Post & Schell P.C.
ATTORNEYS AT LAW

17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
717-731-1970 Main
717-731-1985 Main Fax
www.postschell.com

Garrett P. Lent

glent@postschell.com
717-612-6032 Direct
717-731-1985 Direct Fax

April 24, 2026

VIA ELECTRONIC FILING

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
400 North Street, Second Floor
Harrisburg, PA 17120

Re: Letter of Notification of Mid-Atlantic Interstate Transmission, LLC for Approval of the Mehoopany-North Meshoppen No. 1 And No. 2 115 Kilovolt Transmission Lines Rebuild Project In Auburn Township, Susquehanna County And Washington Township, Wyoming County, Pennsylvania Docket No.

Dear Secretary Homsher:

Enclosed for filing on behalf of Mid-Atlantic Interstate Transmission, LLC ("MAIT") is a Letter of Notification ("LON"), requesting approval for the Mehoopany-North Meshoppen No. 1 and No. 2 115 Kilovolt Transmission Lines Rebuild Project ("Mehoopany-North Meshoppen Rebuild Project" or "Project"). This LON is filed pursuant to the Pennsylvania Public Utility Commission's ("Commission") regulations at 52 Pa. Code § 57.72(d)(1). Copies of this LON have been served upon the parties as required by 52 Pa. Code § 57.74 and noted on the attached Certificate of Service.

Subject to the Commission's approval, the Project has a scheduled construction date of July 20, 2026, to meet an in-service date of June 1, 2028. To support this construction timeline, MAIT respectfully requests Commission's review and approval of the LON on or before the July 16, 2026 Public Meeting in order to allow construction to commence immediately thereafter.

REQUEST FOR CONFIDENTIAL TREATMENT OF PROPRIETY AND NON-PUBLIC INFORMATION

MAIT further notes that Attachment A included in this filing contains **CONFIDENTIAL AND PROPRIETARY,** non-public information: Attachment A is designated "**CONFIDENTIAL**"

because it contains sensitive information, including commercially sensitive pricing information for certain Project components. In addition, Attachment A has been clearly marked as "**CONFIDENTIAL**" and removed from the public version of the above-captioned Letter of Notification and associated materials and separately filed with the Commission. MAIT requests that Attachment A be given confidential treatment by the Commission, including its various offices and bureaus. That is, MAIT requests that Attachment A be excluded from the Commission's public document folder and that the confidential copies not be disclosed to the public. MAIT will provide copies of these materials to parties in this proceeding that have executed appropriate Non-Disclosure Certificates pursuant to a Stipulated Protective Agreement or Protective Order.

If you have any questions pertaining to this matter, please do not hesitate to contact me.

Respectfully submitted,

Garrett P. Lent

GPL/sll
Attachment

CC: Deb Backer – Bureau of Technical Utility Services (via email; w/attachment)
Jordan Van Order – Bureau of Technical Utility Services (via email; w/attachment)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Letter of Notification has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 57.72(d)(3).

VIA CERTIFIED MAIL: RETURN RECEIPT REQUESTED

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

Office of Small Business Advocate
555 Walnut Street
1st Floor, Forum Place
Harrisburg, PA 17101

Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement
P.O. Box 3265
Harrisburg, PA 17105-3265

Office of Chief Counsel Real Property Division
Pennsylvania Department of Transportation
Commonwealth Keystone Building
400 North Street, 9th Floor
Harrisburg, PA 17120

Ms. Andrea Lowery, Executive Director
Pennsylvania Historical & Museum Commission
300 North Street
Harrisburg, PA 17120-0024

Pennsylvania Department of Environmental Protection
ATTN: Office of Chief Counsel
400 Market St., 9th Floor
Harrisburg, PA 17105
CC: Secretary to PADEP Chief Counsel

Pennsylvania Department of Environmental Protection
ATTN: Bureau of Waterways Engineering and Wetlands
400 Market Street
Harrisburg, PA 17101

Pennsylvania Department of Environmental Protection
2 Public Square
Wilkes-Barre, PA 18701

U.S. Army Corps of Engineers
Baltimore Regulatory District
2 Hopkins Plaza
Baltimore, MD 21201

Pennsylvania Game Commission
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Ave.
Harrisburg, PA 17110-9797

US Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, PA 16801-4850

Pennsylvania Department of Conservation and Natural Resources
P.O. Box 8552
Harrisburg, PA 17015

Pennsylvania Fish and Boat Commission
595 East Rolling Ridge Drive
Bellefonte, PA 16823

Susquehanna County Conservation District
89 Industrial Drive
Montrose, PA 18801

Wyoming County Conservation District
6052 SR 6
Tunkhannock, PA 18657

Dan Strohl, Supervisor
Auburn Township Board of Supervisors
5675 SR 3001
Meshoppen, PA 18630

Gilbert Oakes, Supervisor
Auburn Township Board of Supervisors
5675 SR 3001
Meshoppen, PA 18630

Dan Trivett, Supervisor
Auburn Township Board of Supervisors
5675 SR 3001
Meshoppen, PA 18630

Emily Cleveland
Auburn Township Secretary/Treasurer
5675 SR 3001
Meshoppen, PA 18630

Alan M. Hall, Chairman
Susquehanna County Commissioners
31 Lake Avenue
Montrose, PA 18801

David Darrow, Vice-Chair
Susquehanna County Commissioners
31 Lake Avenue
Montrose, PA 18801

Robert McNamara, Commissioner
Susquehanna County Commissioners
31 Lake Avenue
Montrose, PA 18801

Patti Peltz, Director
Susquehanna County Department of
Planning and Development
81 Public Avenue (P.O. Box 218)
Montrose, PA 18801

Carol Ainey, Deputy Director
Susquehanna County Department of
Planning and Development
81 Public Avenue (P.O. Box 218)
Montrose, PA 18801

Curtis Hepler, Chairman & Public Director
Susquehanna County Conservation District
89 Industrial Drive
Montrose, PA 18801

Lillian Theophanis, Vice Chairman & Public
Director
Susquehanna County Conservation District
89 Industrial Drive
Montrose, PA 18801

Wayne Allen, Supervisor
Washington Township Board of Supervisors
184 Keiserville Road
Tunkhannock, PA 18657

Daniel P Huff Jr., Supervisor
Washington Township Board of Supervisors
184 Keiserville Road
Tunkhannock, PA 18657

William E Ball III., Supervisor
Washington Township Board of Supervisors
184 Keiserville Road
Tunkhannock, PA 18657

Dale Yarasavage, Chairman
Washington Township Planning
Commission
184 Keiserville Road
Tunkhannock, PA 18657

Mary Sayre, Chairman
Washington Township Planning Commission
184 Keiserville Road
Tunkhannock, PA 18657

Brian Bartels, Chairman
Washington Township Planning Commission
184 Keiserville Road
Tunkhannock, PA 18657

Darrin Chesner, Chairman
Washington Township Planning Commission
184 Keiserville Road
Tunkhannock, PA 18657

Richard Wilbur, Chairman
Wyoming County Commissioners
1 Courthouse Square
Tunkhannock, PA 18657

Thomas S. Henry, Chairman
Wyoming County Commissioners
1 Courthouse Square
Tunkhannock, PA 18657

Randy Ehrenzeller, Chairman
Wyoming County Office of Community Planning
1 Courthouse Square, 3rd Floor
Tunkhannock, PA 18657

Ed Coleman, Vice Chairman
Wyoming County Office of Community Planning
1 Courthouse Square, 3rd Floor
Tunkhannock, PA 18657

Dorne White, Chairman
Wyoming County Conservation District
6052 State Route 6
Tunkhannock, PA 18657

Neil Tague, Vice-Chairman
Wyoming County Conservation District
6052 State Route 6
Tunkhannock, PA 18657

Amy A. French
9 East French Lane
Meshoppen, PA 18630

Arthur & Betsy Cole
835 State Route 3007
Meshoppen, PA 18630

Charles Jr & Patricia Mccarthy
4698 State Route 3004
Meshoppen, PA 18630

Chris & Jamie Cole
130 Cole Farm Road
Meshoppen, PA 18630

Christopher Dodge & Elvira Brown
P.O. Box 15
Tunkhannock, PA 18657

Donald Sr & Deborah Remington
19 East French Lane
Meshoppen, PA 18630

Douglas & Barbara Davis
324 Frantz Road
Meshoppen, PA 18630

Eben Howard Harvey III
P.O. Box 94
Meshoppen, PA 18630

Edward J. Manning
11 Vosburg Road
Tunkhannock, PA 18657

FR Mehoopany Property Holding, LP
P.O. Box 599
Cincinnati, OH 45201

Hilary J. Poepperling
210 Vaow Road
Meshoppen, PA 18630

Jeffrey & Mary Frantz
566 Frantz Road
Meshoppen, PA 18630

Jeffrey L. Schultz
5551 Chestnut Street
Emmaus, PA 18049

Jolene Hillard
661 Stanek Road
Meshoppen, PA 18630

Kenneth & Connie Teel
831 State Route 4015
Meshoppen, PA 18630

Luke, Roger, Gina & Wayne Sherwood
619 State Route 4015
Meshoppen, PA 18630

Matthew & Jessica Miller
582 Briar Ridge Road
Meshoppen, PA 18630

Michael Houser & Rick Hiduk
156 Dietrich Lane
Meshoppen, PA 18630

Paula C. Foux
355 Heaven Bound Lane
Meshoppen, PA 18630

Procter & Gamble
P.O. Box 599
Cincinnati, OH 45201

Rabbit Hollow
69 Putnam Street
Tunkhannock, PA 18657

Raymond & Joyce Ryce
316 Frantz Road
Meshoppen, PA 18630

Ryan & Amanda Ruark
512 Briar Ridge Road
Meshoppen, PA 18630

Saint Joachims Parrish
P.O. Box 186
Tunkhannock, PA 18657

Stewart & Melissa Manning
38 Mason Road
Tunkhannock, PA 18657

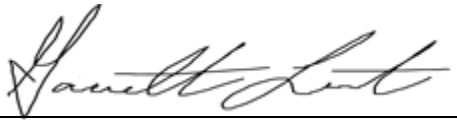
UGI Manning LLC
604 Technology Drive
Suite 130
Canonsburg, PA 15317

William M. Ruark
524 State Route 4015
Meshoppen, PA 18630

WLR Family Limited Partnership
524 State Route 4015
Meshoppen, PA 18630

Wood Duck Acres
910 Gay Street
Phoenixville, PA 19460

Date: April 24, 2026



Garrett P. Lent

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

LETTER OF NOTIFICATION OF MID-ATLANTIC INTERSTATE TRANSMISSION, LLC FOR APPROVAL OF THE MEHOOPANY-NORTH MESHOPPEN NO. 1 AND NO. 2 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT IN AUBURN TOWNSHIP, SUSQUEHANNA COUNTY AND WASHINGTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA	:	**Docket No. _____**

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

Pursuant to 52 Pa. Code § 57.72(d)(1)(i) and (d)(1)(v), Mid-Atlantic Interstate Transmission, LLC ("MAIT") hereby files this Letter of Notification ("LON") requesting approval from the Pennsylvania Public Utility Commission ("Commission") to rebuild approximately 6.6 miles of the existing single circuit Mehoopany-North Meshoppen No. 1 and No. 2 115 Kilovolt ("kV") Transmission Lines ("Mehoopany-North Meshoppen Rebuild Project" or "Project") as described herein. This Project will be constructed in Auburn Township, Susquehanna County, and Washington Township, Wyoming County, Pennsylvania. Construction of the Project is anticipated to begin on or about July 20, 2026, and the Project is forecasted to be in service by June 1, 2028. To support this construction timeline, MAIT respectfully requests that the Commission issue its final ruling by the Public Meeting scheduled for July 16, 2026.

In this Project, MAIT proposes to rebuild approximately 6.6 miles of two existing 115 kV

single circuit transmission lines from the North Meshoppen Substation to the Mehoopany Substation, both of which are MAIT-owned. The Project is needed to upgrade the existing conductor as a result of PJM Interconnection, LLC's ("PJM") Market Efficiency Analysis, which aims to improve electric transmission economic efficiencies and alleviate electric transmission constraints.

In support thereof, MAIT submits as follows:

I. INTRODUCTION

1. MAIT is a public entity subject to the jurisdiction of the Commission over the siting and construction of transmission lines pursuant to Chapter 57, Subchapter G, of the Commission's regulations.

2. The address of MAIT's principal business office is:

Mid-Atlantic Interstate Transmission, LLC
341 White Pond Drive
Akron, OH 44320

3. The attorneys representing MAIT in this matter authorized to receive notices and communications on MAIT's behalf are:

Tori L. Giesler (ID #207742)
FirstEnergy Service Company
341 White Pond Dr.
Akron, OH 44320
(610) 921-6658
tgiesler@firstenergycorp.com

David B. MacGregor (ID #28804)
Garrett P. Lent (ID #321566)
Megan Rulli (ID # 331981)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
(717) 731-1970
dmacgregor@postschell.com
glent@postschell.com
mrulli@postschell.com

MAIT agrees to accept electronic service in this proceeding.

4. MAIT also requests that a copy of all notices and communications regarding this matter be sent to:

Mary Anderson
Transmission Siting, Supervisor
FirstEnergy Service Company
341 White Pond Drive
Akron, OH 44320
mcargill@firstenergycorp.com

5. MAIT provides the following attached Exhibits in support of this LON:

- **Exhibit 1:** A depiction of the general location of the Project on a topographic map;
- **Exhibit 2:** A depiction of the general layout of the Project;
- **Exhibit 3:** A depiction of the typical configuration for a 115 kV single circuit light duty steel pole delta suspension structure;
- **Exhibit 4:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel pole vertical suspension pull-off structure;
- **Exhibit 5:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel pole delta suspension tangent with shield wire dead end structure;
- **Exhibit 6:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel pole horizontal dead end structure;
- **Exhibit 7:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel vertical dead end angle structure;
- **Exhibit 8:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel vertical tangent dead end structure;
- **Exhibit 9:** A depiction of the typical configuration for a 115 kV single

circuit self-supported tubular steel delta dead end structure;

- **Exhibit 10:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel pole horizontal dead end structure;
- **Exhibit 11:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel vertical dead end structure;
- **Exhibit 12:** A depiction of the typical configuration for a 115 kV single circuit self-supported tubular steel pole horizontal dead end structure;
- **Exhibit 13:** A depiction of the typical configuration for a 115 kV single circuit light duty steel pole delta suspension with shield wire dead end structure;
- **Exhibit 14:** A copy of the Waters Delineation Report prepared by Civil & Environmental Consultants, Inc. ("CEC"), dated November 2025;
- **Exhibit 15:** A copy of the Pennsylvania Natural Diversity Inventory ("PNDI") Receipt, dated March 17, 2025;
- **Exhibit 16:** Pennsylvania State Historic Preservation Office ("SHPO") clearance letters dated November 20, 2024 and February 25, 2025; and
- **Exhibit 17:** A list of entities or landowners impacted or potentially impacted by this project.

6. This Letter of Notification and accompanying Exhibits, which are incorporated herein by reference, contain all the information required by 52 Pa. Code § 57.72(d)(4).

II. THE PROJECT

A. NEED FOR THE PROJECT

7. MAIT proposes rebuilding approximately 6.6 miles of two existing 115 kV single circuit transmission lines from the North Meshoppen Substation to the Mehoopany Substation, both of which are MAIT-owned. The Project is needed to upgrade the existing conductor as a result of PJM's Market Efficiency Analysis, which aims to improve electric transmission economic efficiencies and alleviate electric transmission constraints.

1. Existing System

8. The two existing single circuit Mehoopany-North Meshoppen No.1 and No. 2 115 kV Transmission Lines extend approximately 6.6 miles from Mehoopany Substation to North

Meshoppen Substation, consist primarily of wood pole construction, and utilize 336.4 kcmil[1] 26/7 Linnet aluminum conductor steel reinforced ("ACSR") conductors with two shielding wire positions. The existing Mehoopany-North Meshoppen 115 kV No. 1 Transmission Line ("NMM1") is shielded by approximately 0.1 miles of two 7#8 Alumoweld shield wires in the static wire position, and approximately 6.5 miles of two 3/8" extra high strength ("EHS") 7 Strands Steel shield wires in the static wire position. The existing Mehoopany-North Meshoppen 115 kV No. 2 Transmission Line ("NMM2") is shielded by approximately 0.1 miles of one 7#8 Alumoweld shield wire, approximately 6.5 miles of one optical ground wire ("OPGW") fiber cable, and one 3/8" EHS 7 Strands Steel in the static wire position. One all-dielectric self-supporting ("ADSS") fiber cable is installed on stand-alone poles from existing Structure #1F on NMM2 to complete the fiber connection into North Meshoppen Substation.

9. NMM1 and NMM2 are presently supported by approximately 110 existing single circuit wood and steel pole structures, which include five steel monopole structures, two steel three-pole guyed structures, two steel three-pole structures, 81 wood H-Frame structures, and 20 wood three-pole guyed structures. The existing structures range from approximately 32 to 76 feet in height with an average above ground height of 58 feet. The existing span lengths range from approximately 99 to 1,607 feet, with an average length of approximately 625 feet.

10. A depiction of the general location of the Project on a topographic map is provided in **Exhibit 1.**

2. Identification of Need

11. PJM, in its capacity as the regional Transmission Planner, Planning Authority, Transmission Operator, Balancing Authority and Reliability Coordinator, identifies the need and

[1] Kcmil stands for 1,000 circular mils and is a unit of measurement for the cross-sectional area of electrical conductors.

timing for mandatory transmission system upgrades as part of the reliability planning, economic planning, and interconnection planning processes to preserve the reliability of the electric grid under its operational control as the Regional Transmission Organization. The PJM planning process is an 18-month cycle starting in September of every calendar year. The process ultimately produces a PJM Board-approved Regional Transmission Expansion Plan ("RTEP") 18 months later (February). The RTEP consists of transmission system upgrades produced from one or more of four processes: reliability planning, economic planning, interconnection planning, and local planning.

12. Baseline upgrades are identified as part of the reliability planning and economic planning analysis. The analysis consists of a comprehensive series of detailed studies that are designed to satisfy not only PJM's reliability planning criteria, but also those of the applicable transmission owners, including FirstEnergy Transmission Planning Criteria, as well as the North American Electric Reliability Corporation ("NERC") and ReliabilityFirst Corporation reliability standards. The transmission planning process and the baseline RTEP projects selected for construction under that process are required by the applicable reliability and planning criteria and once approved by PJM, become mandatory. Specifically, transmission owners are obligated to build these projects under Section 1.7 of Schedule 6 of the PJM Operating Agreement.[2] These projects are identified with an upgrade identification number starting with the letter "b" followed by a four-digit number.

13. The proposed Project was developed to mitigate thermal loading violations of FirstEnergy and PJM Planning Criteria that were identified as a part of a series of PJM's 2023 RTEP analyses for model year 2028. Specifically, the proposed Project addresses thermal

[2] Available at: https://www.pjm.com/directory/merged-tariffs/oa.pdf.

violations identified under NERC Standard TPL-001-5.1[3] for P1-2 and P2-3 planning events. A P1-2 planning event is the loss of a single transmission circuit, and a P2-3 planning event is an internal breaker fault. The proposed Project will address the thermal overload violations identified in the 2023 RTEP model for Summer 2028, under the PJM Individual Plant Deliverability[4] analysis. The analysis indicated a planning criteria violation, *i.e.*, a thermal overload violation, on the NMM1 line upon loss of the NMM2 line, and a thermal overload violation on the NMM2 line upon loss of the NMM1 line. Upon the loss of the NMM1 line, the NMM2 line loads to 101.8% of the existing summer emergency rating of 160 megavolt-ampere ("MVA"). Upon the loss of the NMM2 line, the NMM1 line loads to 101.8% of the existing summer emergency rating of 160 MVA.

14. The analysis also indicated a planning criteria violation, *i.e.*, a thermal overload violation, on the NMM2 line for a breaker failure at Mehoopany on Breakers B1 or B11. There is also a thermal overload violation on the NMM1 line for a breaker failure at Mehoopany on Breakers B2 or B12. Upon the loss of the NMM1 line, the NMM2 line loads to 101.8% of the existing summer emergency rating of 160 MVA. Upon the loss of the NMM2 line, the NMM1 line loads to 101.8% of the existing summer emergency rating of 160 MVA.

15. The proposed Project was presented at the October 19, 2023, PJM Mid-Atlantic Subregional RTEP Committee ("SRRTEP") meeting.[5] At the November 16, 2023, PJM Mid-Atlantic SRRTEP meeting, baseline upgrade identification numbers b3791 and b3792 were assigned to the Project with a projected in-service date of June 1, 2028.[6]

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[3] Available at: https://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-5.1.pdf.
[4] Available at: https://www.pjm.com/-/media/DotCom/documents/manuals/archive/m14b/m14bv55-pjm-regional-transmission-planning-process-12-20-2023.ashx.
[5] Available at: 20231019-item-01---srrtep-mid-atlantic---reliability-analysis-update.pdf.
[6] Available at: https://www.pjm.com/-/media/committees-groups/committees/srrtep-ma/2023/20231116/20231116-item-01---srrtep-mid-atlantic---reliability-analysis-update.ashx.

16. Upon completion of this Project, the ratings of the NMM1 and NMM2 lines will increase from a 133/160 MVA (Summer Normal/Summer Emergency) rating to a 232/282 MVA (Summer Normal/Summer Emergency) rating.

17. Due to the nature of the Project, MAIT did not consider any alternatives to address the thermal loading violations.

B. THE PROPOSED PROJECT

18. For this Project, MAIT proposes to rebuild the two existing 6.6-mile NMM1 and NMM1 transmission lines to accommodate higher capacity conductor, 795 kcmil 26/7 Drake ACSR. The Project will begin at North Meshoppen Substation and will extend south to Mehoopany Substation. A depiction of the general location of the Project is provided in **Exhibit 1**. A depiction of the general layout for the Project is provided in **Exhibit 2**.

19. The Project will consist of two single circuit lines elevated above the ground by approximately nine existing steel pole structures that will be modified, and 99 new steel poles that will be either directly embedded or supported on a drilled pier concrete foundation, as further described below. Two existing wood H-frame structures will be removed and not replaced, as shown on page 4 of **Exhibit 2**. The proposed new steel poles will range in height from 54 to 104 feet, with an average above ground height of 90 feet. The proposed span lengths range from 94 to 1,756 feet, with an average length of approximately 605 feet.

20. In order to accommodate the higher capacity conductor, MAIT proposes to rebuild the transmission lines utilizing structures that are either directly embedded or supported on a drilled pier concrete foundation in a horizontal configuration. Preliminary engineering indicates the following 99 steel structure types will be installed: approximately 63 single circuit light duty steel pole delta suspension insulator tangent structures, as depicted in **Exhibit 3**; approximately

four single circuit self-supported tubular steel pole vertical suspension pull-off structures, as depicted in **Exhibit 4**; approximately two single circuit self-supported tubular steel pole delta suspension tangent with shield wire dead end structures, as depicted in **Exhibit 5**; approximately two single circuit self-supported tubular steel pole horizontal davit arm dead end structures, as depicted in **Exhibit 6**; approximately seven single circuit self-supported tubular steel vertical dead end structures, as depicted in **Exhibit 7**; approximately six single circuit self-supported tubular steel vertical tangent dead end structures, as depicted in **Exhibit 8**; approximately four single circuit self-supported tubular steel delta davit arm dead end structures, as depicted in **Exhibit 9**; one single circuit self-supported tubular steel pole horizontal davit arm dead end with single side shield wire structure, as depicted in **Exhibit 10**; one single circuit self-supported tubular steel vertical dead end with increased phase spacing structure, as depicted in **Exhibit 11**; one single circuit self-supported tubular steel pole horizontal davit arm dead end with increased phase spacing structure, as depicted in **Exhibit 12**; and approximately eight single circuit light duty steel pole delta suspension insulator tangent with shield wire dead end structures, as depicted in **Exhibit 13**.

21. In addition to the new conductor, one shielding wire position is proposed for each transmission line. On NMM1, the new conductor will be shielded by approximately 0.1 miles of one existing 7#8 Alumoweld shield wire, 0.1 miles of one new 7#8 Alumoweld shield wire, 6.2 miles of one new OPGW fiber cable, and 0.2 miles of one new ADSS fiber cable. In addition, 0.1 miles of one new ADSS cable will be installed on distribution poles from new Structure #149 to complete the fiber connection into Mehoopany Substation. On NMM2, the new conductor will be shielded by approximately 0.1 miles of one existing 7#8 Alumoweld shield wire, 6.3 miles of one new OPGW fiber cable, and 0.2 miles of one new ADSS cable.

22. The individual structures are designed to carry the maximum conductor loads anticipated at each structure location for the conductors and line configuration. Engineering assessed design solutions taking into consideration constructability, access, maintenance, and permitting requirements to identify a transmission line design that would carry the load of the increased weight conductor. The second-best alternative to the proposed design would be to widen the right-of-way ("ROW") to accommodate an entirely H-frame steel design. This design was not chosen since steel H-frames would pose a greater impact related to widening the ROW, including the need for tree clearing and the overall increased risk for potential impacts on environmental resources.

23. MAIT will use advanced technology as part of the proposed Project. MAIT will install OPGW on the proposed Project, which is a type of overhead ground wire integrating optical fibers within its structure. OPGW is used in transmission line applications as an alternative to traditional static wire. The primary purpose of the OPGW is to shield transmission conductors from lightning. However, the OPGW also provides a telecommunication path with the added benefit of optical fibers, making it a reliable medium for power system communication, protection, and control through high-speed data transmission. This integration of power and communication facilitates advanced communication for power system monitoring, protection, and automation. OPGW enables real-time data exchange for system protection schemes and supervisory control and data acquisition, which enhances the power system stability and operational flexibility. The optical fibers provide broadband, low-latency communication, which is essential for modern smart grid applications. OPGW is designed to withstand harsh environmental conditions and is installed at the top of a transmission line structure. The long lifespan of OPGW and the installation height make it one of the most reliable communication

media with minimal maintenance needs. MAIT will employ good utility practice and efficient engineering design and construction practices in developing the proposed Project.

24. All transmission lines will be owned, operated, and maintained by MAIT. The estimated total cost of the project is approximately $38,884,000. A breakdown of the Project costs is as follows:

Transmission Line Engineering	$2,438,000
Transmission Line Materials	$5,871,000
Transmission Line Construction	$29,182,000
Substation Work	$1,393,000[7]
TOTAL	$38,884,000

CONFIDENTIAL Attachment A contains a further breakdown of these costs, all of which will be paid for by MAIT.

III. HEALTH AND SAFETY

25. The proposed lines will not create any unreasonable risk of danger to public health or safety. The Project will be designed to meet or exceed all requirements of the latest revision of the National Electrical Safety Code ("NESC") under all operating conditions as well as FirstEnergy's current design criteria.

26. FirstEnergy's design criteria require that 115 kV transmission lines have a designed vertical conductor-to-ground clearance of 26 feet. This design value exceeds the NESC minimum of 18.5 feet by a margin of 7.5 feet. In general, FirstEnergy's clearance criteria exceed the NESC minimums by various margins ranging from 2 feet to 7 feet, which are dependent on the voltage and specific clearance measurement. The transmission line maximum operating temperature will be 212 degrees Fahrenheit.

[7] The substation costs consist of approximately $228,000 for engineering, $33,000 for materials and $1,132,000 in construction.

27. The design, construction, and operation of the Project will meet or exceed all applicable safety standards established by the Occupational Safety and Health Administration ("OSHA"). Moreover, the Project will be constructed following MAIT's standard construction practices to perform all work safely. All work will be done in accordance with NESC, OSHA, and all other applicable state and federal requirements.

IV. DESCRIPTION OF THE RIGHT-OF-WAY

28. The Project is located entirely within the existing ROW, which is generally 180 feet wide, and 370 feet wide where NMM1 and NMM2 parallel the East Towanda-North Meshoppen 230 kV Transmission Line outside the North Meshoppen Substation. The centerlines of the rebuilt 115 kV transmission line circuits will follow the centerlines of the existing circuits located within an existing 180-foot ROW easement.

29. To optimize span lengths and balance loads on the new structures, and to avoid wetlands where access is needed to the new structures for installation and future maintenance, the Project will require 16 structures to be shifted along the centerline. Proposed structure relocations will primarily be located within an average of approximately 151 feet of the existing structures along centerline.

30. The existing easements allow for the proposed structure removals, installation of steel structures and the proposed structure shifts within the existing ROW. No new structures are proposed to be located on properties that do not currently have a structure, nor will the Project increase the number of structures on any parcel. No new easement rights are needed for the Project. MAIT will coordinate with all affected landowners for temporary access to support construction as needed.

V. LAND USE AND ENVIRONMENTAL EVALUATION

31. As explained above, construction of the proposed Project will take place entirely within existing ROW. Therefore, it is anticipated that the proposed Project will have minimal incremental impacts on land use in the area.

32. **Exhibit 14** contains a copy of the Waters Delineation Report for the Project conducted between October 2024 and May 2025 by CEC. CEC identified 46 wetlands in the Project area during its delineation, including 43 palustrine emergent wetlands, two palustrine scrub-shrub wetlands, and one palustrine unconsolidated-bottom wetland, as well as 22 streams, including one ephemeral stream, 13 intermittent streams, and eight perennial streams.

33. Stream, floodway, and wetland impacts are anticipated for this Project. Construction of the Project will require temporary crossings of wetlands, streams and floodways associated with equipment access, work areas, and permanent impacts for aerial crossings and pole placement in the wetlands and floodways. Timber matting will be utilized to cross features and will be removed after the construction has been completed. Stream and wetland impacts will be covered under the Pennsylvania Chapter 105.12(a) Waiver 3 for utility and temporary access crossings within the ROW and will be permitted through the Pennsylvania Department of Environmental Protection ("PADEP").

34. For all utility line project work, existing access roads are proposed to be utilized to the maximum extent practicable and non-existing roads and work areas are expected to be temporary. Therefore, coordination with the Pennsylvania Department of Transportation is not anticipated.

35. No tree clearing is anticipated for the Project because construction will take place entirely within the existing ROW. MAIT will implement appropriate measures during

construction, and through the subsequent operation of the Project, to avoid or minimize potential impacts to environmental resources. MAIT will obtain any applicable state and federal permits needed to construct the Project. An erosion and sediment control plan and Pennsylvania Chapter 102 General National Pollution Discharge Eliminate System ("NPDES") permit application and federal Clean Water Act Section 404 General Permit ("GP 8") will need to be approved for the proposed Mehoopany-North Meshoppen Rebuild Project. Temporary road access crossings outside the existing ROW will be covered by the GP 8 permit. The NPDES and the GP 8 permits will need to be approved by the Susquehanna and Wyoming Country Conservation Districts and the Northeast Regional Office of the PADEP.

36. The Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, and U.S. Fish and Wildlife Service have stated that no impacts to protected resources are anticipated by the construction of the Project based on the PNDI review dated March 17, 2025. A copy of the PNDI receipt is attached as **Exhibit 15.**

37. Initial consultation with the SHPO was submitted on November 13, 2024. A partial clearance letter for above ground resources with a request for additional archeological information was received November 20, 2024, and a final clearance letter from SHPO following additional information was received on February 25, 2025. Copies of these letters are attached hereto as **Exhibit 16.** No above-ground surveys were required by SHPO for the Project.

VI. NOTICE

38. Copies of the Letter of Notification will be served upon all state agencies, federal agencies, county agencies, municipalities, and landowners in accordance with 52 Pa. Code §

57.72(d)(3). A list of the same entities or landowners impacted or potentially impacted by this project is provided in **Exhibit 17.**

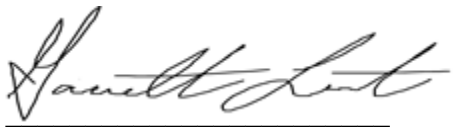
VII. LETTER OF NOTIFICATION

39. MAIT is proceeding by means of a Letter of Notification, instead of a full Application, pursuant to the Commission's regulations at 52 Pa. Code § 57.72(d)(1)(i) and (d)(1)(v).

40. The proposed Project involves the modification of nine existing transmission line structures, the removal of 101 transmission line structures, the installation of 99 transmission line structures, and the removal and replacement of conductor and shield wires for a total distance of approximately 6.6 miles within an existing transmission line ROW. As such, the proposed Project qualifies for use of a Letter of Notification because it will be located entirely within an existing transmission line right-of-way, and the size, character design or configuration of the proposed transmission line will not substantially alter the ROW. *See* 52 Pa. Code § 57.72(d)(1)(i). In addition, the proposed Project qualifies for use of a Letter of Notification because the subject transmission line will be reconstructed and/or reconductored, and the size, character, design or configuration of the proposed reconstruction and/or reconductoring will not substantially alter the existing ROW. *See* 52 Pa. Code § 57.72(d)(1)(v).

41. This Letter of Notification is filed on the date set forth below. As provided in 52 Pa. Code § 57.72(d)(5), the Commission will review and, by order, approve or disapprove this Letter of Notification. If the Commission approves this Letter of Notification, the proposed Project will be constructed as proposed herein without the formal application process set forth at 52 Pa. Code §§ 57.71, et seq.

WHEREFORE, Mid-Atlantic Interstate Transmission, LLC respectfully requests that the Commission review and approve the proposed Mehoopany-North Meshoppen Rebuild Project located in Auburn Township, Susquehanna County, Pennsylvania and Washington Township, Wyoming County, Pennsylvania, that is explained above and in the Exhibits attached hereto, on or before the Public Meeting scheduled for July 16, 2026.



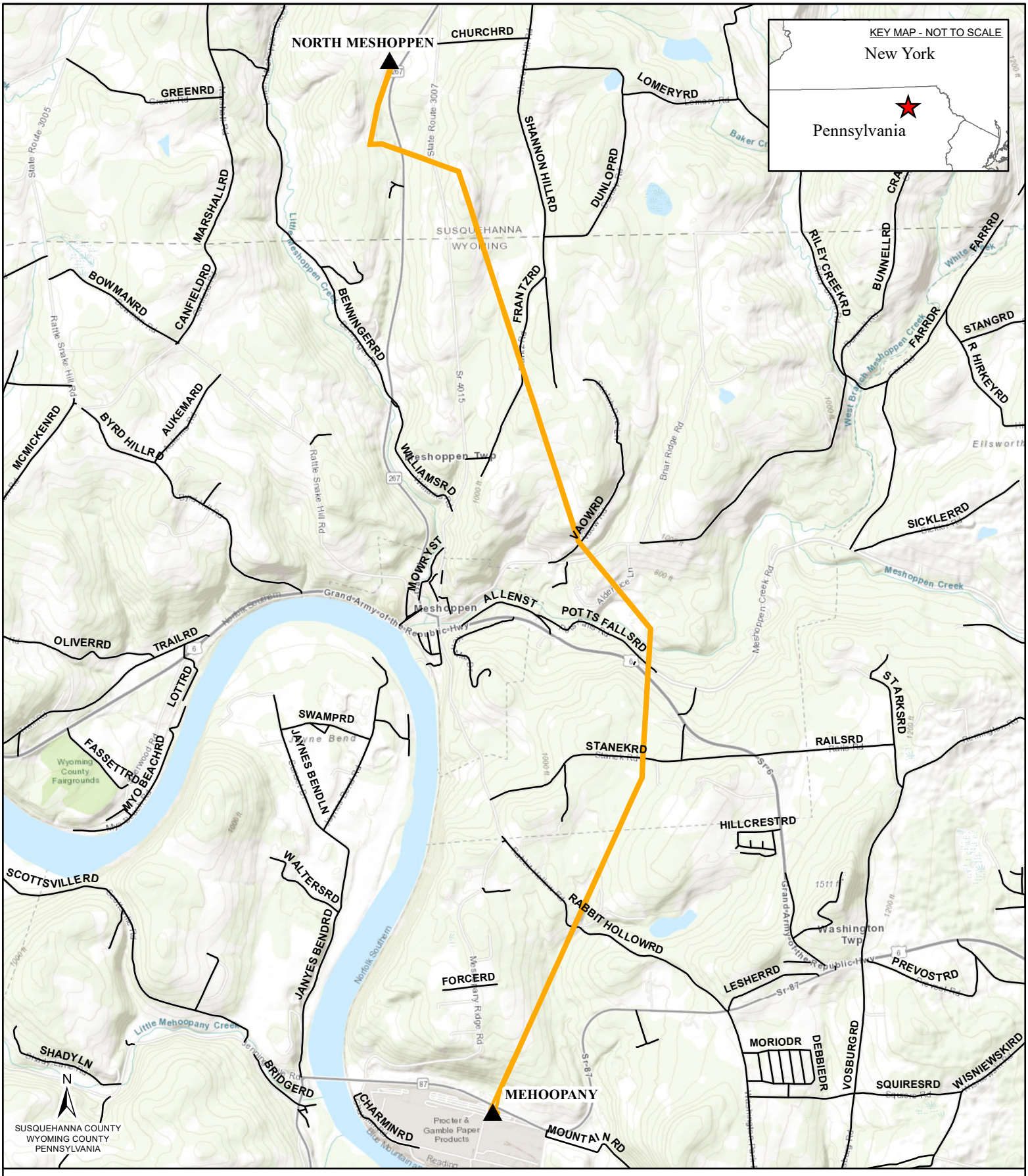
Tori L. Giesler (ID #207742)
FirstEnergy Service Company
341 White Pond Drive
Akron, OH 44320
Phone: (610) 921-6658
Email: tgiesler@firstenergycorp.com

David B. MacGregor (ID #28804)
Garrett P. Lent (ID #321566)
Megan E. Rulli (ID # 331981)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601)
Phone: (717) 731-1970
Fax: (717) 731-1985
E-mail: dmacgregor@postschell.com
E-mail: glent@postschell.com
Email: mrulli@postschell.com

Attorneys for Mid-Atlantic Interstate Transmission, LLC

Date: April 24, 2026

Exhibit 1



LEGEND:

- Existing Substation
- 115 kV
- Road

0 0.25 0.5 1

Miles

Reference:
USGS Topographical Overlay; PennDOT

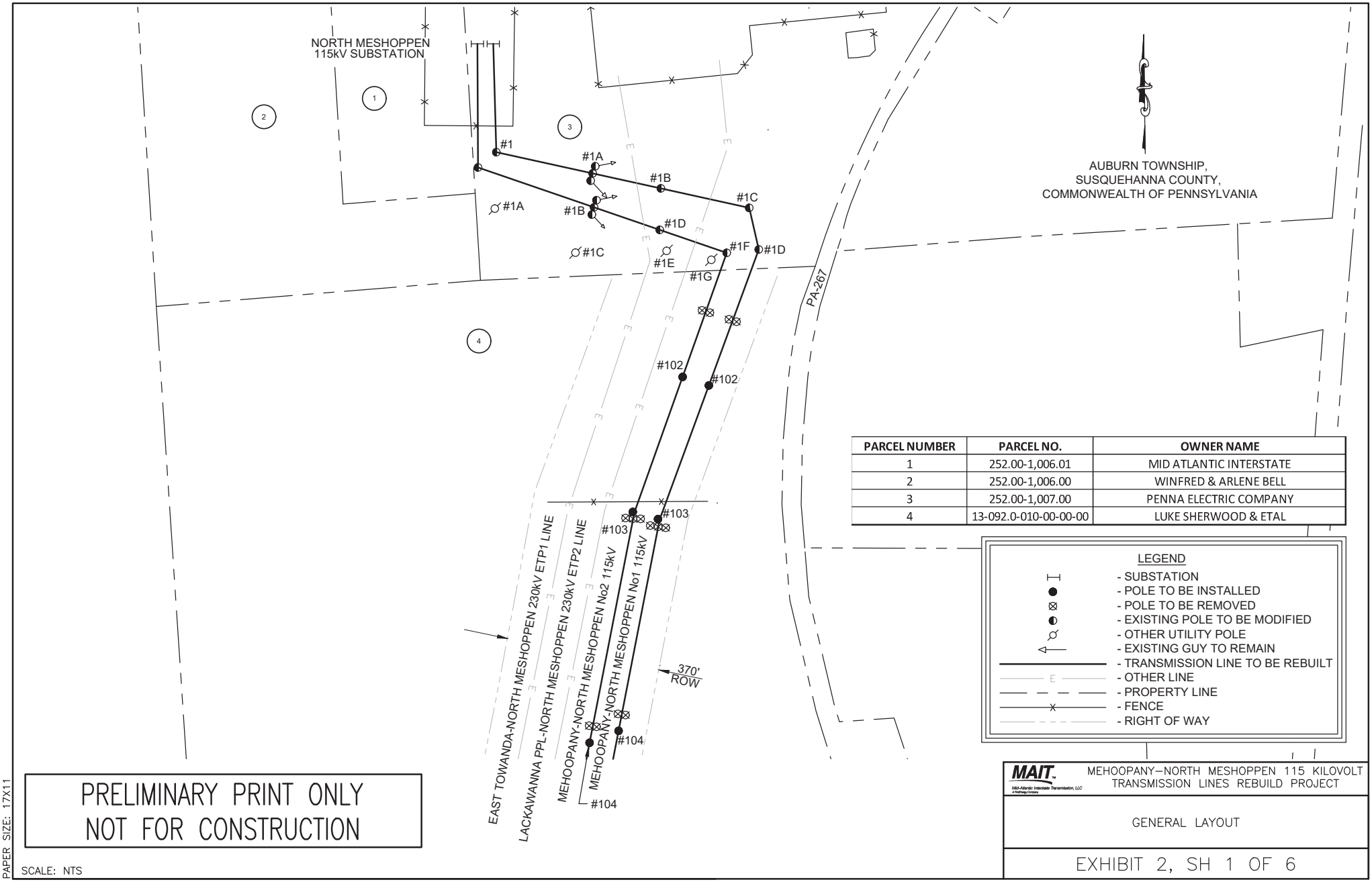
Coordinate System:
NAD 1983 StatePlane Pennsylvania North
FIPS 3701 Feet
Projection: Lambert Conformal Conic

EXHIBIT 1

MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

MEHOOPANY-NORTH MESHOPPEN
115 KILOVOLT TRANSMISSION LINE
REBUILD PROJECT

Exhibit 2



PARCEL NUMBER	PARCEL NO.	OWNER NAME
1	252.00-1,006.01	MID ATLANTIC INTERSTATE
2	252.00-1,006.00	WINFRED & ARLENE BELL
3	252.00-1,007.00	PENNA ELECTRIC COMPANY
4	13-092.0-010-00-00-00	LUKE SHERWOOD & ETAL

LEGEND

- SUBSTATION
- POLE TO BE INSTALLED
- POLE TO BE REMOVED
- EXISTING POLE TO BE MODIFIED
- OTHER UTILITY POLE
- EXISTING GUY TO REMAIN
- TRANSMISSION LINE TO BE REBUILT
- OTHER LINE
- PROPERTY LINE
- FENCE
- RIGHT OF WAY

PRELIMINARY PRINT ONLY
NOT FOR CONSTRUCTION

PAPER SIZE: 17X11

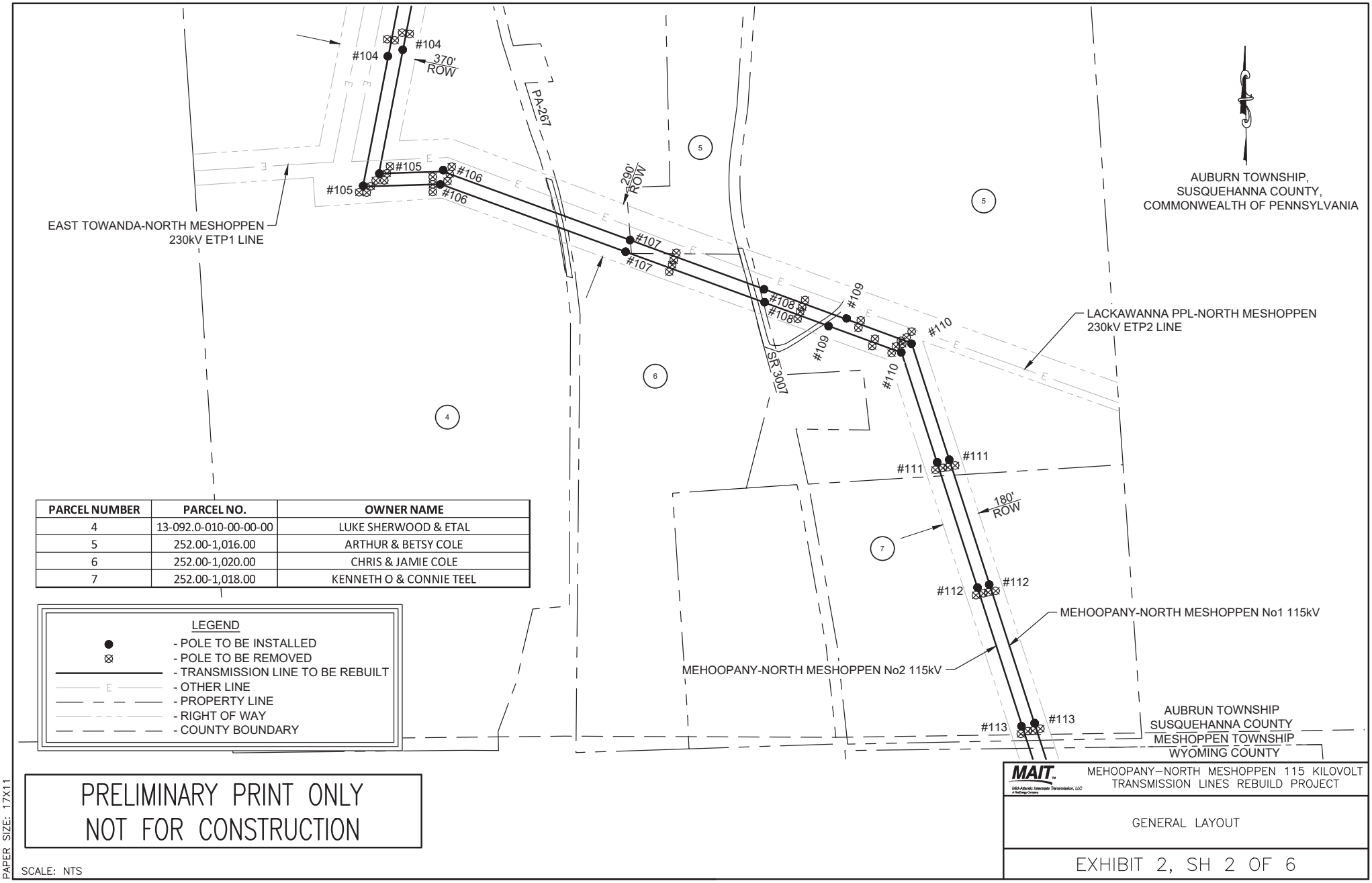
SCALE: NTS

MAIT
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 2, SH 1 OF 6



PARCEL NUMBER	PARCEL NO.	OWNER NAME
4	13-092.0-010-00-00-00	LUKE SHERWOOD & ETAL
5	252.00-1,016.00	ARTHUR & BETSY COLE
6	252.00-1,020.00	CHRIS & JAMIE COLE
7	252.00-1,018.00	KENNETH O & CONNIE TEEL

LEGEND

- POLE TO BE INSTALLED
- POLE TO BE REMOVED
- TRANSMISSION LINE TO BE REBUILT
- OTHER LINE
- PROPERTY LINE
- RIGHT OF WAY
- COUNTY BOUNDARY

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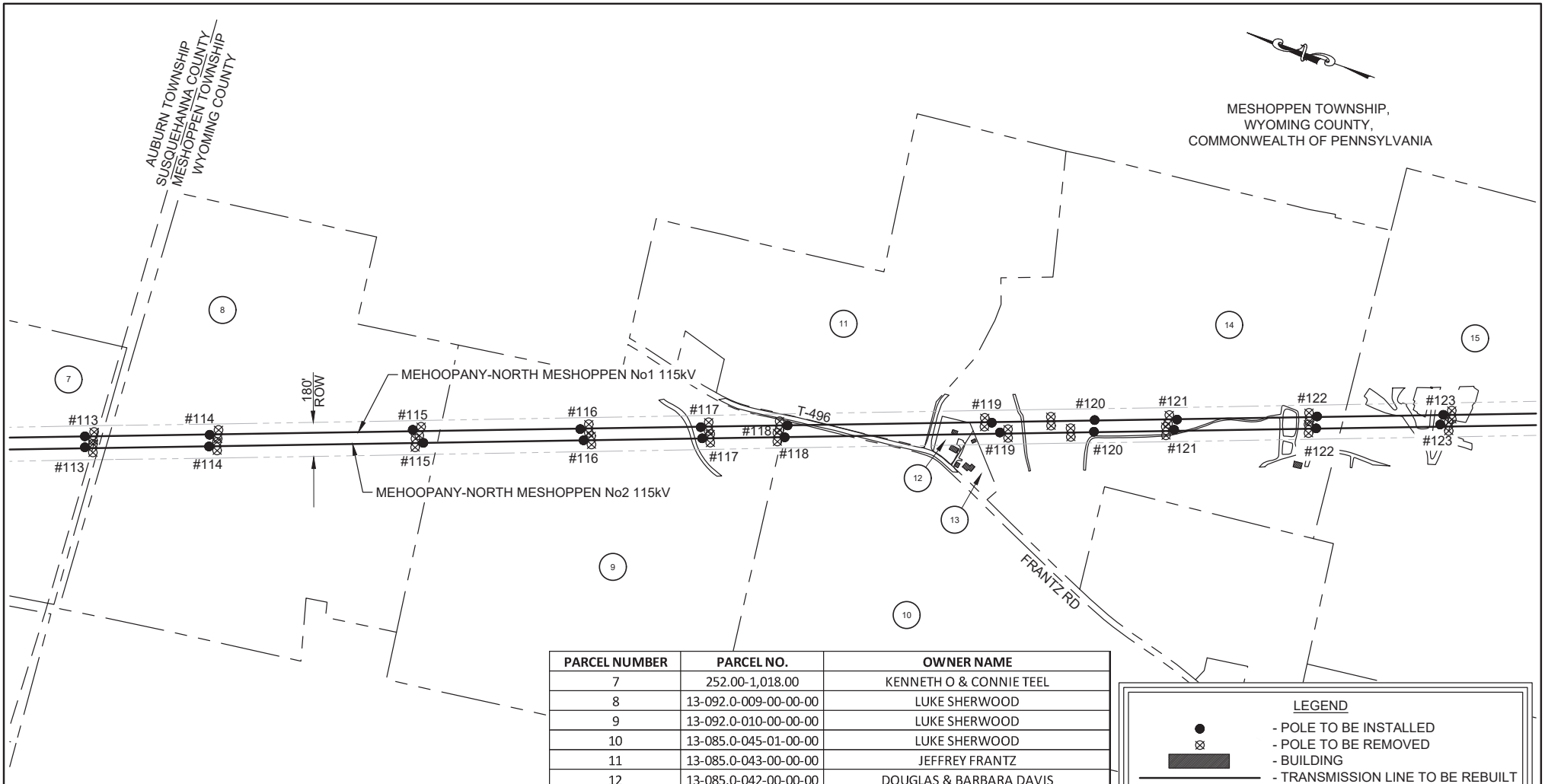
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 2, SH 2 OF 6



PARCEL NUMBER	PARCEL NO.	OWNER NAME
7	252.00-1,018.00	KENNETH O & CONNIE TEEL
8	13-092.0-009-00-00-00	LUKE SHERWOOD
9	13-092.0-010-00-00-00	LUKE SHERWOOD
10	13-085.0-045-01-00-00	LUKE SHERWOOD
11	13-085.0-043-00-00-00	JEFFREY FRANTZ
12	13-085.0-042-00-00-00	DOUGLAS & BARBARA DAVIS
13	13-085.0-041-00-00-00	RAYMOND & JOYCE RYCE
14	13-085.0-043-02-00-00	WLR FAMILY LP
15	13-085.0-034-00-00-00	WLR FAMILY PARTNERSHIP

LEGEND

- POLE TO BE INSTALLED
- POLE TO BE REMOVED
- BUILDING
- TRANSMISSION LINE TO BE REBUILT
- PROPERTY LINE
- RIGHT OF WAY
- COUNTY BOUNDARY

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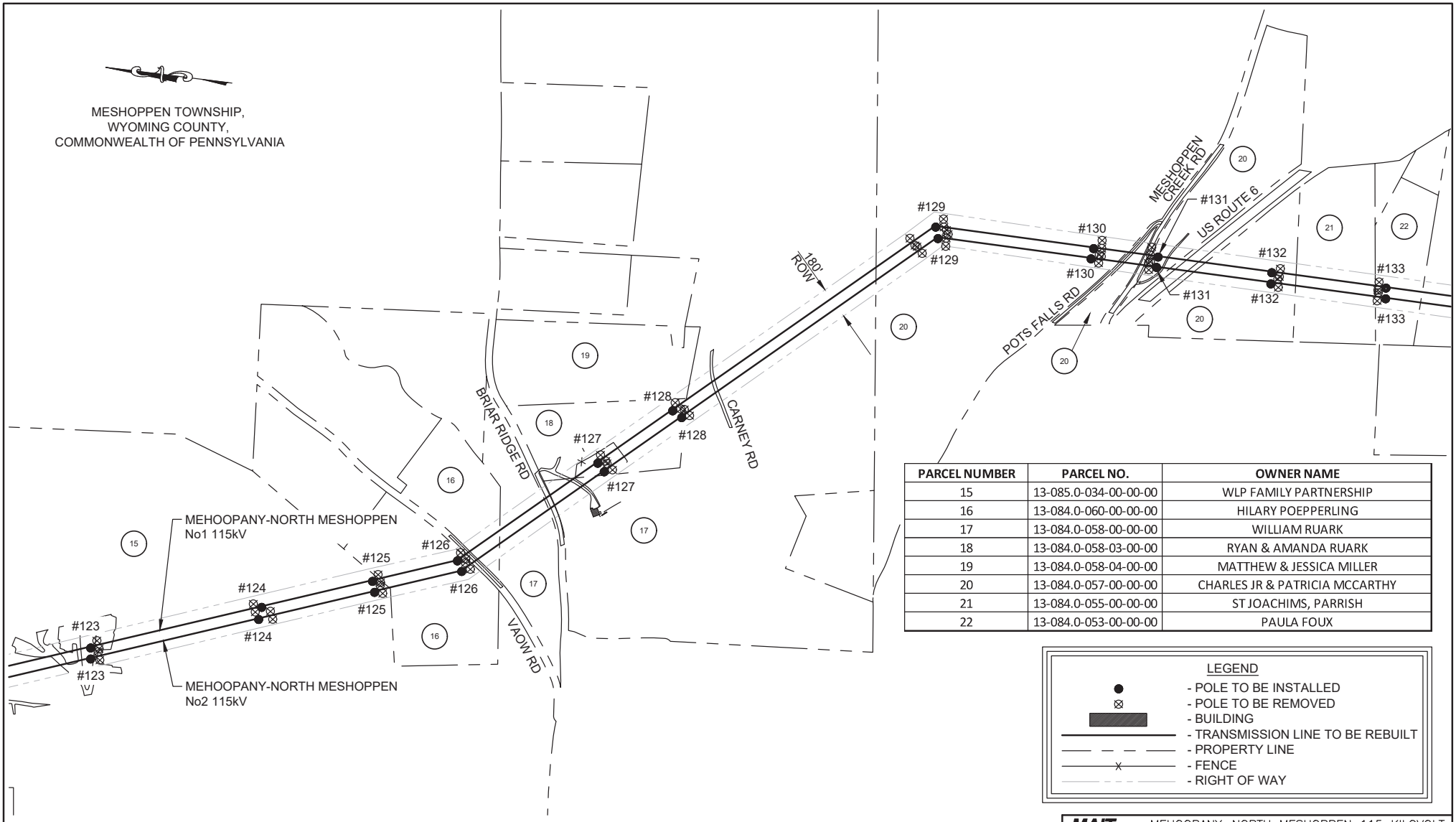
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 2, SH 3 OF 6



PARCEL NUMBER	PARCEL NO.	OWNER NAME
15	13-085.0-034-00-00-00	WLP FAMILY PARTNERSHIP
16	13-084.0-060-00-00-00	HILARY POEPPERLING
17	13-084.0-058-00-00-00	WILLIAM RUARK
18	13-084.0-058-03-00-00	RYAN & AMANDA RUARK
19	13-084.0-058-04-00-00	MATTHEW & JESSICA MILLER
20	13-084.0-057-00-00-00	CHARLES JR & PATRICIA MCCARTHY
21	13-084.0-055-00-00-00	ST JOACHIMS, PARRISH
22	13-084.0-053-00-00-00	PAULA FOUX

LEGEND

- POLE TO BE INSTALLED
- POLE TO BE REMOVED
- BUILDING
- TRANSMISSION LINE TO BE REBUILT
- PROPERTY LINE
- FENCE
- RIGHT OF WAY

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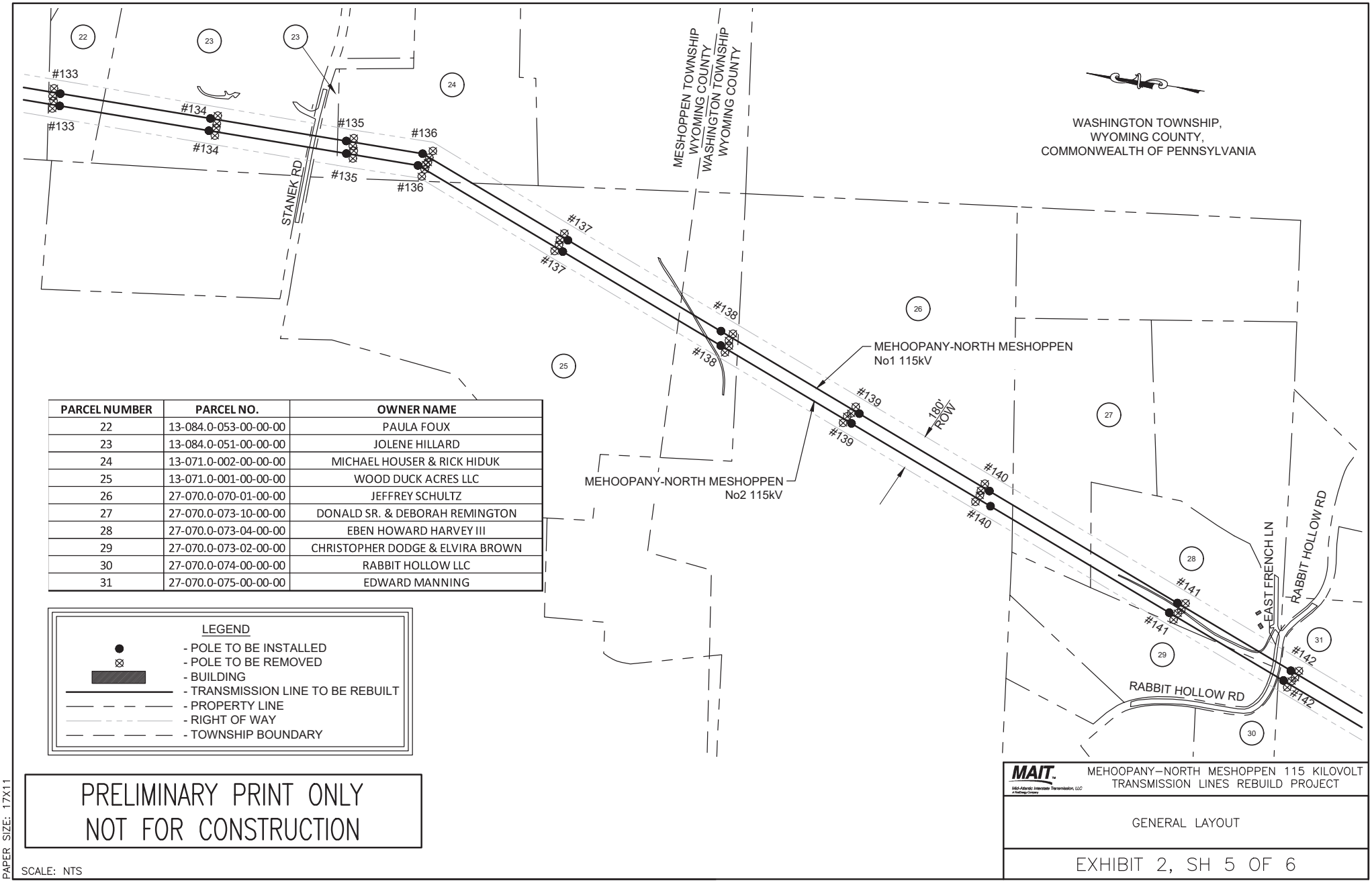
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 2, SH 4 OF 6



PARCEL NUMBER	PARCEL NO.	OWNER NAME
22	13-084.0-053-00-00-00	PAULA FOUX
23	13-084.0-051-00-00-00	JOLENE HILLARD
24	13-071.0-002-00-00-00	MICHAEL HOUSER & RICK HIDUK
25	13-071.0-001-00-00-00	WOOD DUCK ACRES LLC
26	27-070.0-070-01-00-00	JEFFREY SCHULTZ
27	27-070.0-073-10-00-00	DONALD SR. & DEBORAH REMINGTON
28	27-070.0-073-04-00-00	EBEN HOWARD HARVEY III
29	27-070.0-073-02-00-00	CHRISTOPHER DODGE & ELVIRA BROWN
30	27-070.0-074-00-00-00	RABBIT HOLLOW LLC
31	27-070.0-075-00-00-00	EDWARD MANNING

LEGEND

- POLE TO BE INSTALLED
- POLE TO BE REMOVED
- BUILDING
- TRANSMISSION LINE TO BE REBUILT
- PROPERTY LINE
- RIGHT OF WAY
- TOWNSHIP BOUNDARY

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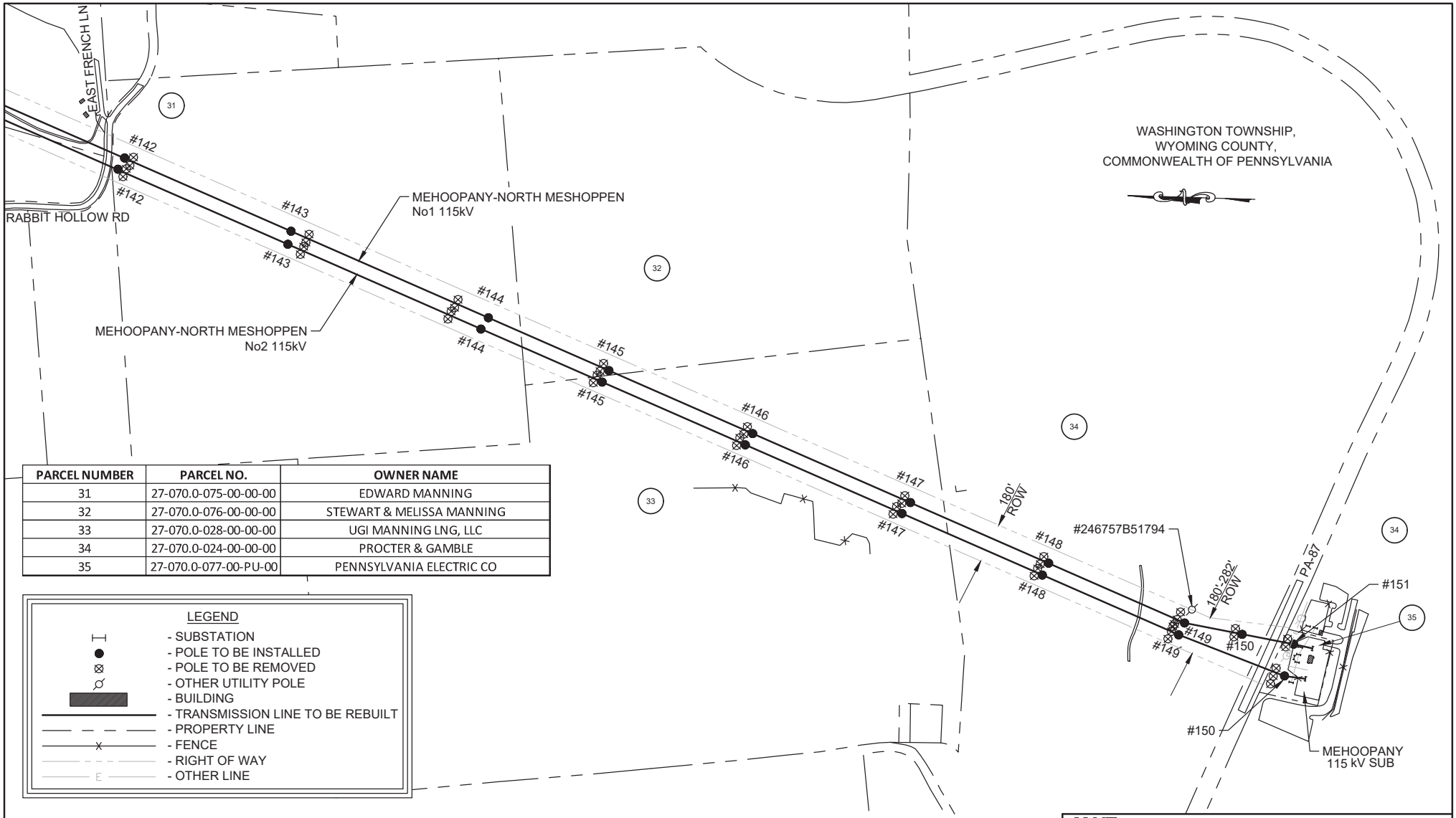
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 2, SH 5 OF 6



PARCEL NUMBER	PARCEL NO.	OWNER NAME
31	27-070.0-075-00-00-00	EDWARD MANNING
32	27-070.0-076-00-00-00	STEWART & MELISSA MANNING
33	27-070.0-028-00-00-00	UGI MANNING LNG, LLC
34	27-070.0-024-00-00-00	PROCTER & GAMBLE
35	27-070.0-077-00-PU-00	PENNSYLVANIA ELECTRIC CO

LEGEND

- SUBSTATION
- POLE TO BE INSTALLED
- POLE TO BE REMOVED
- OTHER UTILITY POLE
- BUILDING
- TRANSMISSION LINE TO BE REBUILT
- PROPERTY LINE
- FENCE
- RIGHT OF WAY
- OTHER LINE

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PAPER SIZE: 17X11

SCALE: NTS

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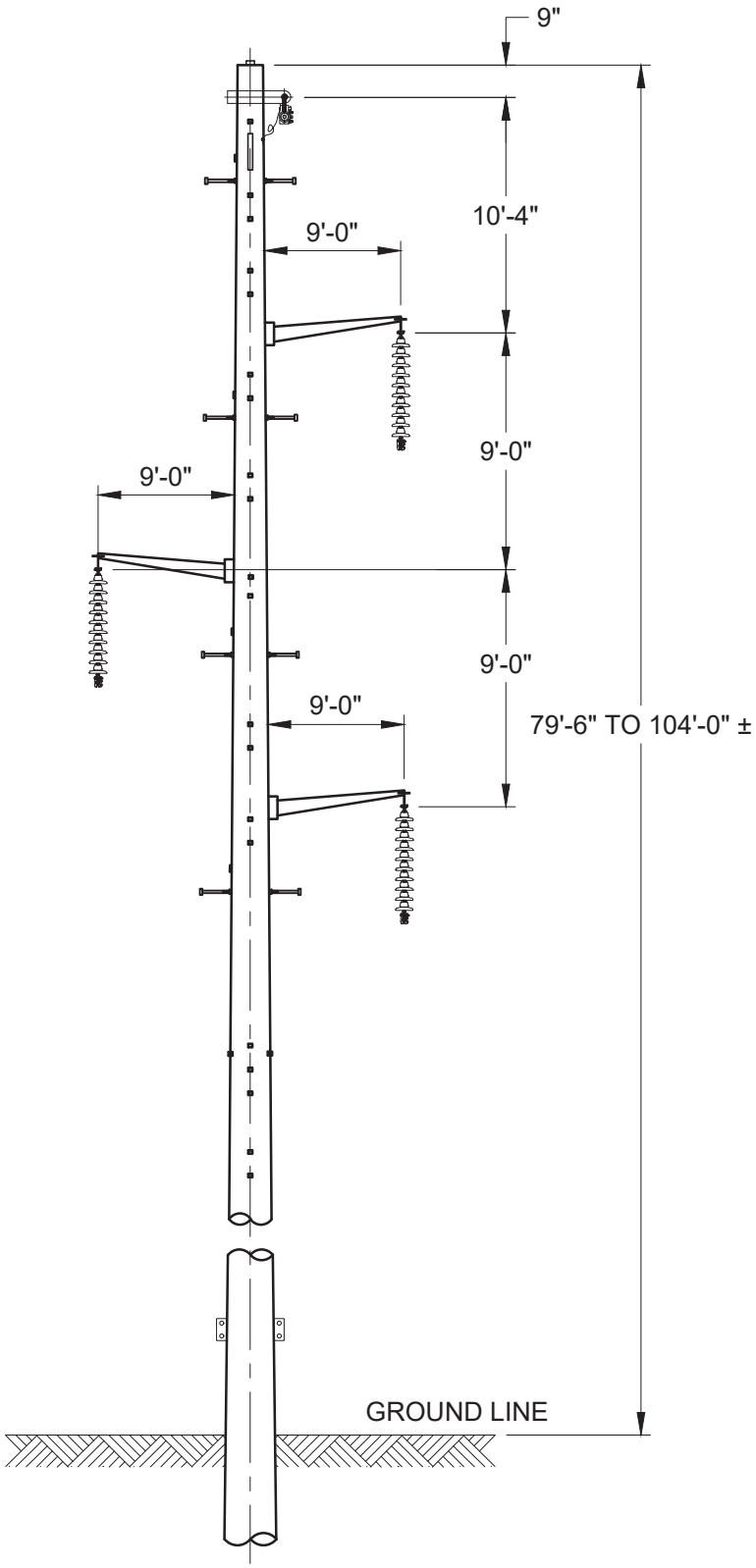
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 2, SH 6 OF 6

Exhibit 3



LINE	STRUCTURE(S)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	102, 108-109, 111-116, 118-125, 127, 132, 134-135, 137-140, 142-143, 145-148, 150
MEHOOPANY-NORTH MESHOPPEN No2 115kV	102, 108-109, 111-116, 118-123, 125, 127, 131-132, 134-135, 137-140, 142-143, 145-148

SCALE: NTS

MAIT™
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A FirstEnergy Company

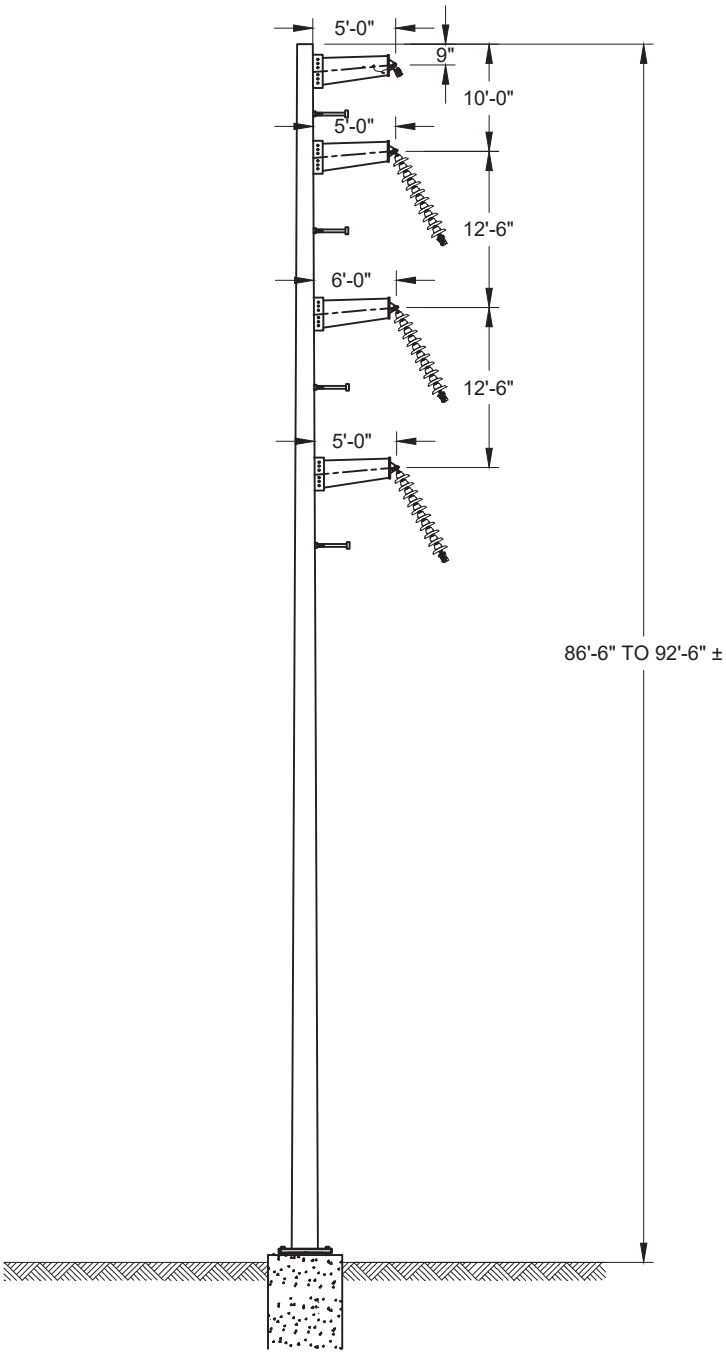
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT LIGHT DUTY STEEL STRUCTURE
DELTA SUSPENSION

EXHIBIT 3

PAPER SIZE: 8.5X11

Exhibit 4



LINE	STRUCTURE(S)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	103 & 106
MEHOOPANY-NORTH MESHOPPEN No2 115kV	103 & 106

SCALE: NTS

PAPER SIZE: 8.5X11

MAIT™
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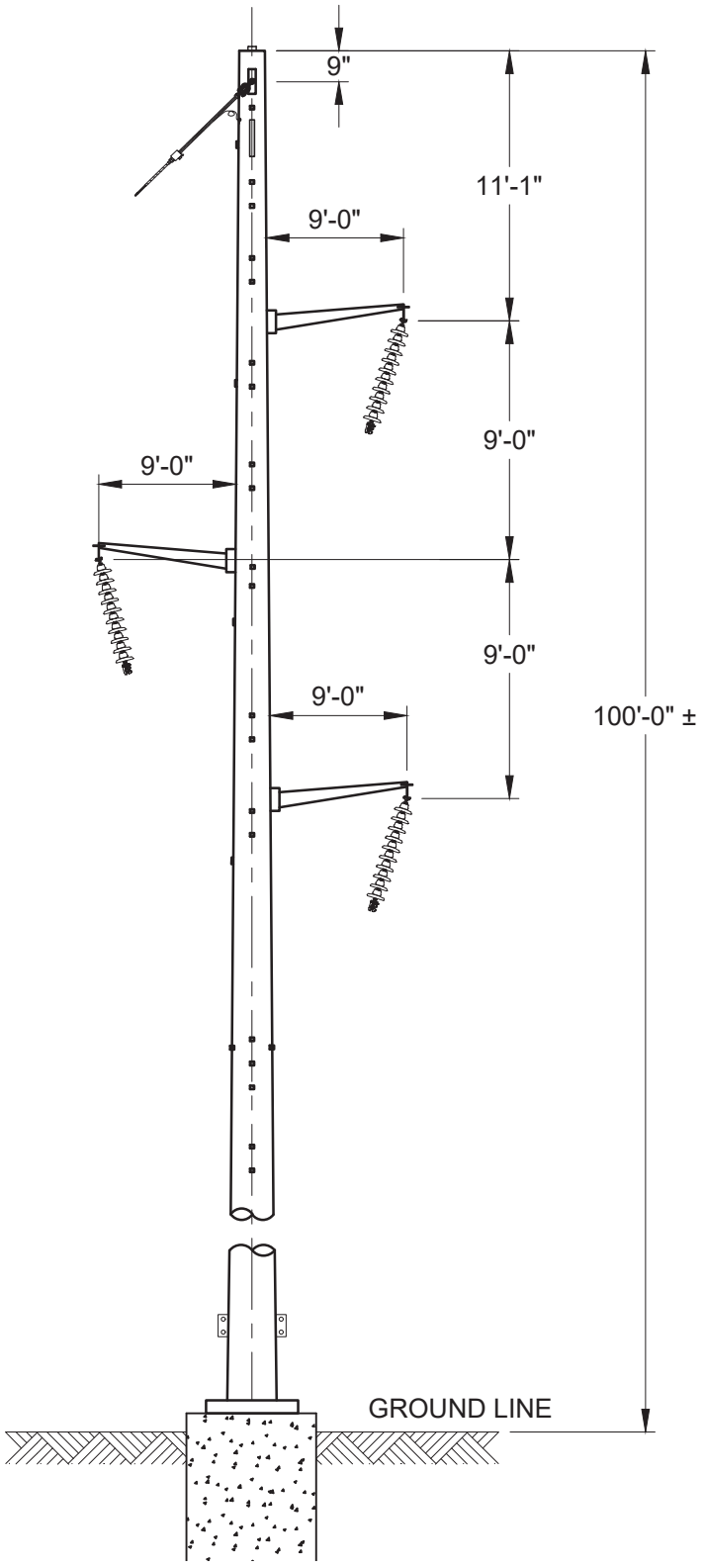
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT STEEL POLE LIGHT ANGLE SUSPENSION ON DRILLED PIER FOUNDATION

EXHIBIT 4

Exhibit 5



LINE	STRUCTURE(S)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	104
MEHOOPANY-NORTH MESHOPPEN No2 115kV	104

SCALE: NTS

MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

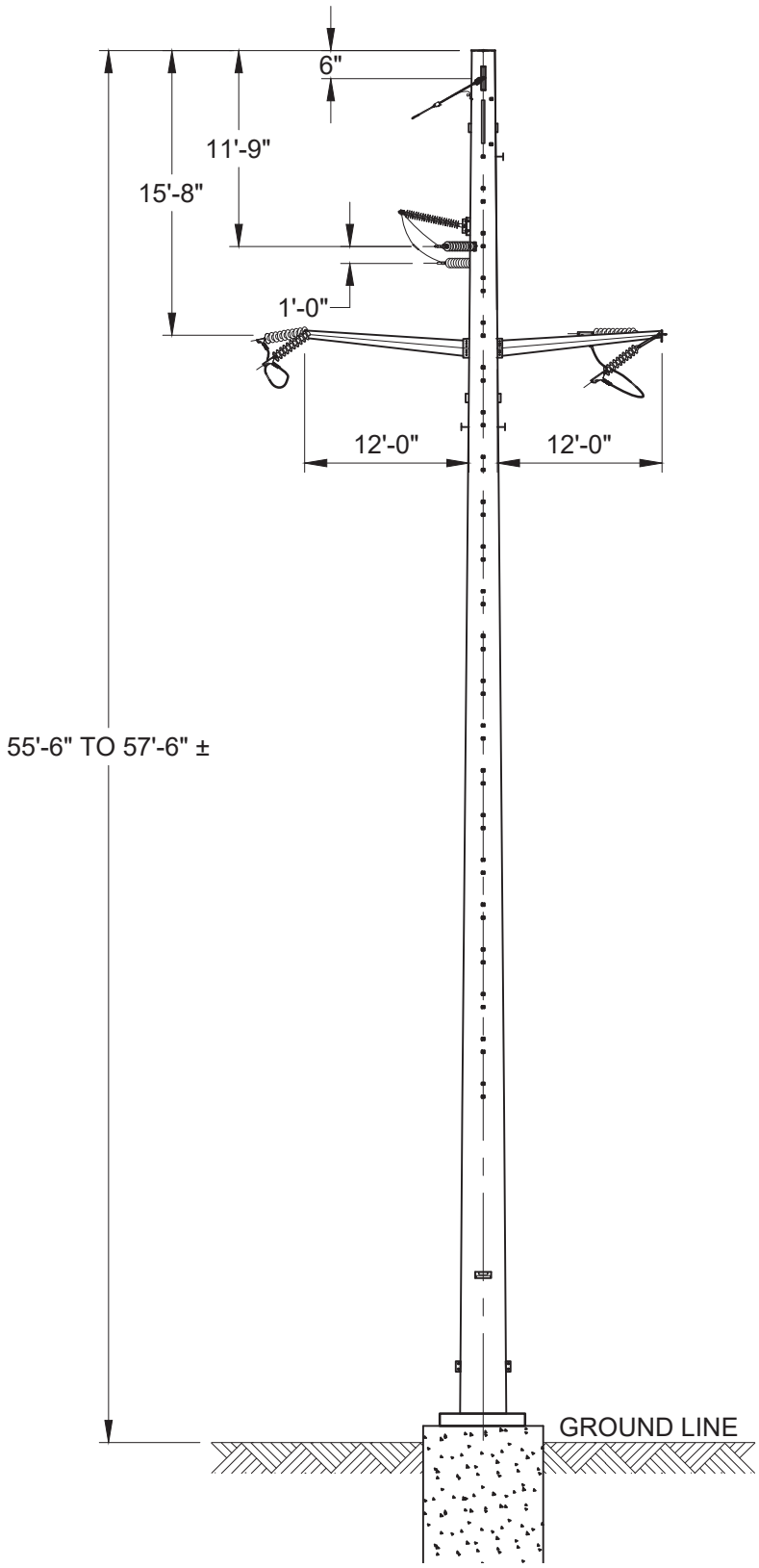
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT STEEL POLE DELTA SUSPENSION WITH SHIELD WIRE DEADEND ON DRILLED PIER FOUNDATION

EXHIBIT 5

PAPER SIZE: 8.5X11

Exhibit 6



LINE	STRUCTURE(S)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	105
MEHOOPANY-NORTH MESHOPPEN No2 115kV	105

SCALE: NTS

PAPER SIZE: 8.5X11

MAIT™
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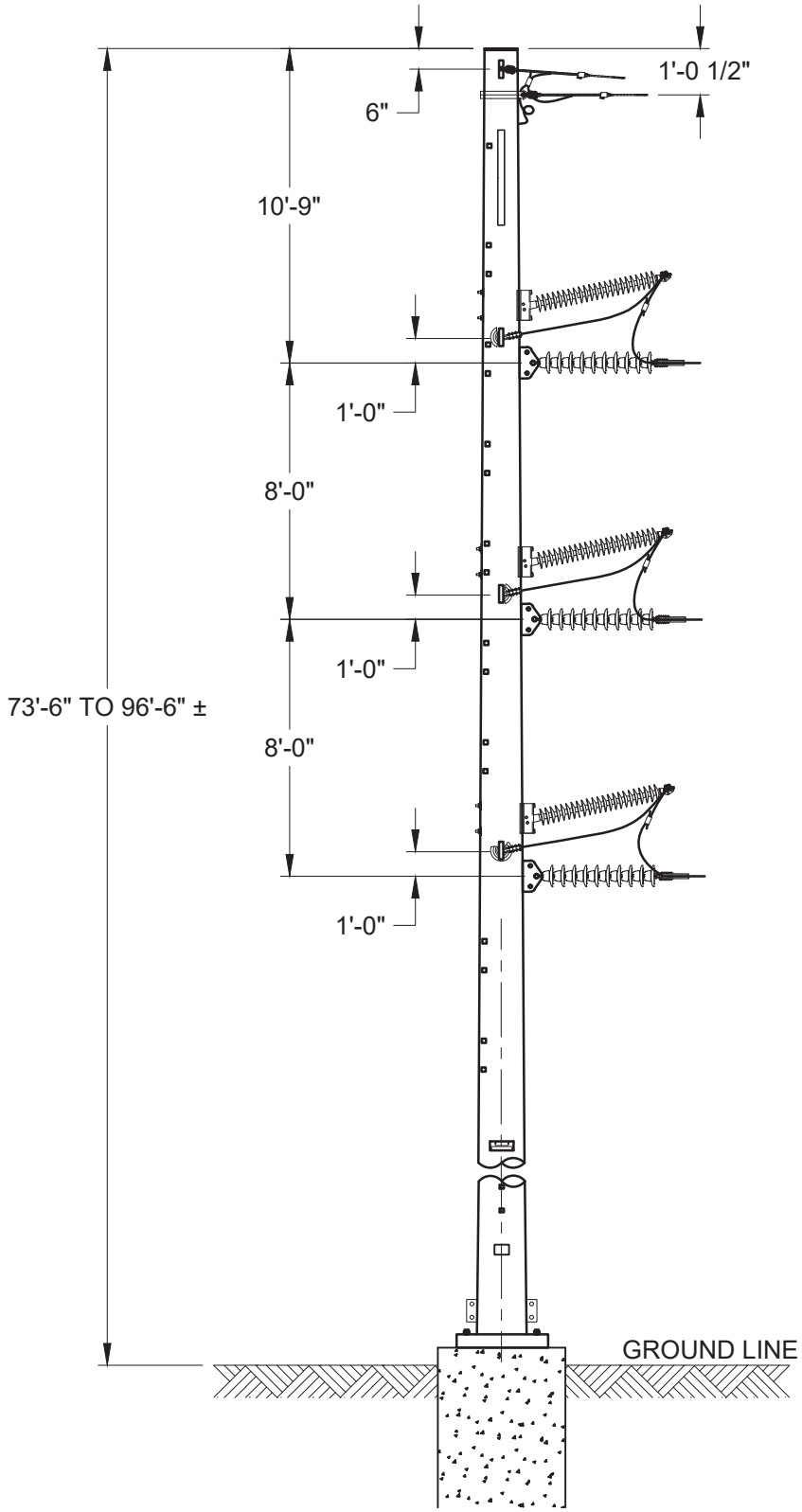
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115KV SINGLE CIRCUIT STEEL POLE HORIZONTAL DEADEND ON DRILLED PIER FOUNDATION

EXHIBIT 6

Exhibit 7



LINE	STRUCTURE(S)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	110, 126, 136, 149
MEHOOPANY-NORTH MESHOPPEN No2 115kV	110, 126, 136

SCALE: NTS

MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

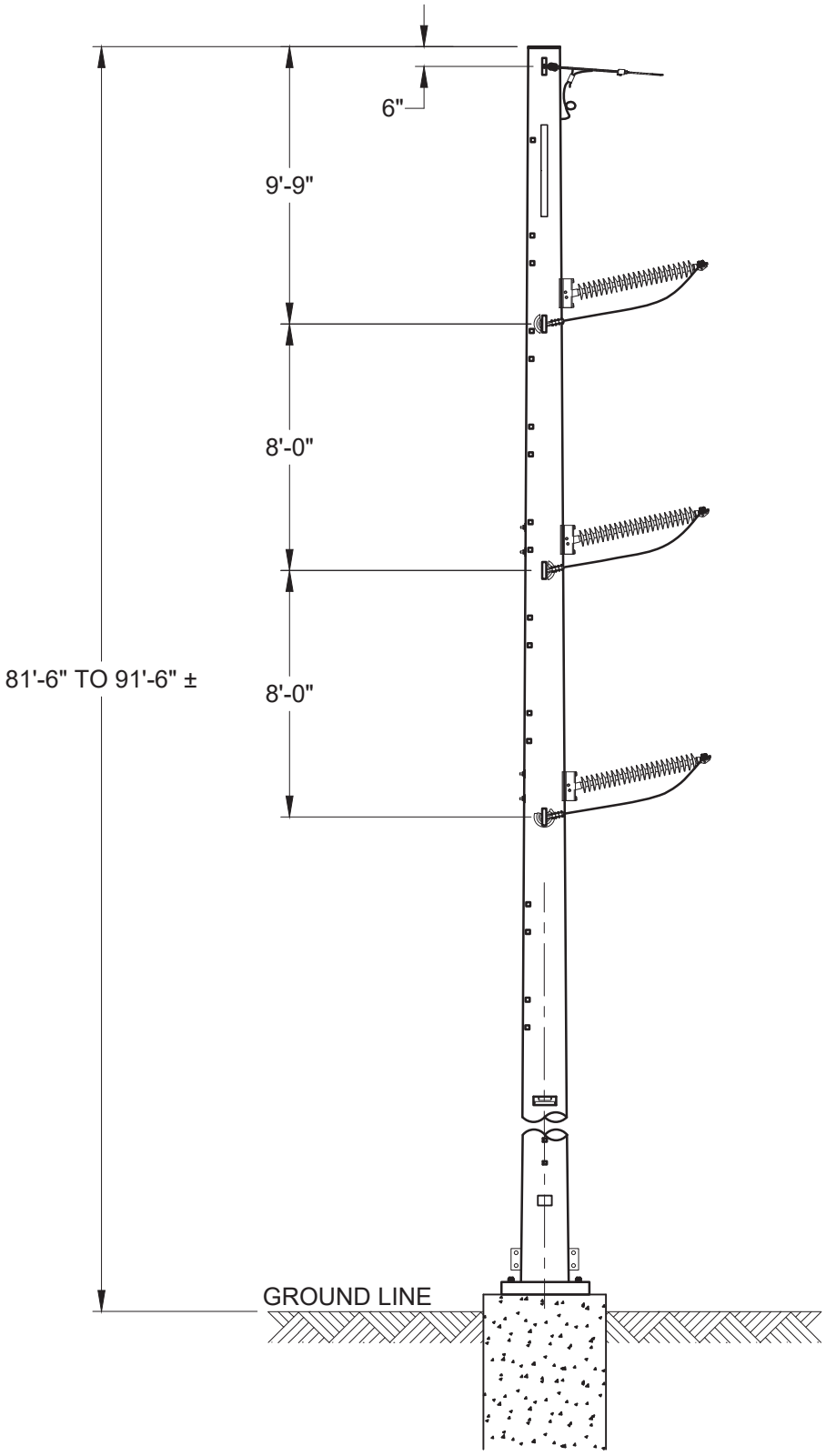
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT STEEL POLE VERTICAL DEADEND ANGLES 2° TO 60°, ON DRILLED PIER FOUNDATION

EXHIBIT 7

PAPER SIZE: 8.5X11

Exhibit 8



Line	Structure(s)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	117, 133, 141
MEHOOPANY-NORTH MESHOPPEN No2 115kV	117, 133, 141

SCALE: NTS

MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

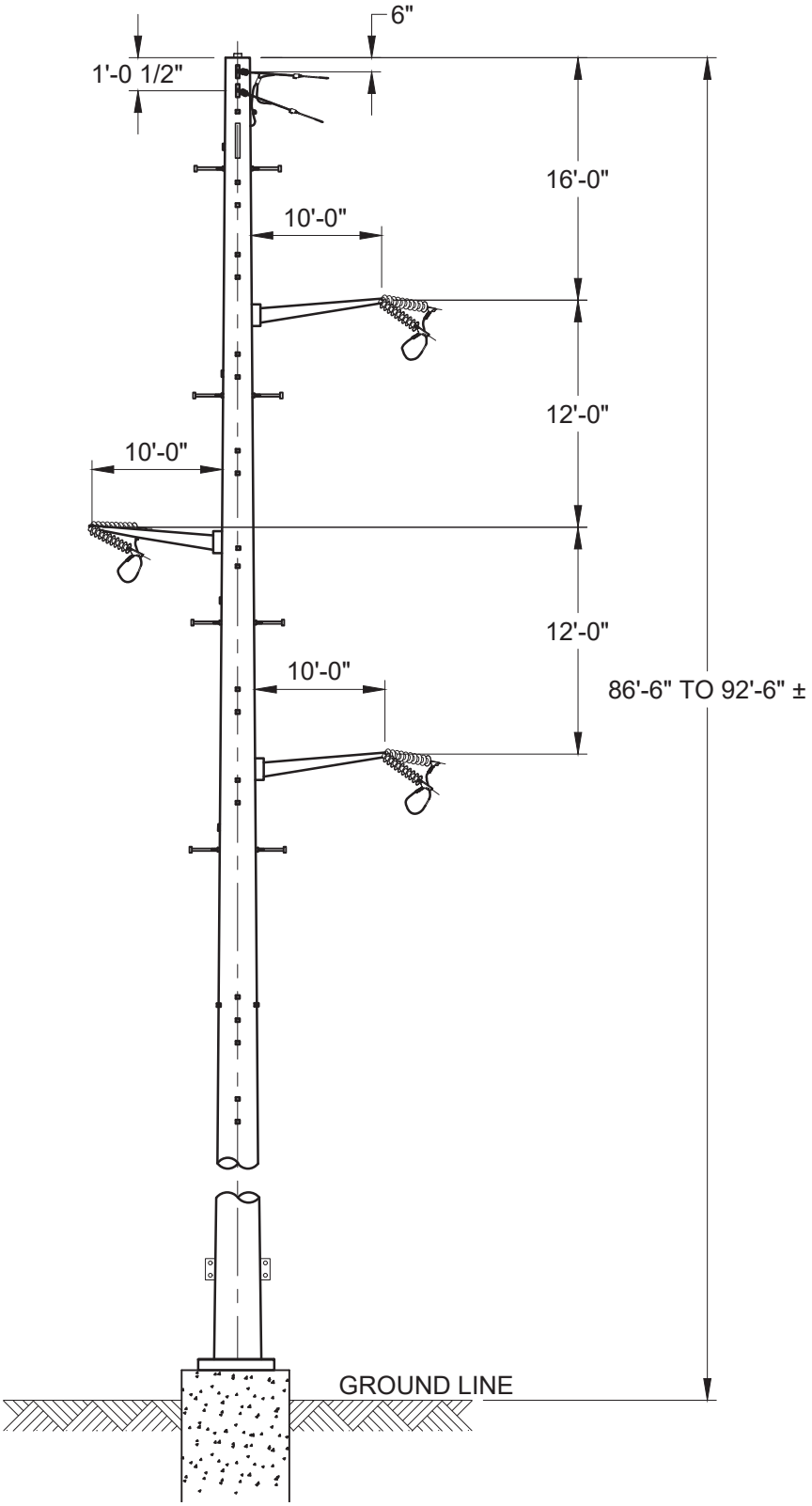
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT STEEL POLE VERTICAL TANGENT DEADEND ON DRILLED PIER FOUNDATION

EXHIBIT 8

PAPER SIZE: 8.5X11

Exhibit 9



Line	Structure(s)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	128, 129
MEHOOPANY-NORTH MESHOPPEN No2 115kV	128, 129

SCALE: NTS

MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

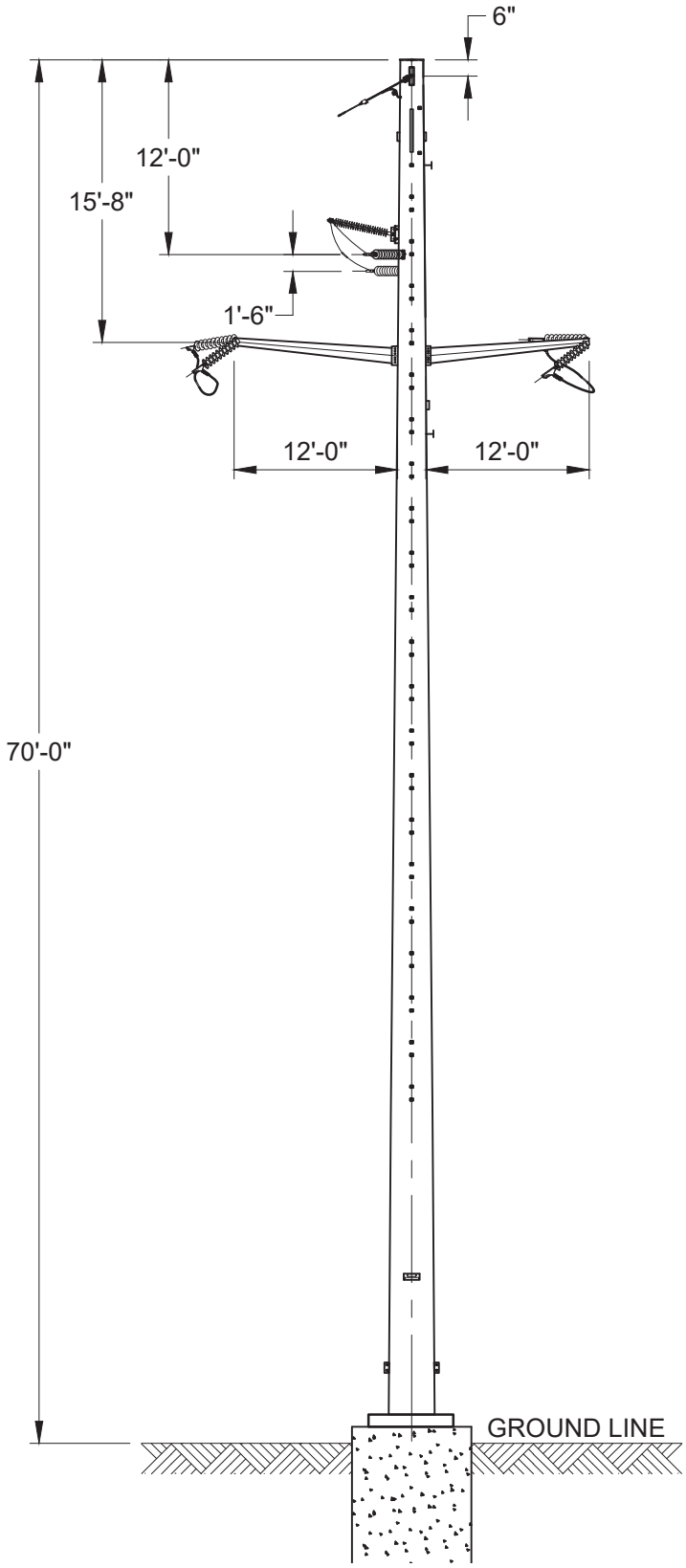
MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT STEEL POLE DELTA DEADEND ON DRILLED PIER FOUNDATION

EXHIBIT 9

PAPER SIZE: 8.5X11

Exhibit 10



MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT
TRANSMISSION LINES REBUILD PROJECT

115KV SINGLE CIRCUIT STEEL POLE
HORIZONTAL DEADEND ON DRILLED PIER FOUNDATION

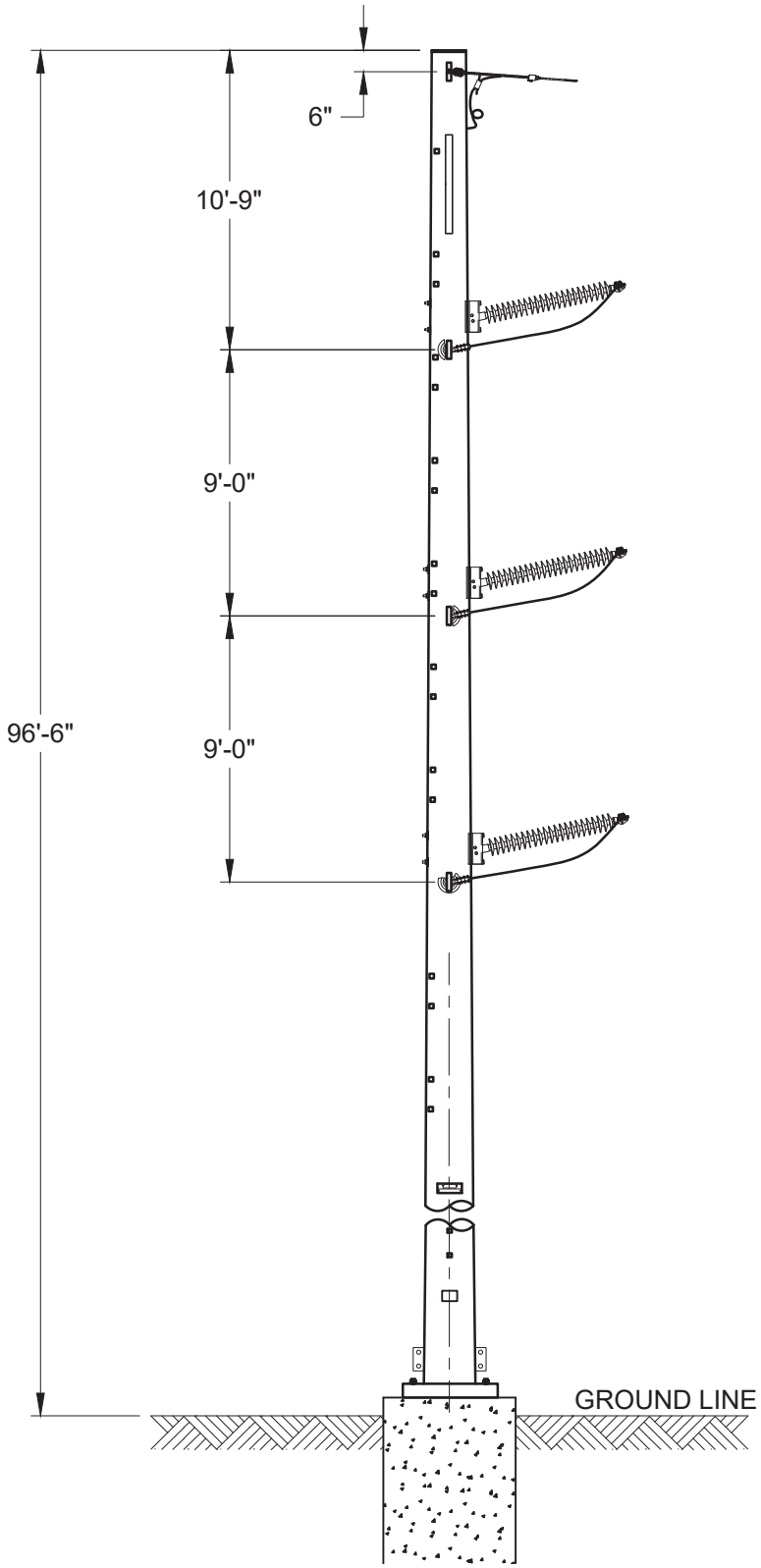
Line	Structure(s)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	151

SCALE: NTS

EXHIBIT 10

PAPER SIZE: 8.5X11

Exhibit 11



MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT
TRANSMISSION LINES REBUILD PROJECT

115kV SINGLE CIRCUIT STEEL POLE VERTICAL DEADEND
ON DRILLED PIER FOUNDATION

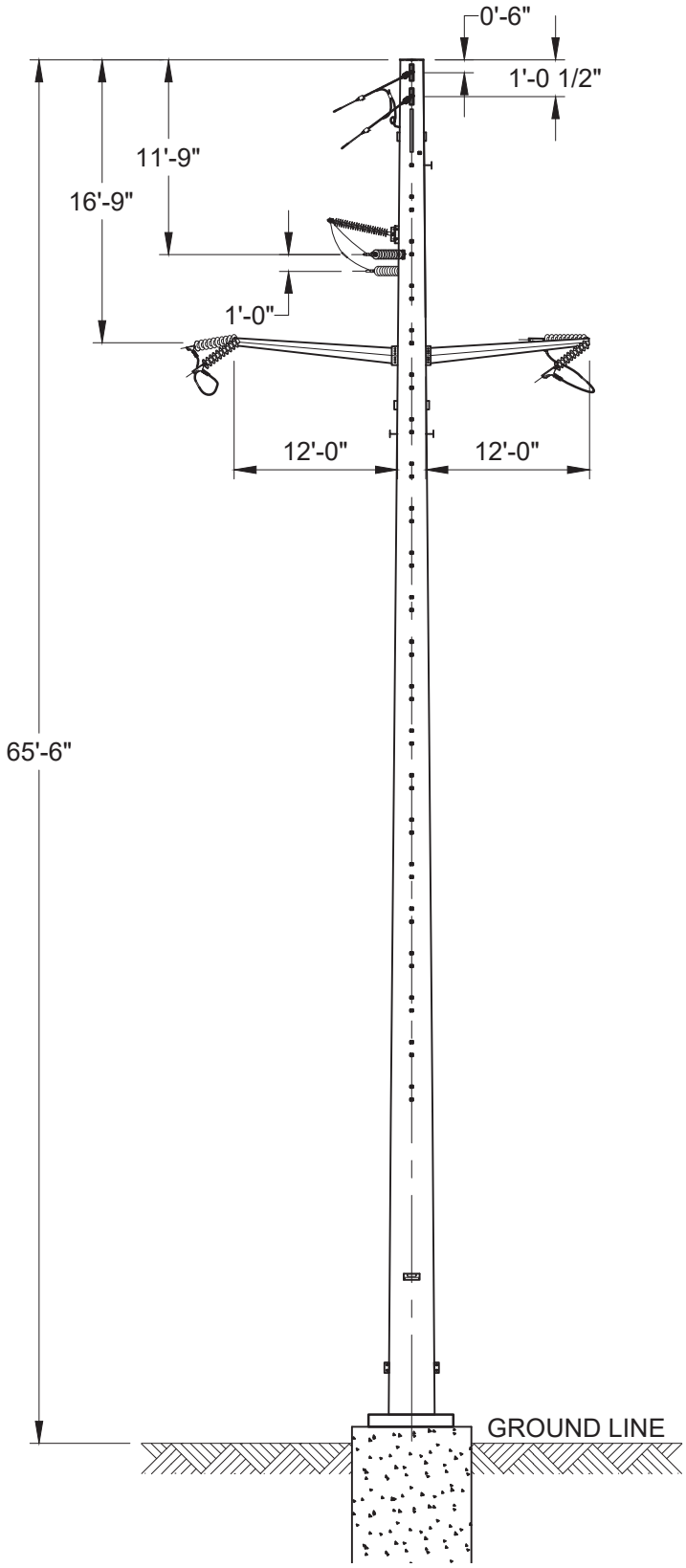
Line	Structure(s)
MEHOOPANY-NORTH MESHOPPEN No2 115kV	149

SCALE: NTS

EXHIBIT 11

PAPER SIZE: 8.5X11

Exhibit 12



MAIT
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT
TRANSMISSION LINES REBUILD PROJECT

115KV SINGLE CIRCUIT STEEL POLE
HORIZONTAL DEADEND
ON DRILLED PIER FOUNDATION

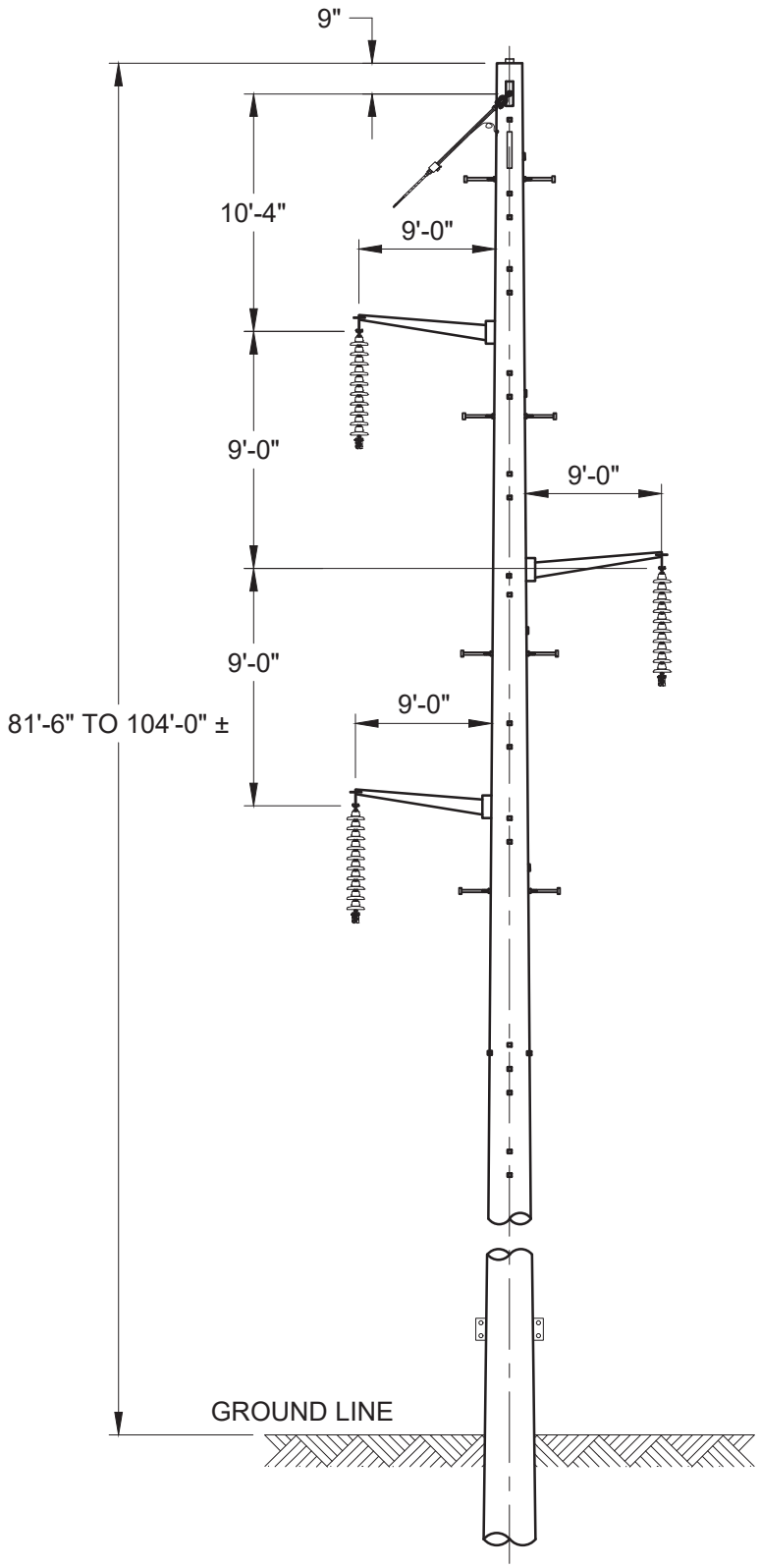
Line	Structure(s)
MEHOOPANY-NORTH MESHOPPEN No2 115kV	150

SCALE: NTS

EXHIBIT 12

PAPER SIZE: 8.5X11

Exhibit 13



MAIT
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

MEHOOPANY–NORTH MESHOPPEN 115 KILOVOLT
TRANSMISSION LINES REBUILD PROJECT

LINE	STRUCTURE(S)
MEHOOPANY-NORTH MESHOPPEN No1 115kV	107, 130-131, 144
MEHOOPANY-NORTH MESHOPPEN No2 115kV	107, 124, 130, 144

115kV SINGLE CIRCUIT LIGHT DUTY STEEL STRUCTURE
DELTA SUSPENSION WITH SHIELD WIRE DEADEND

SCALE: NTS

EXHIBIT 13

PAPER SIZE: 8.5X11

Exhibit 14

WATERS DELINEATION REPORT

NORTH MESHOPPEN – MEHOOPANY (NMM) #1 & 2
AUBURN TOWNSHIP, SUSQUEHANNA COUNTY &
MESHOPPEN AND WASHINGTON TOWNSHIPS, WYOMING COUNTY, PENNSYLVANIA

Prepared For:

FIRSTENERGY SERVICE COMPANY
800 CABIN HILL DRIVE,
GREENSBURG, PA 15601

Prepared By:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
700 CHERRINGTON PKWY.
MOON TOWNSHIP, PA 15104

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1.0 INTRODUCTION

Civil & Environmental Consultants, Inc. (CEC) conducted a waters delineation for FirstEnergy's North Meshoppen – Mehoopany (NMM) #1 & 2 project located in Auburn Township, Susquehanna County and Meshoppen and Washington Townships, Wyoming County, Pennsylvania (Figure 1). The proposed project includes the replacement of two lines and their structures running parallel within the same right of way. This report includes the findings of a desktop data review and field delineation of current site conditions. The purpose was to identify, characterize, and delineate wetlands, streams, and other waters located within the approximate 192-acre area of interest (AOI). Figure 3A displays features delineated by another consultant and the data for those features is not included in this report. This report presents the methodology and findings of CEC.

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into waters of the United States (WOTUS) under Section 404 of the federal Clean Water Act (CWA), and the placement of structures in or over navigable waters under Sections 9 and 10 of the Rivers and Harbors Act of 1899. Navigable waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past, or may be susceptible to use in interstate or foreign commerce, as defined in 33 Code of Federal Regulations (CFR) 329.4. Federally jurisdictional WOTUS are defined in 33 CFR Part 328 as traditional navigable waters, their relatively permanent tributaries, wetlands adjacent with a continuous surface connection to jurisdictional waters, and certain other waterbodies (lakes, ponds, impoundments, and captured streams) if not isolated or otherwise categorically excluded. Wetlands, streams, and other waters that meet the guidelines contained in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), referred to hereafter as Corps Manual, applicable Regional Supplement to the Corps Manual, and/or exhibit ordinary high water marks (OHWM) might be subject to regulation by USACE as WOTUS as defined by 33 CFR 328.3(a).

This report is intended to document potentially jurisdictional waters using regulatory guidelines. The status and extent of waters is subject to jurisdictional determination by the USACE and state

agencies. Under the current federal WOTUS rule, ephemeral streams may not be considered WOTUS since they may not be Relatively Permanent Waterbodies (RPWs). The relatively permanent standard is flowing or standing water year-round or continuously during certain times of year. "Certain times of the year" is intended to include extended periods of standing or continuously flowing water occurring in the same geographic feature year after year, except in times of drought. RPWs do not include tributaries with flowing or standing water for only a short duration in direct response to precipitation. No minimum flow duration for RPWs has been established because flow duration qualifying as "continuously during certain times of year" varies extensively by regional climate. The flow regimes ascribed to the delineated streams is a preliminary opinion based on channel conditions at the time of the field delineation and may require supplemental data for jurisdictional determination purposes. Similarly, isolated streams or wetlands that lack a continuous surface connection to RPWs may also not qualify as WOTUS, but downstream connectivity of the delineated waters may require further investigation to sufficiently determine jurisdictional status according to the adjacency test.

2.0 METHODOLOGY

2.1 ENVIRONMENTAL DATA REVIEW

Prior to the field delineation, the following data sources were consulted to aid in the identification of potential wetlands, streams, and other waters within the AOI:

- U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps;
- U.S. Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS) Soil Survey Geographic (SSURGO) Database;
- Federal Emergency Management Agency (FEMA) flood hazard data;
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI);
- USGS 3D Hydrography Program (3DHP);
- Aerial imagery from various sources; and
- Antecedent Precipitation Tool (APT).

These publicly available data sources aided in overall habitat characterizations and facilitated potential water resource identification within the AOI; topographic depressions, mapped hydric soils, mapped NWI and 3DHP features, and FEMA floodplains have higher potential to contain wetlands, streams, and other surface water features.

2.2 FIELD METHODS

CEC performed a waters delineation to identify and delineate wetlands, streams, and other waters within the AOI. The following sections outline the field methods used to delineate these waters.

2.2.1 Wetland Delineation

CEC ecologists identified, characterized, and delineated wetlands in accordance with the routine, on-site determination methodology described in the Corps Manual, supplemented by the following technical guidance documents:

- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE 2012); (referred to hereafter as Regional Supplement);
- *National Wetland Plant List* (USACE 2022); and
- *Field Indicators of Hydric Soils in the United States Version 9.0* (USDA-NRCS 2024).

CEC ecologists walked the AOI and collected data at representative locations within each plant community cover type and areas with potential water features characteristics (e.g. localized depressions, converging slopes, evident hydrology, etc.). Data collected at each sampling point were recorded on USACE Wetland Determination Data Sheets. The sampling plan was modified as necessary if additional plant community cover types or potential water features characteristics were encountered.

At each sampling point, the following parameters were assessed: vegetation, soils, and hydrology. First, visual estimates of percent absolute cover of plant species were recorded for each of the following strata, when present: tree, sapling/shrub, herb, and woody vine. A determination of whether the plant community was dominated by hydrophytic (wetland) plants was then made using the Rapid Test or Dominance Test indicators. Next, soils were sampled to determine if soils met hydric soil indicators. Lastly, wetland hydrology indicators (e.g., surface water, high water table, saturation, etc.) were recorded, if present.

The sampling point data were used to determine whether that point was located in a wetland or non-wetland (i.e. upland). If a wetland was identified, further sampling was performed to delineate the wetland/non-wetland boundary. Each wetland was also classified according to the NWI classification system developed by the Federal Geographic Data Committee (2013) and Cowardin et al. (1979).

- **Palustrine emergent wetland (PEM):** rooted herbaceous and grass like plants which stand erect above the water or ground surface characterize this wetland class (excluding mosses or lichens). Vegetation is present for most of the growing season in most years. Emergent wetlands include marshes, meadows, and fens.

- **Palustrine scrub-shrub wetland (PSS):** woody vegetation less than 20 feet tall dominate this wetland class. Plant species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. Scrub-shrub wetlands include shrub swamps and bogs.
- **Palustrine forested wetland (PFO):** woody vegetation 20 feet or taller dominate this wetland class. Forested wetlands generally include an overstory of trees, an understory of young trees and shrubs, and an herbaceous layer.
- **Palustrine unconsolidated bottom (PUB):** nontidal wetland lacking vegetation but is less than 8 hectare (20 acres) in size with a water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water. Includes all wetlands and deepwater habitats with at least 25 percent cover of particles smaller than stones (less than 6-7 centimeter), and a vegetative cover less than 30 percent.

If more than one Cowardin classification type was identified within a wetland, the boundary between the types was delineated. Wetland boundaries were recorded using a mapping-grade handheld Global Navigational Satellite System (GNSS) receiver capable of sub-meter accuracy.

Upland habitats were also recorded on USACE Wetland Determination Data Sheets. Upland sampling points were documented adjacent to wetland delineation boundaries, as well as at representative upland habitats throughout the AOI.

2.2.1.1 Stream and Other Waters Delineation

Concurrent with the wetland delineation, CEC ecologists walked the AOI to identify streams and other waters. These waters were evaluated for the presence of an OHWM in accordance with USACE Regulatory Guidance Letter (RGL) No. 05-05: Ordinary High Water Mark Identification (USACE 2005), USACE *Interim National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (USACE 2022), and definitions under 33 CFR 328. As described in these OHWM guidance materials and 33 CFR 328.3(c)(4), an OHWM is established by a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the

characteristics of the surrounding areas. Potential jurisdiction limits are delineated using OHWM indicators as weight of evidence including geomorphic (e.g. breaks in slope), transition of vegetation types, changes in sediment type, and other indicators demarcating the regular high flow surface water elevation (e.g. observed flow event, wrack, of leaf litter disturbed or washed away). The uppermost limit of an ephemeral stream was established where the stream loses its defined bed and bank or OHWM.

In addition, all watercourses, which include streams, are defined in Pennsylvania as "a channel or conveyance of surface water having defined bed and banks" (Pennsylvania Code 2022). The federal and state guidance were applied to determine the extents of streams.

For streams, physical and biological data were used to infer the stream's hydrologic flow regime, using a weight-of-evidence approach. CEC used field indicators such as flow, substrate composition, presence of defined bed and bank, origin of hydrologic sources, presence/absence of vegetation within the stream channel, and presence/absence benthic macroinvertebrates, fish, and other aquatic biota to classify onsite stream segments into one of three stream types:

- **Ephemeral**: surface water flows or pools only in direct response to precipitation (e.g., rain or snow fall);
- **Intermittent:** surface water flows continuously during certain times of the year and more than in direct response to precipitation (e.g., seasonally when the groundwater table is elevated or when snowpack melts); and
- **Perennial:** surface water flows continuously year-round during normal rainfall. Ground water provides the primary hydrology.

Stream boundaries were located using a mapping-grade GNSS receiver capable of sub-meter accuracy. The physical characteristics of the streams and field observations were summarized on field data forms.

3.0 RESULTS

3.1 ENVIRONMENTAL DATA REVIEW

The USGS 7.5-minute topographic quadrangle and 3DHP data identified nine features within the AOI (Figures 1 and 2). These features include three ponds as well as six streams later identified as Trib 29352 To Little Meshoppen Creek, Trib 29351 To Little Meshoppen Creek, Trib 29358 To Meshoppen Creek, Meshoppen Creek, Trib 29249 Of Susquehanna River, and Trib 29248 To Susquehanna River. The NWI data also identified six resources within the AOI (Figure 2). The NWI classifies these resources as two palustrine unconsolidated bottom permanently flooded excavated (PUBHx) features, two riverine lower perennial unconsolidated bottom permanently flooded (R2UBH) features, three riverine unknown perennial unconsolidated bottom permanently flooded R5UBH features, one palustrine forested broad-leave deciduous seasonally flooded/saturated (PFO1E) feature, and one riverine upper perennial unconsolidated bottom permanently flooded (R3UBH) feature. A total of five FEMA flood hazard areas were identified in the AOI. The SSURGO data identified four poorly drained soils with predominantly hydric ratings, one very poorly drained soil with an all hydric rating, and eleven somewhat poorly drained soils with predominantly non-hydric ratings within the AOI (Appendix A, Figure 2, and Table 1).

Table 1. SSURGO Soil Mapping Units within the Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Rating
ArC	Arnot very channery silt loam, 3 to 15 percent slopes, very rocky	Somewhat excessively drained	Non-Hydric
ASE	Arnot-Rock outcrop complex, steep	Somewhat excessively drained	Non-Hydric
BaB	Bath channery silt loam, 3 to 8 percent slopes	Well drained	Non-Hydric
BaC	Bath channery silt loam, 8 to 15 percent slopes	Well drained	Non-Hydric
BaD	Bath channery silt loam, 15 to 25 percent slopes	Well drained	Non-Hydric
BbD	Bath channery silt loam, 3 to 8 percent slopes, rubbly	Well drained	Non-Hydric

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Rating
BfC2	Bath flaggy loam, 12 to 20 percent slopes, moderately eroded	Well drained	Non-Hydric
BfD2	Bath flaggy loam, 20 to 30 percent slopes, moderately eroded	Well drained	Non-Hydric
BsF	Bath very stony loam, 30 to 60 percent slopes	Well drained	Non-Hydric
FA	Fluvents and Fluvaquents	Well drained	Predominantly Non-Hydric
Hm	Holly silt loam	Poorly drained	Predominantly Hydric
Ho	Holly silt loam, ponded	Very poorly drained	All Hydric
LaC2	Lackawanna channery silt loam, 12 to 20 percent slopes, eroded	Well drained	Non-Hydric
LbB	Lackawanna channery loam, 3 to 8 percent slopes, rubbly	Well drained	Non-Hydric
LbD	Lackawanna channery loam, 8 to 25 percent slopes, rubbly	Well drained	Non-Hydric
LCE	Lackawanna and Bath soils, steep, rubbly	Well drained	Non-Hydric
LeB	Lordstown channery silt loam, 3 to 8 percent slopes	Well drained	Non-Hydric
LeC	Lordstown channery silt loam, 8 to 15 percent slopes	Well drained	Non-Hydric
LeD	Lordstown channery silt loam, 15 to 25 percent slopes	Well drained	Non-Hydric
LfC	Lordstown flaggy silt loam, 8 to 15 percent slopes	Well drained	Non-Hydric
LoC	Lordstown, Oquaga, and Bath soils, 3 to 12 percent slopes	Well drained	Non-Hydric
LsF	Lordstown, Oquaga, and Cadosia soils, 25 to 60 percent slopes, extremely bouldery	Well drained	Non-Hydric
LxB	Lordstown channery silt loam, 3 to 8 percent slopes, rubbly	Well drained	Non-Hydric
LxD	Lordstown channery silt loam, 8 to 25 percent slopes, rubbly	Well drained	Non-Hydric
McB	Mardin channery silt loam, 3 to 8 percent slopes	Moderately well drained	Non-Hydric

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Rating
McC	Mardin channery silt loam, 8 to 15 percent slopes	Moderately well drained	Non-Hydric
McC2	Mardin channery silt loam, 8 to 15 percent slopes, eroded	Moderately well drained	Non-Hydric
McD	Mardin channery silt loam, 15 to 25 percent slopes	Moderately well drained	Non-Hydric
MfC	Mardin flaggy silt loam, 8 to 15 percent slopes	Moderately well drained	Non-Hydric
MfD2	Mardin flaggy silt loam, 15 to 25 percent slopes, eroded	Moderately well drained	Non-Hydric
MhB	Mardin channery silt loam, 3 to 8 percent slopes, rubbly	Moderately well drained	Non-Hydric
MhD	Mardin channery silt loam, 8 to 25 percent slopes, rubbly	Moderately well drained	Non-Hydric
MoC2	Morris channery silt loam, 8 to 15 percent slopes, eroded	Somewhat poorly drained	Predominantly Non-Hydric
MsD	Morris channery silt loam, 8 to 25 percent slopes, extremely stony	Somewhat poorly drained	Predominantly Non-Hydric
MxB	Morris channery loam, 0 to 8 percent slopes, rubbly	Somewhat poorly drained	Predominantly Non-Hydric
NcA	Norwich and Chippewa channery silt loams, 0 to 3 percent slopes	Poorly drained	Predominantly Hydric
NcB	Norwich and Chippewa channery silt loams, 3 to 8 percent slopes	Poorly drained	Predominantly Hydric
NxB	Norwich and Chippewa channery silt loams, 0 to 8 percent slopes, rubbly	Poorly drained	Predominantly Hydric
OcD	Oquaga channery loam, 15 to 25 percent slopes	Well drained	Non-Hydric
OYE	Oquaga and Lordstown extremely stony loams, steep	Well drained	Non-Hydric
Ph	Philo silt loam	Moderately well drained	Predominantly Non-Hydric
Qu	Quarries	-	-
UnB	Unadilla silt loam, 3 to 8 percent slopes	Well drained	Non-Hydric
UnC	Unadilla silt loam, 8 to 15 percent slopes	Well drained	Non-Hydric

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Rating
Ur	Urban land	-	-
VcA	Volusia channery silt loam, 0 to 3 percent slopes	Somewhat poorly drained	Predominantly Non-Hydric
VcB	Volusia channery silt loam, 3 to 8 percent slopes	Somewhat poorly drained	Predominantly Non-Hydric
VcC	Volusia channery silt loam, 8 to 18 percent slopes	Somewhat poorly drained	Predominantly Non-Hydric
VcC2	Volusia channery silt loam, 8 to 15 percent slopes, eroded	Somewhat poorly drained	Predominantly Non-Hydric
VfB	Volusia flaggy silt loam, 3 to 8 percent slopes	Somewhat poorly drained	Predominantly Non-Hydric
VfC	Volusia flaggy silt loam, 8 to 15 percent slopes	Somewhat poorly drained	Predominantly Non-Hydric
VxB	Volusia channery silt loam, 0 to 8 percent slopes, rubbly	Somewhat poorly drained	Predominantly Non-Hydric
VxD	Volusia channery silt loam, 8 to 25 percent slopes, rubbly	Somewhat poorly drained	Predominantly Non-Hydric
W	Water	-	-
WeB2	Wellsboro channery silt loam, 3 to 8 percent slopes, eroded	Moderately well drained	Non-Hydric
WeC2	Wellsboro channery silt loam, 8 to 15 percent slopes, eroded	Moderately well drained	Non-Hydric
WgB	Wellsboro channery loam, 3 to 8 percent slopes, rubbly	Moderately well drained	Non-Hydric
WyD	Wyoming gravelly sandy loam, 15 to 25 percent slopes	Somewhat excessively drained	Non-Hydric
WyE	Wyoming gravelly sandy loam, 25 to 45 percent slopes	Somewhat excessively drained	Non-Hydric

3.2 FIELD RESULTS

CEC staff conducted a field delineation on October 22 – 30 and November 26, 2024, and April 15, and May 15 and 19, 2025 to identify, delineate, and classify wetlands, streams, and other waters within the AOI. The AOI consisted of existing electrical facilities, powerline ROWs, agricultural fields, residential areas, quarries, existing roads, and open water features (ponds). In total, forty-

six (46) wetlands and twenty-two (22) streams were identified (Figure 3). A photographic summary is included in Appendix B. Wetland Determination Data Sheets and stream data forms are provided in Appendices C and D, respectively.

CEC ran the Antecedent Precipitation Tool (APT) to assess the climatic conditions at the time of the field delineation. The APT compares antecedent or recent rainfall conditions for this location versus the range of normal rainfall conditions that occurred during the preceding 30 years. The APT tool evaluates normal precipitation conditions, assesses the presence of drought conditions, and the approximate dates of wet and dry seasons for a given location. The APT analysis indicated drier than normal were present at the time of the field delineation. Additionally, the Palmer Drought Severity Index (PDSI) indicated mild wetness was occuring at the time of the field delineation. The results of the APT analysis are included in Appendix E.

3.2.1 Wetland Delineation

Forty-six (46) wetlands were identified within the AOI. Forty-three (43) delineated wetlands were classified as PEM, two (2) wetlands were classified as combinations of PEM and PSS, and one (1) wetland was classified as combinations of PEM and PUB. Refer to Table 2 for a summary of the wetlands identified within the AOI.

In addition to thirty-two (6) sampling points taken within the wetlands, twenty-nine (29) sampling points were taken to document upland habitats within the AOI.

Table 2 Wetlands Delineated

Wetland ID	Acreage by Cowardin Classification[1]			Total Acreage[1]	Sampling Point(s)
	PEM	PSS	PUB		
W001A	0.017	-	-	0.017	TS-1
W001B	0.002	-	-	0.002	
W001C	0.021	-	-	0.021	
W001T	2.485	0.084	-	2.569	TS-1T, TS-2T
W002A	0.098	-	-	0.098	TS-3

Wetland ID	Acreage by Cowardin Classification[1]			Total Acreage[1]	Sampling Point(s)
	PEM	PSS	PUB		
W002B	0.559	-	-	0.559	TS-2M
W003B	0.558	-	-	0.558	TS-4
W004A	0.003	-	-	0.003	TS-6
W004B	0.013	-	-	0.013	
W004C	0.002	-	-	0.002	
W006A	1.434	-	-	1.434	TS-4M, TS-10
W006B	1.022	0.263	-	1.285	TS-6T, TS-8T
W007	0.007	-	-	0.007	TS-12
W008	0.841	-	-	0.841	TS-14
W009	1.900	-	-	1.900	TS-16
W010A	0.225	-	-	0.225	TS-17
W010B	0.018	-	-	0.018	
W010C	0.012	-	-	0.012	
W010D	0.022	-	-	0.022	
W011A	0.038	-	-	0.038	TS-19
W011B	0.015	-	-	0.015	
W012	0.027	-	-	0.027	TS-21
W013A	0.030	-	-	0.030	TS-23
W013B	0.010	-	-	0.010	
W014A	0.188	-	-	0.188	TS-24
W014B	0.101	-	-	0.101	
W015	0.023	-	-	0.023	TS-25
W016A	0.018	-	-	0.018	TS-27
W016B	0.266	-	-	0.266	TS-5T
W017	0.118	-	-	0.118	TS-30
W018A	0.079	-	-	0.079	TS-32
W018B	0.037	-	-	0.037	
W018C	0.023	-	-	0.023	
W018D	0.046	-	-	0.046	

Wetland ID	Acreage by Cowardin Classification[1]			Total Acreage[1]	Sampling Point(s)
	PEM	PSS	PUB		
W018E	0.037	-	-	0.037	TS-32
W019A	0.281	-	-	0.281	TS-34
W019B	0.003	-	-	0.003	
W020A	5.420	-	-	5.420	TS-36
W020B	0.016	-	-	0.016	
W020C	0.013	-	-	0.013	
W021	0.854	-	-	0.854	TS-38
W022A	1.168	-	0.548	1.716	TS-40, TS-41
W022B	-	-	0.399	0.399	
W023	0.333	-	-	0.333	TS-43
W024	0.355	-	-	0.355	TS-45
W025	0.008	-	-	0.008	TS-48
Total	**18.745**	**0.347**	**0.947**	**20.039**	

3.2.2 Stream and Other Waters Delineation

One (1) ephemeral stream, thirteen (13) intermittent, and eight (8) perennial streams were identified within the AOI. Refer to Table 3 for a summary of the streams identified within the AOI.

Table 3 Streams Delineated

Stream ID	Length (LF) by Stream Classification[1, 2, 3]			Total Length (LF)[2]
	EPH	INT	PER	
S001	-	-	50	50
S002	-	-	351	351
S004	-	-	162	162
S005	-	-	55	55
S006	209	-	-	209
S007	-	233	-	233
S008	-	74	-	74
S009	-	-	205	205
S010	-	29	-	29
S011	-	-	223	223
S012	-	252	-	252
S013	-	-	184	184
S014	-	-	1422	1422
S015	-	51	-	51
S016	-	94	-	94
S017	-	193	-	193
Stream 1C	-	201	-	201
Stream 2C	-	531	-	531
Stream 3C	-	117	-	117
Stream 4C	-	93	-	93
Stream 1M	-	13	-	13
S001T	-	26	-	26
Total	**209**	**1,907**	**2,652**	**4,768**

Nine (9) ditches, two (2) erosional features, and four (4) swales were also observed during the field delineation. These features did not have defined bed and banks, OHWMs, or other salient characteristics of streams and did not appear to have groundwater input. These features appear to only convey diffuse sheet flow in direct response to precipitation events. Therefore, in CEC's

professional opinion, these features would not be subject to USACE jurisdiction. Refer to Table 4 for a summary of the other features identified and delineated within the AOI.

Table 4 Other Features Delineated

Other Feature ID	Type
Ditch 1	Ditch
Ditch 2	Ditch
Ditch 3	Ditch
Ditch 4	Ditch
Ditch 5	Ditch
Ditch 6	Ditch
Ditch 7	Ditch
Erosional Feature 1	Erosional Feature
Erosional Feature 2	Erosional Feature
Swale 1	Swale
Swale 2	Swale
Swale 3	Swale
Ditch 1GG	Ditch
Roadside ditch 1C	Ditch
Swale 1C	Swale

4.0 CONCLUSIONS

CEC conducted a waters delineation within the AOI on October 22 – 30 and November 26, 2024, and April 15, May 15, and 19, 2025. CEC identified the following within the AOI:

- Fourty-six (46) wetlands, totaling approximately 20.039 acres;
- Twenty-two (22) streams, totaling approximately 4,768 LF; and

Ditches, erosional features, and swales were observed that did not exhibit defined bed and banks, OHWMs, or other salient characteristics of jurisdictional waters. These features appear to be non-jurisdictional features that meet the federal WOTUS exclusions listed under 33 CFR Part 328 (b) as either ditches excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water; and/or swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

5.0 REGULATORY CONSIDERATIONS

The USACE has authority to permit the discharge of dredged or fill material into WOTUS under Section 404 of the federal Clean Water Act, and to permit work and the placement of structures in navigable waters under Sections 9 and 10 of the Rivers and Harbors Act of 1899. Wetlands, streams, and other waters that meet the guidelines contained in the Corps Manual, Regional Supplement, and Regulatory Guidance Letter No. 05-05 are subject to regulation by USACE as WOTUS as defined by 33 CFR 328.3(a), and the currently in effect regulatory definition (SCOTUS 2023).

As a result of ongoing litigation with the January 2023 Revised Definition of 'Waters of the United States' Rule (2023 WOTUS Rule), federal agencies will implement the 2023 WOTUS Rule, as amended by the conforming rule, in 23 states (including Pennsylvania), the District of Columbia, and the U.S. Territories. In the other 27 states and for certain parties, the agencies are interpreting "WOTUS" consistent with the pre-2015 regulatory regime and the Supreme Court's decision in *Sackett v. Environmental Protection Agency* (May 24, 2023) until further notice.

If CWA Section 404 authorization and/or other federal permits are required for the proposed project, consultation with the USFWS will likely be required pursuant to Section 7 of the Endangered Species Act. Furthermore, consultation with the State Historic Preservation Office may also be required relative to potential effects to resources listed on or eligible for listing on the National Register of Historic Places.

The PADEP has coinciding jurisdiction over "waters of the Commonwealth" as established by the Dam Safety and Encroachments Act (P.L. 1375, No. 325) and the Clean Streams Law (P.L. 1987, No. 3941). The PA Code of State Regulations, in Title 25, Chapter 105 Dam Safety and Waterway Management, defines "waters of the Commonwealth" as any watercourse, stream, waterbody, or wetland, including their floodways. Like the USACE, the PADEP generally considers channels to be potentially jurisdictional if they exhibit defined bed and banks, whether natural or artificial, with perennial or intermittent flow. The PADEP regulates encroachments, defined as "*any structure or activity which changes, expands or diminishes the course, current or cross section of*

a watercourse, floodway, or body of water" through the Chapter 105 permit process. The floodway is defined as extending 50 feet from the top of bank of watercourses if not delineated by a Federal Emergency Management Agency (FEMA) study.

Waters within the AOI were delineated using guidelines set forth by the Pennsylvania DEP and USACE, which have final regulatory authority on the jurisdiction and extents of wetlands, streams, and other waters.

It is the responsibility of any party that intends to discharge dredge or fill material into WOTUS and/or isolated waters to comply with all applicable regulations.

6.0 LEVEL OF CARE

This waters delineation has been prepared based on the information referenced within this report, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with USACE and other applicable agency guidelines, and with the level of care and skill ordinarily exercised by members of the environmental consulting profession practicing contemporaneously under similar conditions in the locality of the site. The waters boundaries described in this report may change subsequent to CEC's delineation based on changes in the regulatory criteria, seasonal variations in hydrology, alterations to drainage patterns, and other human activities and/or land disturbances.

Report Prepared By:

Cartier Chmielewski 11/14/2025

Cartier Chmielewski Date
Assistant Project Manager
Civil & Environmental Consultants, Inc.

Report Reviewed By:

McKenzie R. McKeon 11/14/2025

McKenzie R. McKeon Date
Project Manager
Civil & Environmental Consultants, Inc.

7.0 REFERENCES

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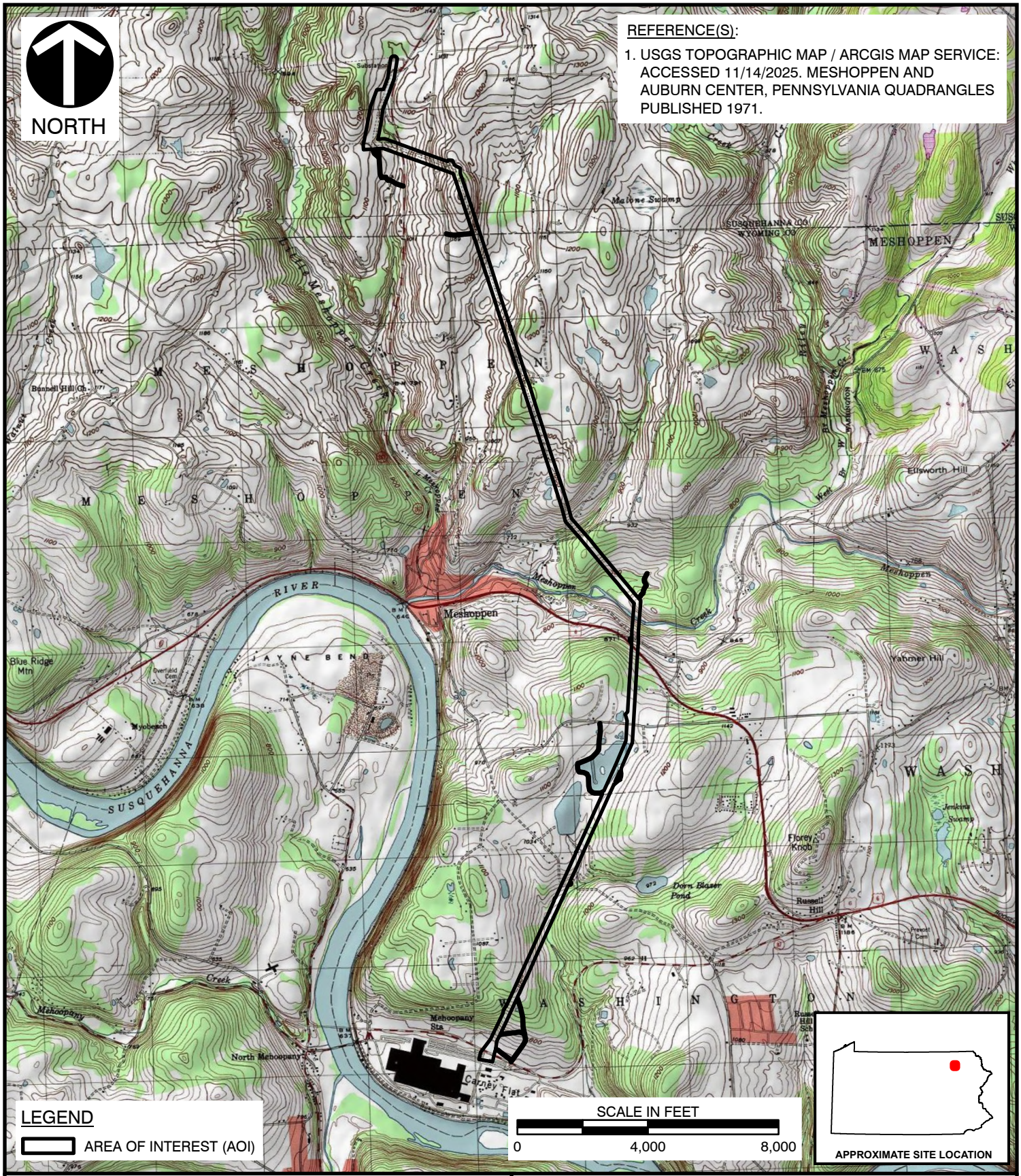
FIGURES



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700 Cherrington Parkway
Moon Township, PA 15108

Ph: 412.429.2324 · 800.365.2324

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SUSQUEHANNA COUNTY AND
WYOMING COUNTY, PENNSYLVANIA

SITE LOCATION MAP

DRAWN BY:	ZAF	CHECKED BY:	CMCH	APPROVED BY:	MRM*	FIGURE NO:	1
DATE:	11/14/2025	SCALE:	1"=4,000'	PROJECT NO:	343-695		

*Hand Signature on file

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NORTH

REFERENCES
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5. USDA, NRCS SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, ACCESSED 11/14/2025

WIB2 MrC2 McB2 WIC2 MrB2 MrB2 MoB2 LsF MoC2 LgF MoC2 LsB BsD LsD WeC2 McD2 MsD WIC2 LaC2 VcA BfC2 MoC2 McC2 W MfD2 WeB2 BsF WeC2 VcC2 LsD LsB BsF McC2 LaD2 MoC2

R5UBH PUBHx R3UBH A A

267 267 267 267 267

State Route 267 State Route 3007 State Route 267 State Route 3007

SCALE IN FEET
0 300 600

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 1% ANNUAL CHANCE FLOOD HAZARD
- NWI FRESHWATER POND
- NWI RIVERINE
- 3DHP LAKE
- 3DHP RIVER
- 3DHP WATERBODY CONNECTOR

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700 Cherrington Parkway
Moon Township, PA 15108
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ENVIRONMENTAL DATA REVIEW MAP

DRAWN BY:	ZAF	CHECKED BY:	CMCh	APPROVED BY:	MRM*	FIGURE NO:	2A
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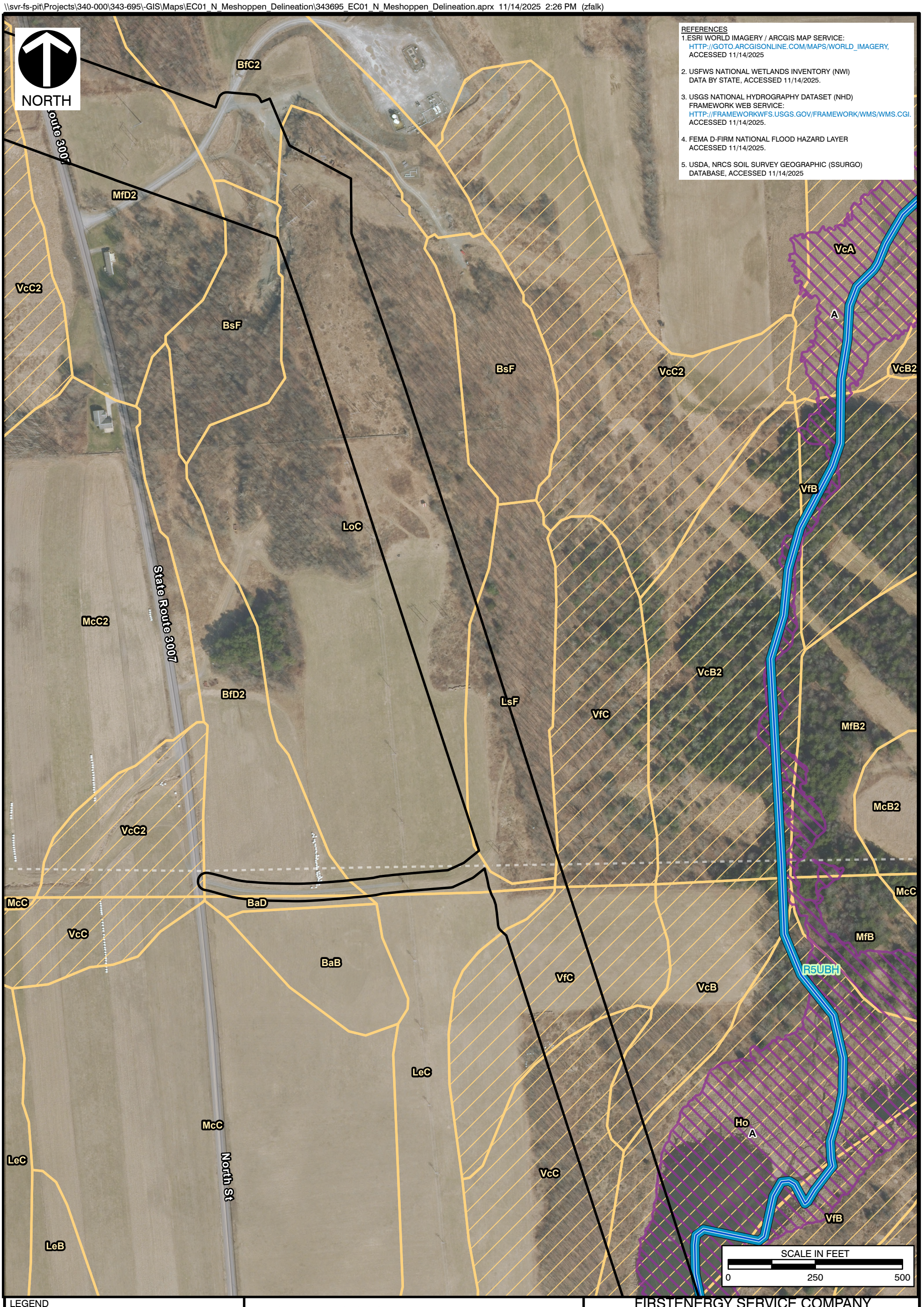

LEGEND

- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 1% ANNUAL CHANCE FLOOD HAZARD
- NWI RIVERINE
- 3DHP RIVER

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700 Cherrington Parkway
Moon Township, PA 15108

Ph: 412.429.2324 · 800.365.2324

www.cecinc.com

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DATE:	11/14/2025	SCALE:	1"=250'	PROJECT NO:	343-695		

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5. USDA, NRCS SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, ACCESSED 11/14/2025

Ho, VcC, LeC, PUBHx, McB, LeC, LeD, MhB, VfB, MhD, VcC, McB, VcB, MfC, VfC, LxD, AsD, LeB, ArC, LfC, McB, R5UBH, A, LeC, McD, Hm, LeC, VcB, VcC, McB, NcB, MrB, PEM5C, PSS1C

Frantz Rd, Stoney Springs Ln, Frantz Rd

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 1% ANNUAL CHANCE FLOOD HAZARD
- NWI FRESHWATER EMERGENT WETLAND
- NWI FRESHWATER FORESTED/SHRUB WETLAND
- NWI FRESHWATER POND
- NWI RIVERINE
- 3DHP LAKE
- 3DHP RIVER

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Moon Township, PA 15108
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ENVIRONMENTAL DATA REVIEW MAP

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VcC NcB PUBFh Qu PSS1C McC Frantz Rd ArC VcA AsD LeC LxD McC McB VcA VcB ArC Frantz Rd Frantz Rd LxD LxB McB LfB LeC McC LfC PUBHh W LCE

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- NWI FRESHWATER FORESTED/SHRUB WETLAND
- NWI FRESHWATER POND
- 3DHP LAKE

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ENVIRONMENTAL DATA REVIEW MAP

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McB
Frantz Rd
VcB
McB
McC
ArC
LxB
LfC
W
PUBHh
W
VcB
WcC
LCE
McB
LbD
LeD
LeB
ASE
Vaow Rd
VfC
A
BaD
BaC
BbB
LCE
R5UBH
BaD
Vaow Rd
Cabin Ln
Cabin Ln
VcB
McB
WyC
WyD
BcB
WyB
Briar Rid
A
WyD
LbD
LbB

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 1% ANNUAL CHANCE FLOOD HAZARD
- NWI FRESHWATER POND
- NWI RIVERINE
- 3DHP LAKE
- 3DHP RIVER

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ENVIRONMENTAL DATA REVIEW MAP

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BaD LbD McC WyC WyD BbB BbD UnB WyE X AE Ph FA R5UBH Pp SwD W R3UBH Meshoppen Creek ASE LCE VcC McD LeD OYE LxD VfC VxD NxB Pots Falls Rd Roosevelt Hwy 6

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 0.2% ANNUAL CHANCE FLOOD HAZARD
- 1% ANNUAL CHANCE FLOOD HAZARD
- REGULATORY FLOODWAY
- NWI RIVERINE
- 3DHP RIVER
- 3DHP LAKE
- 3DHP WATERBODY CONNECTOR

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ENVIRONMENTAL DATA REVIEW MAP

DRAWN BY:	ZAF	CHECKED BY:	CMCh	APPROVED BY:	MRM*	FIGURE NO:	2F
DATE:	11/14/2025	SCALE:	1"=250'	PROJECT NO:	343-695		

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OYE
LxD
LxB
LeD
ArC
AsD
LeC
BaB
BaC
VxB
W
PUBFx
PUBHx
NxB
VcB
McB
NcB
NcA
PFO1E
MxB
WgB
LbD
LbB
LaB
LaC
MfC
VfC
McC
Roosevelt Hwy
Heaven Bound Ln
Faux Hill Rd
Someday Ln
Dietrich Ln
Stanek Rd
6

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- NWI FRESHWATER FORESTED/SHRUB WETLAND
- NWI FRESHWATER POND
- 3DHP LAKE

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ENVIRONMENTAL DATA REVIEW MAP

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DATE:	11/14/2025	SCALE:	1"=250'	PROJECT NO:	343-695		

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PFO1E
L1UBHh
R5UBH
W
Highview Ln
Highview Ln

VcB NcA NxB MxB AsD NcB W McB VcA LeC LaC MrB VcB WcB McC L1UBHh W VcB MfC MrA McB VcB VxD WcB VxB McC VcB LaC R5UBH BaC McB LaD MhB OcD McD FA LCE

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- NWI FRESHWATER FORESTED/SHRUB WETLAND
- NWI LAKE
- NWI RIVERINE
- 3DHP LAKE
- 3DHP RIVER
- 3DHP WATERBODY CONNECTOR

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ENVIRONMENTAL DATA REVIEW MAP

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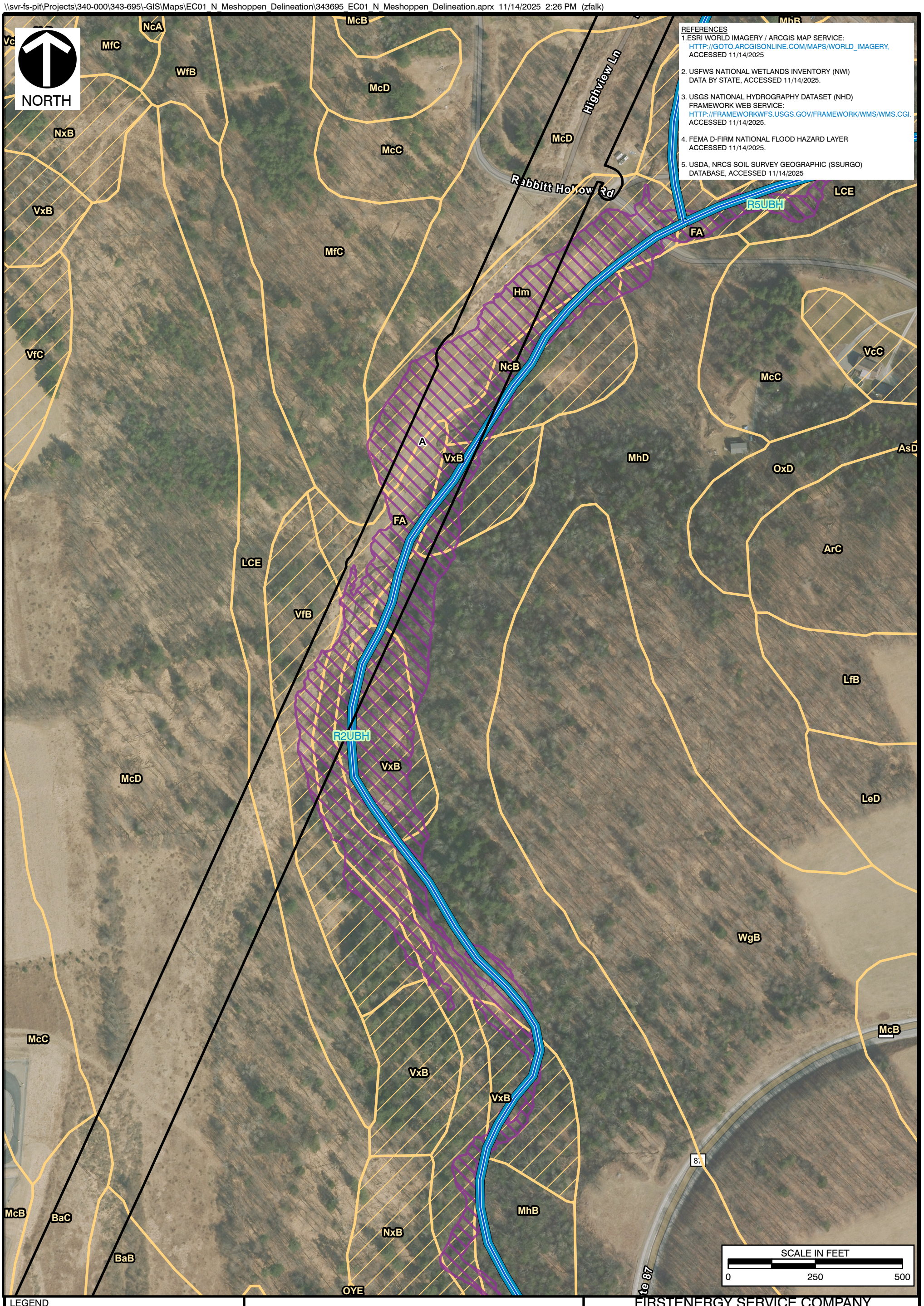

LEGEND

- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 1% ANNUAL CHANCE FLOOD HAZARD
- NWI RIVERINE
- 3DHP RIVER

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DATE:	11/14/2025	SCALE:	1"=250'	PROJECT NO:	343-695		

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WcB MrB McC WfC Meshoppany Ridge Rd MfC McB OfB OxD BaB LbD BbD LCE BaC BbD McC BaB OYE PUBHx BaB Ur BaC BaD UnC UnB State Route 87 87 State Route 87 State Route 87 Ur WyB A

SCALE IN FEET
0 250 500

LEGEND
- AREA OF INTEREST (AOI)
- MAPPED NON-HYDRIC SOIL
- MAPPED HYDRIC SOIL
- 1% ANNUAL CHANCE FLOOD HAZARD
- NWI FRESHWATER POND
- 3DHP LAKE

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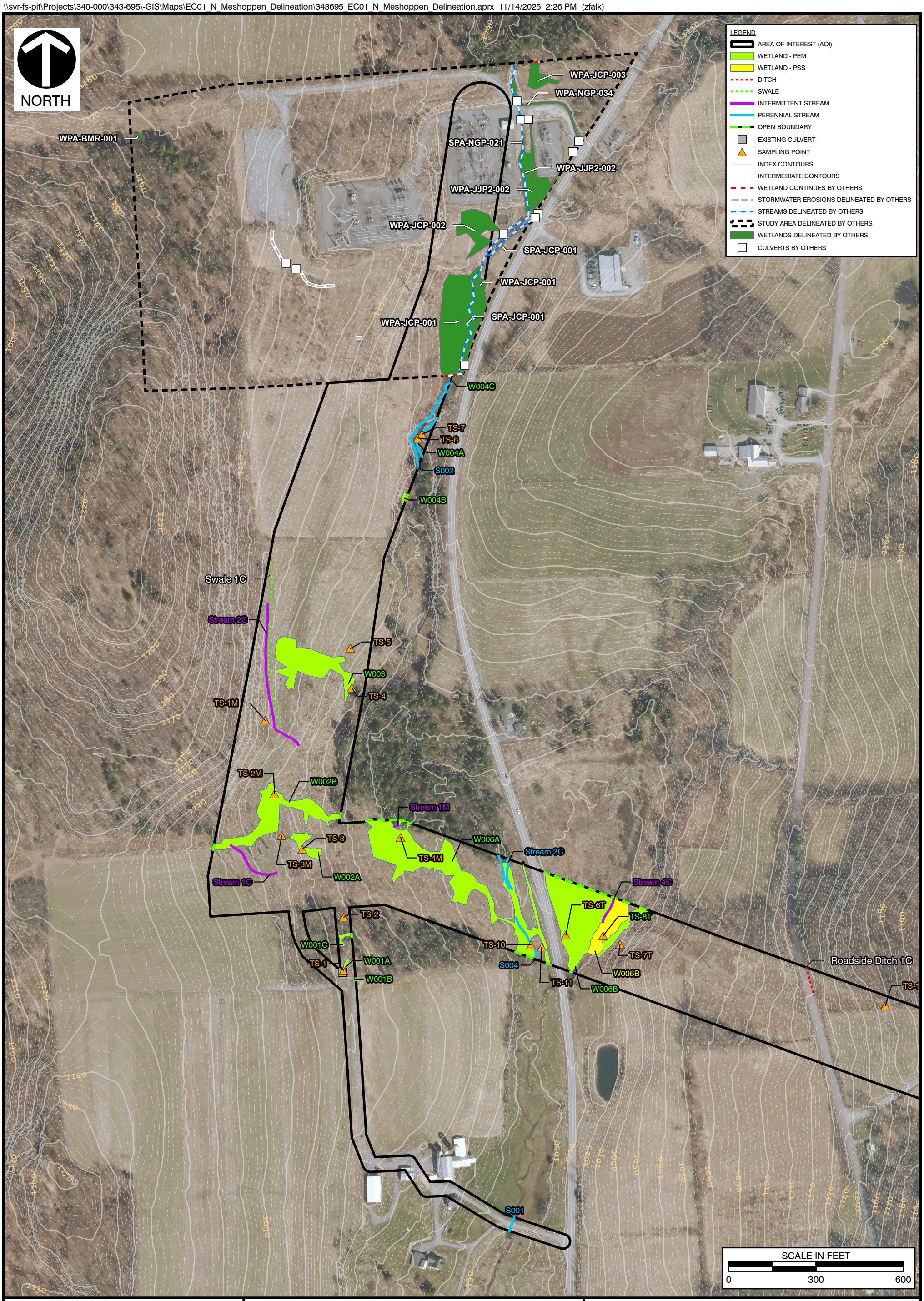

REFERENCES
1. PENNSYLVANIA EMERGENCY MANAGMENT AGNECY (PEMA) IMAGERY WEB MAPPING SERVICE DATED: 2018-2020

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FIRSTENERGY SERVICE COMPANY
NORTH MESHOPPEN MEHOOPANY (NMM) #1
SUSQUEHANNA COUNTY, PENNSYLVANIA

WATERS DELINEATION MAP

DRAWN BY:	ZAF	CHECKED BY:	CMCh	APPROVED BY:	MRM*	FIGURE NO:	3A
DATE:	11/14/2025	SCALE:	1" = 300'	PROJECT NO:	343-695		

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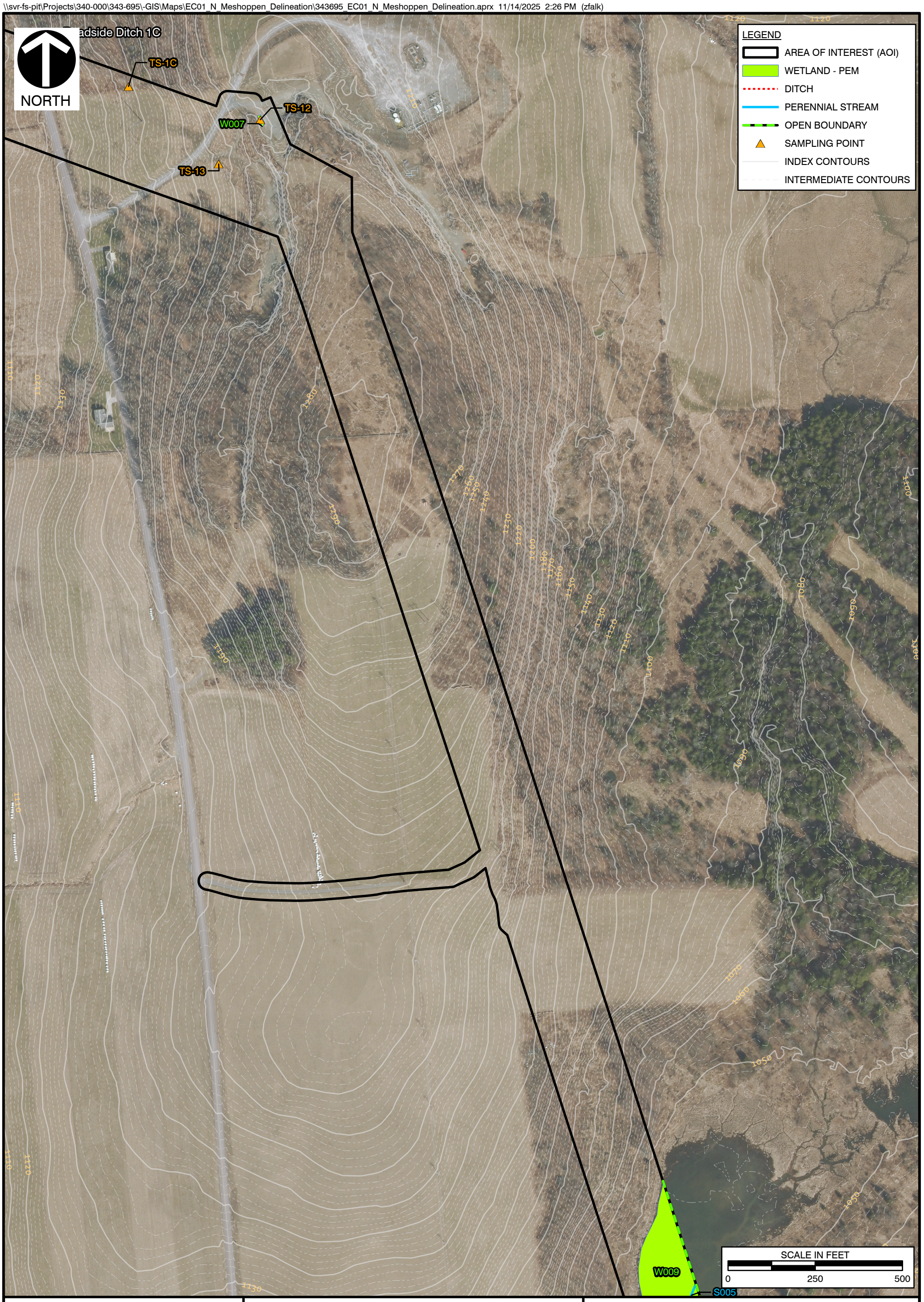

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WATERS DELINEATION MAP

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NORTH

LEGEND
- AREA OF INTEREST (AOI)
- WETLAND - PEM
- EPHEMERAL STREAM
- PERENNIAL STREAM
- OPEN BOUNDARY
- EXISTING CULVERT
- SAMPLING POINT
- INDEX CONTOURS
- INTERMEDIATE CONTOURS

W009
S005
S005
TS-16
TS-15
W008
TS-14
S006

SCALE IN FEET
0 250 500

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SUSQUEHANNA COUNTY, PENNSYLVANIA

WATERS DELINEATION MAP

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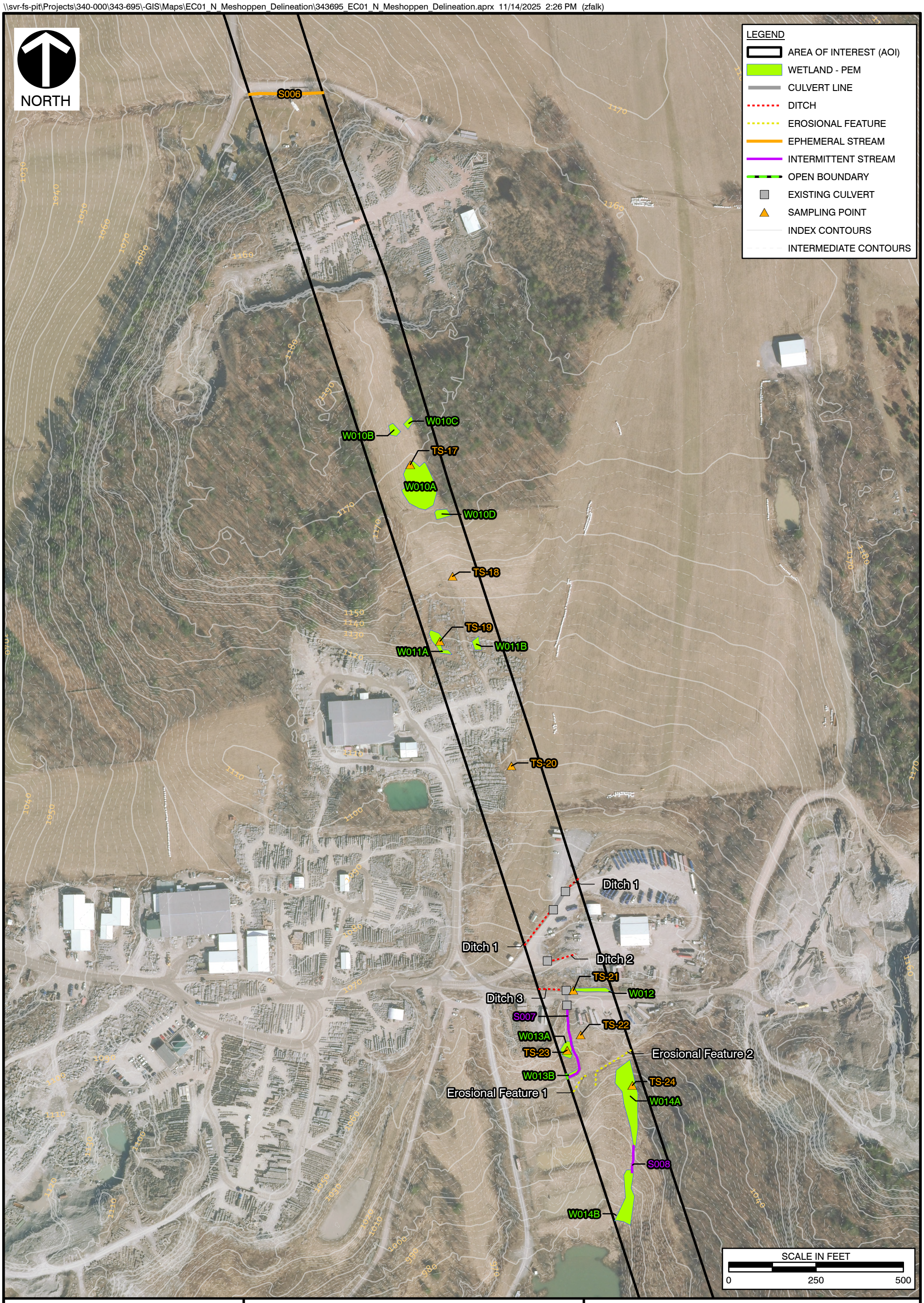

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WATERS DELINEATION MAP

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NORTH

LEGEND
- AREA OF INTEREST (AOI)
- WETLAND - PEM
- CULVERT LINE
- DITCH
- EROSIONAL FEATURE
- INTERMITTENT STREAM
- PERENNIAL STREAM
- OPEN BOUNDARY
- EXISTING CULVERT
- SAMPLING POINT
- INDEX CONTOURS
- INTERMEDIATE CONTOURS

TS-20
Ditch 1
Ditch 1
Ditch 2
TS-21
Ditch 3
W012
S007
TS-22
W013A
TS-23
Erosional Feature 2
W013B
TS-24
Erosional Feature 1
W014A
S008
W014B
TS-25
W015
TS-26
TS-28
TS-27
W016A
Ditch 4
TS-5T
Ditch 4
W016B
S009

SCALE IN FEET
0 250 500

REFERENCES
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SUSQUEHANNA COUNTY, PENNSYLVANIA

WATERS DELINEATION MAP

DRAWN BY:	ZAF	CHECKED BY:	CMCh	APPROVED BY:	MRM*	FIGURE NO: 3E
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NORTH

LEGEND

- AREA OF INTEREST (AOI)
- WETLAND - PEM
- WETLAND - PSS
- CULVERT LINE
- DITCH
- INTERMITTENT STREAM
- PERENNIAL STREAM
- OPEN BOUNDARY
- EXISTING CULVERT
- SAMPLING POINT
- INDEX CONTOURS
- INTERMEDIATE CONTOURS

TS-29
Ditch 5
TS-4T
S001T
TS-1T
W001T
TS-2T
W001T
W001T
TS-3T
TS-30
W017
S010
TS-31
S011
S011
Ditch 6

SCALE IN FEET
0 250 500

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SUSQUEHANNA COUNTY, PENNSYLVANIA

WATERS DELINEATION MAP

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NORTH

LEGEND
- AREA OF INTEREST (AOI)
- WETLAND - PEM
- CULVERT LINE
- OPEN BOUNDARY
- SAMPLING POINT
- INDEX CONTOURS
- INTERMEDIATE CONTOURS

W019B
TS-35
W019A
TS-34
W018E
TS-33
W018D
W018A
TS-32
W018B
W018C
W020B
W020C
W020A
TS-36
TS-37

SCALE IN FEET
0 250 500

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WATERS DELINEATION MAP

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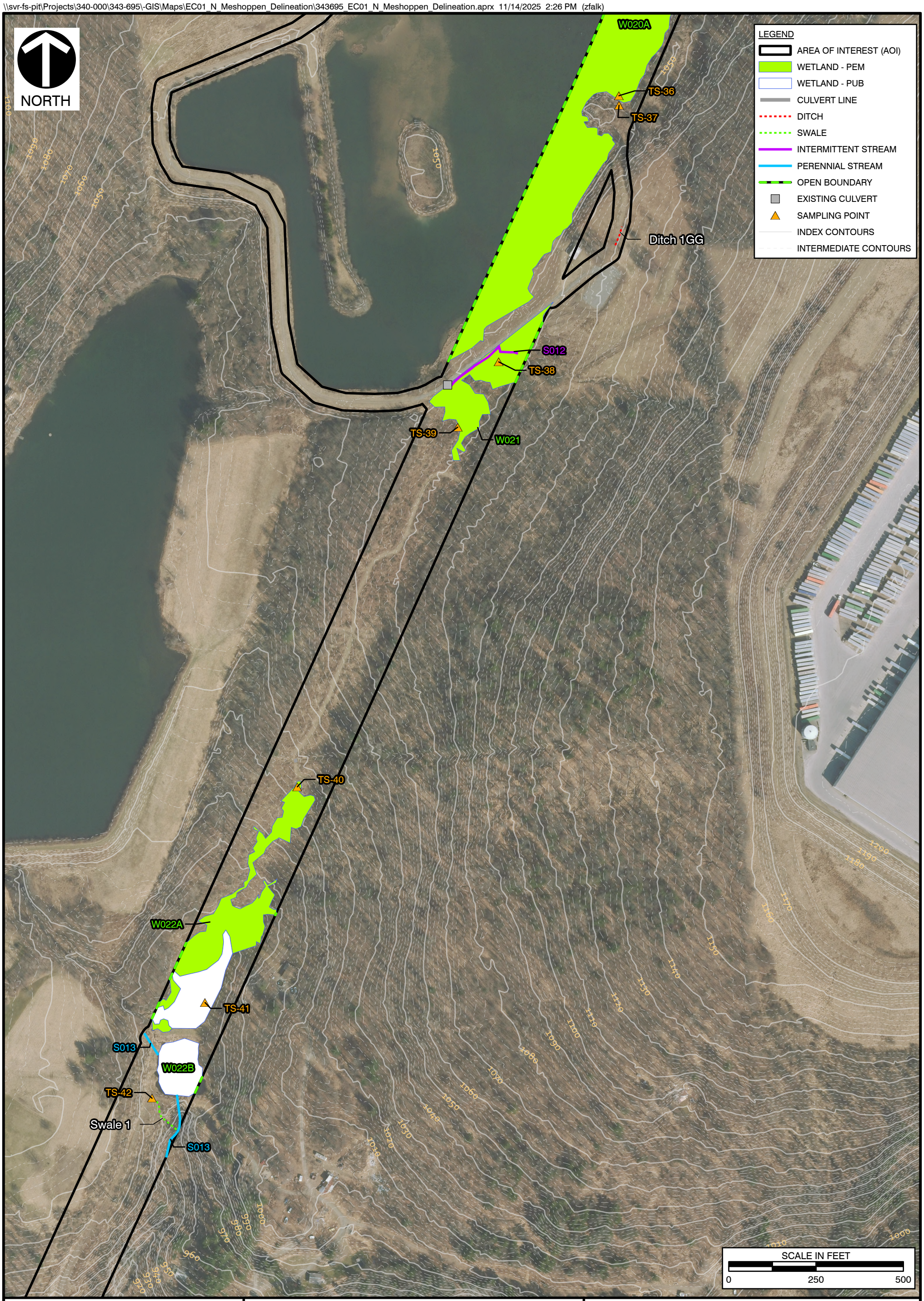

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WATERS DELINEATION MAP

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DATE:	11/14/2025	SCALE:	1" = 250'	PROJECT NO:	343-695		

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NORTH

LEGEND
- AREA OF INTEREST (AOI)
- WETLAND - PEM
- CULVERT LINE
- SWALE
- INTERMITTENT STREAM
- PERENNIAL STREAM
- OPEN BOUNDARY
- EXISTING CULVERT
- SAMPLING POINT
- INDEX CONTOURS
- INTERMEDIATE CONTOURS

TS-43
W023
TS-44
S014
S015
S014
Swale 2
S014 Backwater Channel
TS-45
W024
TS-46

SCALE IN FEET
0 250 500

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WATERS DELINEATION MAP

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DATE:	11/14/2025	SCALE:	1" = 250'	PROJECT NO:	343-695		

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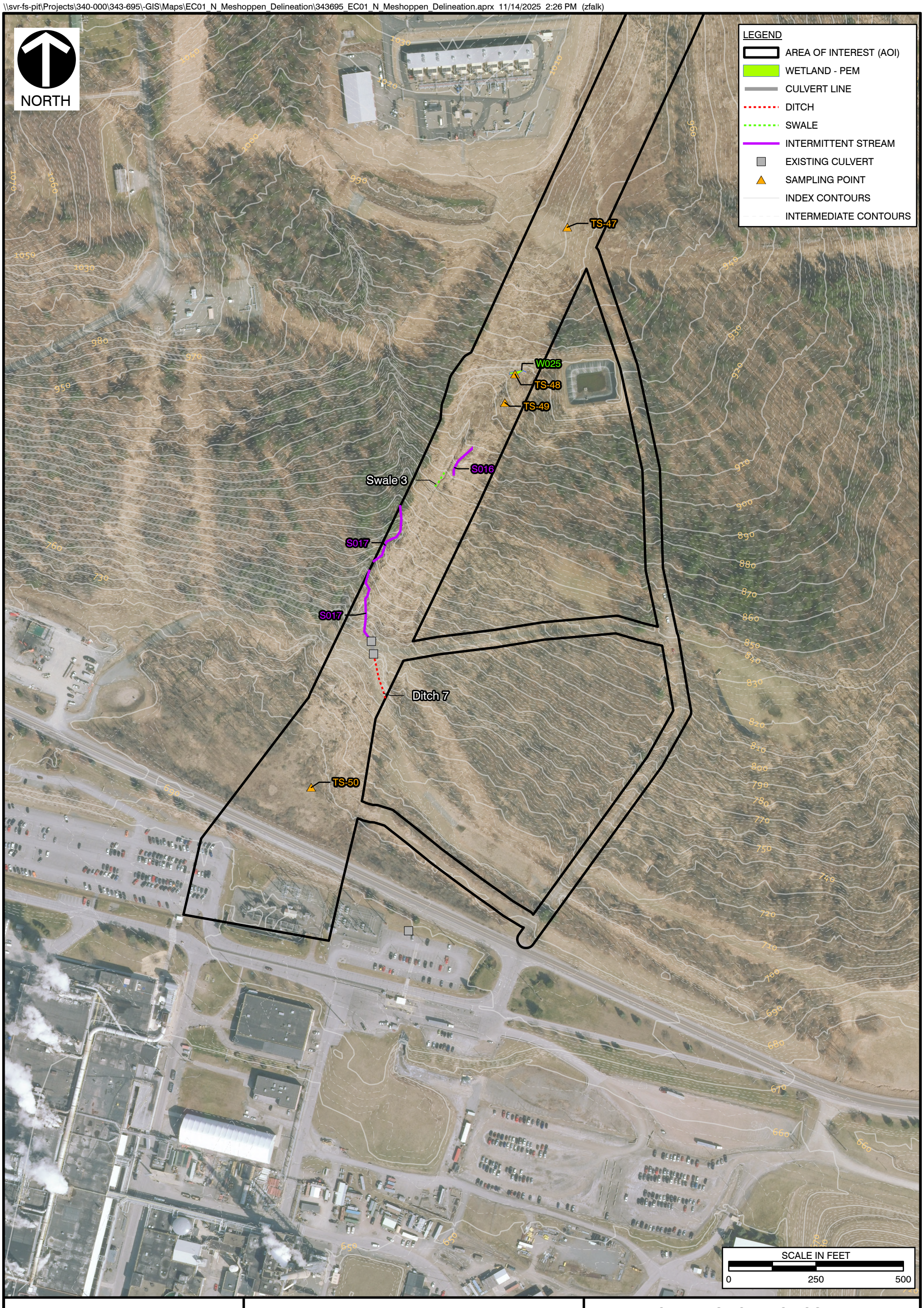

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WATERS DELINEATION MAP

DRAWN BY:	ZAF	CHECKED BY:	CMCh	APPROVED BY:	MRM*	FIGURE NO:	3J
DATE:	11/14/2025	SCALE:	1" = 250'	PROJECT NO:	343-695		

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APPENDIX A

SOIL INFORMATION

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components–PA115-Susquehanna County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
BfC2: Bath flaggy loam, 12 to 20 percent slopes, moderately eroded	Bath	100	Mountains	No	—
BfD2: Bath flaggy loam, 20 to 30 percent slopes, moderately eroded	Bath	100	Mountains	No	—
BsF: Bath very stony loam, 30 to 60 percent slopes	Bath	100	Mountains	No	—
LaC2: Lackawanna channery silt loam, 12 to 20 percent slopes, eroded	Lackawanna-Eroded	90	Mountains,hills	No	—
	Wellsboro	5	Mountains,hills	No	—
	Oquaga	5	Mountains,hills	No	—
LoC: Lordstown, Oquaga, and Bath soils, 3 to 12 percent slopes	Lordstown	35	Mountains,hills	No	—
	Oquaga	30	Mountains,hills	No	—
	Bath	20	Mountains,hills	No	—
	Arnot	10	Mountains,hills	No	—
	Wellsboro	5	Mountains,hills	No	—
	Rock outcrop	0-1	—	No	—
LsF: Lordstown, Oquaga, and Cadosia soils, 25 to 60 percent slopes, extremely bouldery	Lordstown-Extremely bouldery	35	Mountains,hills	No	—
	Oquaga-Extremely bouldery	30	Mountains,hills	No	—
	Cadosia-Extremely bouldery	25	Ridges	No	—
	Arnot-Extremely stony	8	Mountains,hills	No	—
	Rock outcrop	0-5	—	No	—
McC2: Mardin channery silt loam, 8 to 15 percent slopes, eroded	Mardin-Eroded	88	Mountains,hills	No	—
	Volusia	5	Mountains,hills	No	—
	Bath-Eroded	5	Mountains,hills	No	—
	Lordstown	2	Mountains,hills	No	—
MfD2: Mardin flaggy silt loam, 15 to 25 percent slopes, eroded	Mardin-Eroded	85	Mountains,hills	No	—
	Volusia	5	Mountains,hills	No	—
	Bath-Eroded	5	Mountains,hills	No	—
	Lordstown-Very stony	5	Mountains,hills	No	—

Hydric Soil List - All Components–PA115-Susquehanna County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
MoC2: Morris channery silt loam, 8 to 15 percent slopes, eroded	Morris-Eroded	85	Mountains,hills	No	—
	Wellsboro	5	Mountains,hills	No	—
	Norwich	5	Depressions	Yes	2
	Oquaga	5	Mountains,hills	No	—
MsD: Morris channery silt loam, 8 to 25 percent slopes, extremely stony	Morris-Extremely stony	85	Mountains,hills	No	—
	Wellsboro-Extremely stony	5	Mountains,hills	No	—
	Norwich-Extremely stony	5	Depressions	Yes	2
	Oquaga-Extremely stony	5	Mountains,hills	No	—
VcA: Volusia channery silt loam, 0 to 3 percent slopes	Volusia	90	Mountains,hills	No	—
	Chippewa	5	Depressions	Yes	2
	Mardin	5	Mountains,hills	No	—
VcC2: Volusia channery silt loam, 8 to 15 percent slopes, eroded	Volusia-Eroded	90	Mountains,hills	No	—
	Mardin-Eroded	6	Mountains,hills	No	—
	Chippewa	4	Depressions	Yes	2
VfC: Volusia flaggy silt loam, 8 to 15 percent slopes	Volusia	90	Mountains,hills	No	—
	Mardin	6	Mountains,hills	No	—
	Chippewa	4	Depressions	Yes	2
WeB2: Wellsboro channery silt loam, 3 to 8 percent slopes, eroded	Wellsboro	85	Mountains,hills	No	—
	Lackawanna	5	Mountains,hills	No	—
	Morris	5	Mountains,hills	No	—
	Oquaga	5	Mountains,hills	No	—
WeC2: Wellsboro channery silt loam, 8 to 15 percent slopes, eroded	Wellsboro	90	Mountains,hills	No	—
	Lackawanna	5	Mountains,hills	No	—
	Morris	5	Mountains,hills	No	—

Hydric Soil List - All Components–PA131-Wyoming County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
ArC: Arnot very channery silt loam, 3 to 15 percent slopes, very rocky	Arnot-Very stony	75	Hills,mountains	No	—
	Lordstown-Very stony	9	Hills,mountains	No	—
	Oquaga-Very stony	9	Hills,mountains	No	—
	Rock outcrop	5-10	—	No	—
ASE: Arnot-Rock outcrop complex, steep	Arnot-Rubbly	50	Hills,mountains	No	—
	Rock outcrop	30	—	No	—
	Cadosia-Very stony	10	Ridges	No	—
	Oquaga-Rubbly	10	Hills,mountains	No	—
BaB: Bath channery silt loam, 3 to 8 percent slopes	Bath	85	Hills,mountains	No	—
	Mardin	10	Hills,mountains	No	—
	Lordstown	5	Hills,mountains	No	—
BaC: Bath channery silt loam, 8 to 15 percent slopes	Bath	90	Hills,mountains	No	—
	Lordstown	5	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
BaD: Bath channery silt loam, 15 to 25 percent slopes	Bath	85	Hills,mountains	No	—
	Lordstown	10	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
BbD: Bath channery silt loam, 8 to 25 percent slopes, rubbly	Bath-Rubbly	85	Hills,mountains	No	—
	Mardin-Rubbly	5	Hills,mountains	No	—
	Lordstown-Extremely stony	5	Hills,mountains	No	—
	Lackawanna-Rubbly	5	Hills,mountains	No	—
FA: Fluvents and Fluvaquents	Fluvents	50	Flood-plain steps	No	—
	Fluvaquents	40	Depressions	Yes	2,3,4
	Philo	5	—	No	—
	Pope	5	—	No	—
Hm: Holly silt loam	Holly	95	Backswamps,depressions on flood plains	Yes	2
	Philo	5	Flood plains	No	—
Ho: Holly silt loam, ponded	Holly	100	Backswamps,depressions on flood plains	Yes	2
LaC: Lackawanna channery loam, 8 to 15 percent slopes	Lackawanna	85	Hills,mountains	No	—
	Wellsboro	10	Mountains,hills	No	—

Hydric Soil List - All Components–PA131-Wyoming County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
	Oquaga	3	Hills,mountains	No	—
	Morris	2	Hills,mountains	No	—
LbB: Lackawanna channery loam, 3 to 8 percent slopes, rubbly	Lackawanna-Rubbly	90	Hills,mountains	No	—
	Wellsboro-Rubbly	10	Hills,mountains	No	—
LbD: Lackawanna channery loam, 8 to 25 percent slopes, rubbly	Lackawanna-Rubbly	90	Hills,mountains	No	—
	Wellsboro-Rubbly	10	Hills,mountains	No	—
LCE: Lackawanna and Bath soils, steep, rubbly	Lackawanna-Rubbly	40	Hills,mountains	No	—
	Bath-Rubbly	30	Hills,mountains	No	—
	Lordstown-Rubbly	8	Hills,mountains	No	—
	Oquaga-Rubbly	8	Hills,mountains	No	—
	Wellsboro-Extremely stony	7	Hills,mountains	No	—
	Mardin-Rubbly	7	Hills,mountains	No	—
LeB: Lordstown channery silt loam, 3 to 8 percent slopes	Lordstown	90	Hills,mountains	No	—
	Arnot	5	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
LeC: Lordstown channery silt loam, 8 to 15 percent slopes	Lordstown	90	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
	Arnot	5	Hills,mountains	No	—
LeD: Lordstown channery silt loam, 15 to 25 percent slopes	Lordstown	85	Hills,mountains	No	—
	Cadosia-Very stony	5	Ridges	No	—
	Arnot	5	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
LfC: Lordstown flaggy silt loam, 8 to 15 percent slopes	Lordstown	90	Hills,mountains	No	—
	Arnot	5	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
LxB: Lordstown channery silt loam, 3 to 8 percent slopes, rubbly	Lordstown-Rubbly	90	Hills,mountains	No	—
	Bath-Rubbly	5	Hills,mountains	No	—
	Arnot-Very stony	5	Hills,mountains	No	—
LxD: Lordstown channery silt loam, 8 to 25 percent slopes, rubbly	Lordstown-Rubbly	85	Hills,mountains	No	—
	Arnot-Very stony	5	Hills,mountains	No	—

Hydric Soil List - All Components–PA131-Wyoming County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
	Bath-Rubbly	5	Hills,mountains	No	—
	Cadosia-Extremely stony	5	Ridges	No	—
McB: Mardin channery silt loam, 3 to 8 percent slopes	Mardin	85	Hills,mountains	No	—
	Volusia	5	Hills,mountains	No	—
	Bath	5	Hills,mountains	No	—
	Lordstown	5	Hills,mountains	No	—
McC: Mardin channery silt loam, 8 to 15 percent slopes	Mardin	88	Hills,mountains	No	—
	Volusia	5	Mountains,hills	No	—
	Bath	5	Hills,mountains	No	—
	Lordstown	2	Hills,mountains	No	—
McD: Mardin channery silt loam, 15 to 25 percent slopes	Mardin	85	Hills,mountains	No	—
	Volusia	5	Hills,mountains	No	—
	Bath	5	Hills,mountains	No	—
	Lordstown	5	Hills,mountains	No	—
MfC: Mardin flaggy silt loam, 8 to 15 percent slopes	Mardin	88	Hills,mountains	No	—
	Volusia	5	Hills,mountains	No	—
	Bath	5	Hills,mountains	No	—
	Lordstown-Very stony	2	Hills,mountains	No	—
MhB: Mardin channery silt loam, 3 to 8 percent slopes, rubbly	Mardin-Rubbly	85	Hills,mountains	No	—
	Volusia-Rubbly	6	Hills,mountains	No	—
	Bath-Rubbly	6	Hills,mountains	No	—
	Lordstown-Very stony	3	Hills,mountains	No	—
MhD: Mardin channery silt loam, 8 to 25 percent slopes, rubbly	Mardin-Rubbly	85	Hills,mountains	No	—
	Volusia-Rubbly	5	Hills,mountains	No	—
	Bath-Rubbly	5	Hills,mountains	No	—
	Lordstown-Extremely stony	5	Hills,mountains	No	—
MxB: Morris channery loam, 0 to 8 percent slopes, rubbly	Morris-Rubbly	90	Mountains,hills	No	—
	Wellsboro-Rubbly	5	Mountains,hills	No	—
	Norwich-Rubbly	5	Depressions	Yes	2

Hydric Soil List - All Components–PA131-Wyoming County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
NcA: Norwich and Chippewa channery silt loams, 0 to 3 percent slopes	Norwich	45	Depressions	Yes	2
	Chippewa	35	Depressions	Yes	2
	Volusia	5	Hills,mountains	No	—
	Morris	5	Hills,mountains	No	—
	Chippewa-Very poorly drained	5	Depressions	Yes	2,3
	Norwich-Very poorly drained	5	Depressions	Yes	2,3
NcB: Norwich and Chippewa channery silt loams, 3 to 8 percent slopes	Norwich	45	Depressions	Yes	2
	Chippewa	35	Depressions	Yes	2
	Volusia	5	Hills,mountains	No	—
	Morris	5	Hills,mountains	No	—
	Chippewa-Very poorly drained	5	Depressions	Yes	2,3
	Norwich-Very poorly drained	5	Depressions	Yes	2,3
NxB: Norwich and Chippewa channery silt loams, 0 to 8 percent slopes, rubbly	Norwich-Rubbly	45	Depressions	Yes	2
	Chippewa-Rubbly	40	Depressions	Yes	2
	Norwich-Rubbly, very poorly drained	5	Depressions	Yes	2,3
	Chippewa-Rubbly, very poorly drained	5	Depressions	Yes	2,3
	Morris-Rubbly	3	Hills,mountains	No	—
	Volusia-Extremely stony	2	Hills,mountains	No	—
OcD: Oquaga channery loam, 15 to 25 percent slopes	Oquaga	85	Hills,mountains	No	—
	Cadosia-Very stony	5	Ridges	No	—
	Wellsboro	5	Hills,mountains	No	—
	Arnot-Very stony	5	Hills,mountains	No	—
OYE: Oquaga and Lordstown channery loams, 25 to 70 percent slopes, rubbly	Oquaga-Rubbly	55	Hills,mountains	No	—
	Lordstown-Rubbly	25	Hills,mountains	No	—
	Cadosia-Rubbly	10	Ridges	No	—
	Arnot-Extremely stony	10	Hills,mountains	No	—
	Rock outcrop	0-5	—	No	—

Hydric Soil List - All Components–PA131-Wyoming County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
Ph: Philo silt loam	Philo	85	Flood plains	No	—
	Holly	5	Depressions on flood plains,backswamps	Yes	2
	Pope	5	—	No	—
	Pope-Rarely flooded	5	—	No	—
Qu: Quarries	Quarries	100	—	No	—
UnB: Unadilla silt loam, 3 to 8 percent slopes	Unadilla	95	Outwash terraces	No	—
	Wyoming	5	—	No	—
UnC: Unadilla silt loam, 8 to 15 percent slopes	Unadilla	95	Outwash terraces	No	—
	Wyoming	5	—	No	—
Ur: Urban land	Urban land	100	—	No	—
VcA: Volusia channery silt loam, 0 to 3 percent slopes	Volusia	90	Hills,mountains	No	—
	Mardin	5	Hills,mountains	No	—
	Chippewa	5	Depressions	Yes	2
VcB: Volusia channery silt loam, 3 to 8 percent slopes	Volusia	90	Hills,mountains	No	—
	Chippewa	5	Depressions	Yes	2
	Mardin	5	Hills,mountains	No	—
VcC: Volusia channery silt loam, 8 to 18 percent slopes	Volusia	90	Hills	No	—
	Mardin	6	Hills,mountains	No	—
	Chippewa	4	Depressions	Yes	2
VfB: Volusia flaggy silt loam, 3 to 8 percent slopes	Volusia	90	Hills,mountains	No	—
	Chippewa	5	Depressions	Yes	2
	Mardin	5	Hills,mountains	No	—
VfC: Volusia flaggy silt loam, 8 to 15 percent slopes	Volusia	90	Hills,mountains	No	—
	Mardin	6	Hills,mountains	No	—
	Chippewa	4	Depressions	Yes	2
VxB: Volusia channery silt loam, 0 to 8 percent slopes, rubbly	Volusia-Rubbly	90	Hills,mountains	No	—
	Mardin-Rubbly	5	Hills,mountains	No	—
	Chippewa-Rubbly	5	Depressions	Yes	2
VxD: Volusia channery silt loam, 8 to 25 percent slopes, rubbly	Volusia-Rubbly	90	Hills	No	—
	Mardin-Rubbly	6	Hills,mountains	No	—
	Chippewa-Rubbly	4	Depressions	Yes	2

Hydric Soil List - All Components–PA131-Wyoming County, Pennsylvania					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
W: Water	Water	100	—	Unranked	—
WgB: Wellsboro channery loam, 3 to 8 percent slopes, rubbly	Wellsboro-Rubbly	85	Mountains,hills	No	—
	Lackawanna-Rubbly	10	Mountains,hills	No	—
	Morris-Rubbly	5	Mountains,hills	No	—
WyD: Wyoming gravelly sandy loam, 15 to 25 percent slopes	Wyoming	95	Terraces	No	—
	Unadilla	5	Outwash terraces	No	—
WyE: Wyoming gravelly sandy loam, 25 to 45 percent slopes	Wyoming	100	Terraces	No	—

Data Source Information

Soil Survey Area: Susquehanna County, Pennsylvania
Survey Area Data: Version 21, Sep 5, 2024

Soil Survey Area: Wyoming County, Pennsylvania
Survey Area Data: Version 20, Sep 5, 2024

APPENDIX B

PHOTOGRAPHIC SUMMARY

1. Wetland Test Site, TS-1, W001A, W001B, & W001C
Photo Facing: North

2. Overview of Wetland W001A, PEM
Photo Facing: North

3. Overview of Wetland W001B, PEM
Photo Facing: East

4. Overview of Wetland W001C, PEM
Photo Facing: West

5. Upland Test Site, TS-2
Photo Facing: North

6. Wetland Test Site, TS-3, W002A & W002B
Photo Facing: North

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7. Overview of W002A, PEM
Photo Facing: East

8. Overview of Wetland W002B, PEM
Photo Facing: South

9. Wetland Test Site, TS-4, W003
Photo Facing: South

10. Overview of Wetland W003, PEM
Photo Facing: Northeast

11. Upland Test Site, TS-5
Photo Facing: Northeast

12. Wetland Test Site TS-6 W004A, W004B, & W004C
Photo Facing: North

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13. Overview of Wetland W004A, PEM
Photo Facing: North

14. Overview of Wetland W004B, PEM
Photo Facing: South

15. Overview of Wetland W004C, PEM
Photo Facing: South

16. Upland Test Site, TS-7
Photo Facing: North

17. Wetland Test Site, TS-10, W006A & W006B
Photo Facing: North

18. Overview of Wetland W006A, PEM
Photo Facing: South

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19. Overview of Wetland W006B, PEM
Photo Facing: North

20. Upland Test Site, TS-11
Photo Facing: West

21. Wetland Test Site, TS-12, W007
Photo Facing: West

22. Overview of Wetland W007, PEM
Photo Facing: Northwest

23. Upland Test Site, TS-13
Photo Facing: East

24. Wetland Test Site, TS-14, W008
Photo Facing: East

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25. Overview of Wetland W008, PEM
Photo Facing: North

26. Upland Test Site, TS-15
Photo Facing: North

27. Wetland Test Site, TS-16, W009
Photo Facing: North

28. Overview of Wetland W009, PEM
Photo Facing: Northeast

29. Wetland Test Site, TS-17, W010A, W010B, W010C, & W010D
Photo Facing: Southeast

30. Overview of Wetland W010A, PEM
Photo Facing: Southeast

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31. Overview of Wetland W010B, PEM
Photo Facing: North

32. Overview of Wetland W010C, PEM
Photo Facing: Northwest

33. Overview of Wetland W010D, PEM
Photo Facing: East

34. Upland Test Site, TS-18
Photo Facing: South

35. Wetland Test Site, TS-19, W011A & W011B
Photo Facing: North

36. Overview of Wetland W011A, PEM
Photo Facing: South

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37. Overview of Wetland W011B, PEM
Photo Facing: Southeast

38. Upland Test Site, TS-20
Photo Facing: Northwest

39. Wetland Test Site, TS-21, W012
Photo Facing: North

40. Overview of Wetland W012, PEM
Photo Facing: Northwest

41. Upland Test Site, TS-22
Photo Facing: Northeast

42. Wetland Test Site, TS-23, W013A & W013B
Photo Facing: West

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43. Overview of Wetland W013A, PEM
Photo Facing: Northwest

44. Overview of Wetland W013B, PEM
Photo Facing: West

45. Wetland Test Site, TS-24, and Overview of Wetland W014A, PEM
Photo Facing: Northwest

46. Overview of Wetland W014B, PEM
Photo Facing: Southwest

47. Wetland Test Site, TS-25, W015
Photo Facing: West

48. Overview of Wetland W015
Photo Facing: South

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49. Upland Test Site, TS-26
Photo Facing: South

50. Wetland Test Site, TS-27, W016A & W016B
Photo Facing: South

51. Overview of Wetland W016A, PEM
Photo Facing: East

52. Overview of Wetland W016B, PEM
Photo Facing: East

53. Upland Test Site, TS-28
Photo Facing: North

54. Upland Test Site, TS-29
Photo Facing: Northeast

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55. Wetland Test Site, TS-30, W017, PEM
Photo Facing: Southeast

56. Overview of Wetland W017, PEM
Photo Facing: West

57. Upland Test Site, TS-31
Photo Facing: West

58. Wetland Test Site, TS-32, W018A, W018B, W018C, W018D, & W108E
Photo Facing: West

59. Overview of Wetland W018A, PEM
Photo Facing: East

60. Overview of Wetland W018B, PEM
Photo Facing: West

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61. Overview of Wetland W018C, PEM
Photo Facing: East

62. Upland Test Site, TS-33
Photo Facing: Southeast

63. Wetland Test Site, TS-34, W019A & W019B, PEM
Photo Facing: North

64. Overview of Wetland W019A, PEM
Photo Facing: South

65. Overview of Wetland W019B, PEM
Photo Facing: East

66. Upland Test Site, TS-35
Photo Facing: East

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67. Wetland Test Site, TS-36, W020A, W020B & W020C
Photo Facing: Northeast

68. Overview of W020A, PEM
Photo Facing: North

69. Overview of Wetland W020B, PEM
Photo Facing: North

70. Overview of Wetland W020C, PEM
Photo Facing: Southwest

71. Upland Test Site, TS-37
Photo Facing: Southwest

72. Wetland Test Site, TS-38, W021
Photo Facing: North

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73. Overview of Wetland W021, PEM
Photo Facing: North

74. Upland Test Site, TS-39
Photo Facing: West

75. Wetland Test Site, TS-40, W022A & W022B
Photo Facing: North

76. Overview of Wetland W022A, PEM
Photo Facing: Southeast

77. Overview of Wetland W022B, PEM
Photo Facing: North

78. Wetland Test Site, TS-41, W002A
Photo Facing: West

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79. Upland Test Site, TS-42
Photo Facing: Northeast

80. Wetland Test Site, TS-43, W023
Photo Facing: West

81. Overview of Wetland W023, PEM
Photo Facing: West

82. Upland Test Site TS-44
Photo Facing: North

83. Wetland Test Site, TS-45, W024
Photo Facing: East

84. Overview of Wetland W024, PEM
Photo Facing: Northeast

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85. Upland Test Site, TS-46
Photo Facing: Northeast

86. Upland Test Site, TS-47
Photo Facing: Northeast

87. Wetland Test Site, TS-48, W025
Photo Facing: West

88. Overview of Wetland W025, PEM
Photo Facing: East

89. Upland Test Site, TS-49
Photo Facing: North

90. Upland Test Site, TS-50
Photo Facing: Southwest

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91. Upland Test Site, TS-1C
Photo Facing: Northwest

92. Upland Test Site, TS-1M
Photo Facing: North

93. Wetland Test Site, TS-2M, W002B
Photo Facing: West

94. Upland Test Site, TS-3M
Photo Facing: North

95. Wetland Test Site, TS-4M, W006A
Photo Facing: South

96. Wetland Test Site, TS-1T in W001T
Photo Facing: North

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97. Overview of Wetland W001T, PEM
Photo Facing: East

98. Wetland Test Site, TS-2T, W001T, PSS
Photo Facing: Northeast

99. Overview of Wetland W001T, PSS
Photo Facing: North

100. Upland Test Site, TS-3T
Photo Facing: North

101. Upland Test Site, TS-4T
Photo Facing: Northwest

102. Wetland Test Site, TS-5T, W016B
Photo Facing: Northwest

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103. Wetland Test Site, TS-6T, W006B, PEM
Photo Facing: Northwest

104. Upland Test Site, TS-7T
Photo Facing: West

105. Wetland Test Site, TS-8T, W006B, PSS
Photo Facing: East

106. Overview of Wetland W006B, PSS
Photo Facing: Northeast

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107. Stream S001, Perennial, Upstream
Photo Facing: Northeast

108. Stream S001, Perennial, Downstream
Photo Facing: North

109. Stream S002, Perennial, Upstream
Photo Facing: Northeast

110. Stream S002, Perennial, Downstream
Photo Facing: Southwest

111. Stream S004, Perennial, Upstream
Photo Facing: North

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112. Stream S004, Perennial, Downstream
Photo Facing: South

113. Stream S005, Perennial, Upstream
Photo Facing: Northeast

114. Stream S005, Perennial, Downstream
Photo Facing: Southwest

115. Stream S006, Ephemeral, Upstream
Photo Facing: East

116. Stream S006, Ephemeral, Downstream
Photo Facing: West

117. Stream S007, Intermittent, Upstream
Photo Facing: North

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118. Stream S007, Intermittent, Downstream
Photo Facing: South

119. Stream S008, Intermittent, Upstream
Photo Facing: North

120. Stream S008, Intermittent, Downstream
Photo Facing: South

121. Stream S009, Perennial, Upstream
Photo Facing: Northeast

122. Stream S009, Perennial, Downstream
Photo Facing: Southwest

123. Stream S010, Intermittent, Upstream
Photo Facing: West

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www.cecinc.com

FirstEnergy Inc.
North Meshoppen – Mehoopany (NMM) #1 & 2
343-695

Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

124. Stream S010, Intermittent, Downstream
Photo Facing: East

125. Stream S011, Perennial, Upstream
Photo Facing: East

126. Stream S011, Perennial, Downstream
Photo Facing: Northwest

127. Stream S012, Intermittent, Upstream
Photo Facing: Northeast

128. Stream S012, Intermittent, Downstream
Photo Facing: Southwest

129. Stream S013, Perennial, Upstream
Photo Facing: North

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Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

130. Stream S013, Perennial, Downstream
Photo Facing: South

131. Stream S014, Intermittent, Upstream
Photo Facing: Northeast

132. Stream S014, Intermittent, Downstream
Photo Facing: Southwest

133. Stream S015, Intermittent, Upstream
Photo Facing: Northwest

134. Stream S015, Intermittent, Downstream
Photo Facing: Southeast

135. Stream S016, Intermittent, Upstream
Photo Facing: North

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343-695

Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

136. Stream S017, Intermittent, Downstream
Photo Facing: South

137. Stream 1C, Intermittent, Upstream
Photo Facing: Northwest

138. Stream 1C, Intermittent, Downstream
Photo Facing: Southeast

139. Stream 2C, Intermittent, Upstream
Photo Facing: East

140. Stream 3C, Perennial, Upstream
Photo Facing: South

141. Stream 4C, Perennial, Downstream
Photo Facing: North

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Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

142. Stream 1M, Intermittent, Upstream
Photo Facing: West

143. Stream S001T, Intermittent, Upstream
Photo Facing: Northeast

144. Stream S001T, Intermittent, Downstream
Photo Facing: South

145. Ditch 1
Photo Facing: Southwest

146. Ditch 2
Photo Facing: Southwest

147. Ditch 3
Photo Facing: West

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343-695

Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

148. Ditch 4
Photo Facing: East

149. Ditch 5
Photo Facing: Southwest

150. Ditch 6
Photo Facing: North

151. Ditch 7
Photo Facing: Southeast

152. Erosional Feature 1
Photo Facing: East

153. Erosional Feature 2
Photo Facing: Northwest

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343-695

Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

154. Swale 1
Photo Facing: Northwest

155. Swale 3
Photo Facing: Northeast

156. Ditch 1GG
Photo Facing: Southwest

157. Roadside Ditch 1C
Photo Facing: South

158. Swale 1C
Photo Facing: South

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343-695

Photographs Taken: 10/22/24 – 10/30/24, 11/26/24, 4/15/25, 5/15/25, & 5/19/25

APPENDIX C

WETLAND DETERMINATION DATA SHEETS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Co. Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-1

Investigator(s): LEM, JMF Section, Township, Range: Auburn Township

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.650959 Long: -76.052347 Datum: NAD83 (2011)

Soil Map Unit Name: MoC2 - Morris channery silt loam, 8 to 15 percent slopes, eroded NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W001 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland abutting gravel access road, multiple parts of wetland in previously cleared access route.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	105	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	80	10YR 5/6	20	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-2

Investigator(s): LEM, JMF Section, Township, Range: Auburn Township

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.651510 Long: -76.052314 Datum: NAD83 (2011)

Soil Map Unit Name: MsD - Morris channery silt loam, 8 to 25 percent slopes, extremely stony NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
TS located in forest near electric ROW and PEM wetlands.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:
TS located in depression.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-2

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula papyrifera	30	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Solidago rugosa	25	Y	FAC
2. Poa pratensis	25	Y	FACU
3. Rubus allegheniensis	10	N	FACU
4. Rosa multiflora	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-3

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.652150 Long: -76.052847 Datum: NAD83 (2011)

Soil Map Unit Name: MoC2 - Morris channery silt loam, 8 to 15 percent slopes, eroded NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W002 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland located in electrical ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-3

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Scirpus atrovirens	25	Y	OBL
2. Scirpus cyperinus	25	Y	FACW
3. Solidago rugosa	15	N	FAC
4. Carex lurida	10	N	OBL
5. Juncus effusus	10	N	FACW
6. Carex lupulina	5	N	OBL
7. Poa palustris	5	N	FACW
8. Juncus tenuis	5	N	FAC
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	90	7.5YR 5/6	10	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-4

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.653655 Long: -76.052150 Datum: NAD83 (2011)

Soil Map Unit Name: MoC2 - Morris channery silt loam, 8 to 15 percent slopes, eroded NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W003 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland located in electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-4

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Carex vulpinoidea	30	Y	OBL
2. Carex lurida	25	Y	OBL
3. Scirpus atrovirens	25	Y	OBL
4. Juncus effusus	20	Y	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	75	7.5YR 5/6	25	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-5

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): None (flat) Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.654067 Long: -76.052200 Datum: NAD83 (2011)

Soil Map Unit Name: MoC2: Morris channery silt loam, 8 to 15 percent slopes, eroded NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site located on herbaceous hillslope on electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-5

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Festuca rubra*	50	Y	FACU
2. *Solidago canadensis*	30	Y	FACU
3. *Juncus tenuis*	10	N	FAC
4. *Monarda clinopodia*	5	N	FACU
5. *Achillea millefolium*	5	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:

- No 1 - Rapid Test for Hydrophytic Vegetation
- No 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-5

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/3	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-6

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.656011 Long: -76.051279 Datum: NAD83 (2011)

Soil Map Unit Name: WeC2: Wellsboro channery silt loam, 8 to 15 percent slopes, eroded NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Wetland abutting perennial stream within floodplain. It is located within electric ROW.

Wetland ID: W004A; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:
Wetland hydrology drains to stream.

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

Sampling Point: TS-6

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	50	Y	FACW
2. *Symphyotrichum prenanthoides*	25	Y	FAC
3. *Juncus effusus*	15	N	FACW
4. *Solidago rugosa*	10	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-6

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	90	7.5YR 5/6	10	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 10/21/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-7

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None (flat) Slope (%): 0-2%

Subregion (LRR or MLRA): LRR R Lat: 41.656023 Long: -76.051263 Datum: NAD83 (2011)

Soil Map Unit Name: WeC2: Wellsboro channery silt loam, 8 to 15 percent slopes, eroded NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site located in forested portion of floodplain of a perennial stream. It is located within electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-7

Tree Stratum Plot size: 30 ft radius	Absolute % Cover	Dominant Species?	Indicator Status
1. *Betula lenta*	40	Y	FACU
2. *Prunus serotina*	25	Y	FACU
3.			
4.			
5.			
6.			
7.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Sapling/Shrub Stratum Plot size: 15 ft radius			
1. *Betula papyrifera*	15	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum Plot size: 5 ft radius			
1. *Solidago rugosa*	20	Y	FAC
2. *Galium aparine*	10	Y	FACU
3. *Festuca rubra*	10	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Woody Vine Stratum Plot size: 30 ft radius			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.67% (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:

- No 1 - Rapid Test for Hydrophytic Vegetation
- No 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-7

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

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

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/22/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-10

Investigator(s): LEM, JMF Section, Township, Range: Auburn Township

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.651210 Long: -76.050018 Datum: NAD83 (2011)

Soil Map Unit Name: VcC2 - Volusia channery silt loam, 8 to 15 percent slopes, eroded NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W006 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland abutting PER stream within floodplain. It is located within electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐	No ☑	Depth (inches):
Water Table Present?	Yes ☐	No ☑	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 12

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:
Wetland hydrology drains to stream through drainage patterns. Saturation was observed in soil, but not the water table.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-10

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	90	Y	FACW
2. Carex lurida	10	N	OBL
3. Juncus effusus	5	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	80	10YR 5/8	20	C	M,PL	Loam/Clayey	Sand present.

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/22/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-11

Investigator(s): LEM, JMF Section, Township, Range: Auburn Township

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.651181 Long: -76.049830 Datum: NAD83 (2011)

Soil Map Unit Name: VcC2 - Volusia channery silt loam, 8 to 15 percent slopes, eroded NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
TS abutting PEM wetland within floodplain. It is located within electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-11

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Festuca rubra	45	Y	FACU
2. Euthamia graminifolia	20	Y	FAC
3. Solidago rugosa	10	N	FAC
4. Phalaris arundinacea	10	N	FACW
5. Juncus effusus	5	N	FACW
6. Ranunculus abortivus	5	N	FACW
7. Taraxacum officinale	5	N	FACU
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/3	90	10YR 5/6	10	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-12

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.650277 Long: -76.044147 Datum: NAD83 (2011)

Soil Map Unit Name: BfC2 - Bath flaggy loam, 12 to 20 percent slopes, moderately eroded NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W007 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Isolated wetland is abutting an ROW access road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-12

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	25	Y	FACW
2. Echinochloa crus-galli	20	Y	FAC
3. Juncus tenuis	20	Y	FAC
4. Epilobium coloratum	15	N	FACW
5. Typha angustifolia	10	N	OBL
6. Bidens aristosa	10	N	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/1	90	10YR 5/6	10	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal of rock hit 10” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-13

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None (flat) Slope (%): 10-25%

Subregion (LRR or MLRA): LRR N Lat: 41.649972 Long: -76.044355 Datum: NAD83 (2011)

Soil Map Unit Name: BfC2 - Bath flaggy loam, 12 to 20 percent slopes, moderately eroded NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
TS located adjacent to PEM wetland on hillslope within electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-13

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Dactylis glomerata	50	Y	FACU
2. Euthamia graminifolia	15	N	FAC
3. Solidago rugosa	15	N	FAC
4. Lotus corniculatus	10	N	FACU
5. Plantago lanceolata	10	N	UPL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: TS-13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/4	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-14

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR N Lat: 41.638258 Long: -76.039054 Datum: NAD83 (2011)

Soil Map Unit Name: VfC - Volusia flaggy silt loam, 8 to 15 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W008 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland located on herbaceous hillslope within electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-14

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Scirpus cyperinus	80	Y	FACW
2. Agrimonia parviflora	15	N	FACW
3. Solidago rugosa	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation within wetland is partially mowed.

SOIL

Sampling Point: TS-14

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/1	95	10YR 5/6	5	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal of rock hit at 13" below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna County Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-15

Investigator(s): LEM, JMF Section, Township, Range: Auburn Township

Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): None (flat) Slope (%): 0-2%

Subregion (LRR or MLRA): _____ Lat: 41.638956 Long: -76.039426 Datum: NAD83 (2011)

Soil Map Unit Name: MhD - Mardin channery silt loam, 8 to 25 percent slopes, rubbly NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)
Test site located adjacent to PEM wetlands on toe of slope within electric ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐	No ☑	Depth (inches): _____
Water Table Present?	Yes ☐	No ☑	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ☐	No ☑	Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-15

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Rubus flagellaris	50	Y	FACU
2. Solidago canadensis	15	N	FACU
3. Achillea millefolium	10	N	FACU
4. Dactylis glomerata	10	N	FACU
5. Poa pratensis	10	N	FACU
6. Fragaria virginiana	5	N	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-15

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of rock hit 8” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-16

Investigator(s): LEM, JMF Section, Township, Range: Auburn Twp.

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.640001 Long: -76.039865 Datum: NAD83 (2011)

Soil Map Unit Name: VfB - Volusia flaggy silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W009 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland located in slight hillslope and floodplain within electric ROW. It is abutting a PER stream. It continues out of boundary.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☑ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 3
Water Table Present?	Yes ☐	No ☑	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 8

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Wetland contributes hydrology to stream through drainage patterns. Saturation was observed in the soil profile; a water table was not. Surface water located in microdepressions throughout wetland. Common duckweed located within surface water puddles.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-16

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Juncus effusus	45	Y	OBL
2. Carex lurida	25	Y	OBL
3. Holcus lanatus	15	N	FACU
4. Solidago rugosa	10	N	FAC
5. Solidago gigantea	5	N	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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	70.0	x 1 =	70
FACW species	5.0	x 2 =	10
FAC species	10.0	x 3 =	30
FACU species	15.0	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	100.0 (A)		170 (B)

Prevalence Index = B/A = 1.7

Hydrophytic Vegetation Indicators:

Yes 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

Yes 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-16

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	90	7.5YR 5/8	10	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-17

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Summit Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR R Lat: 41.629726 Long: -76.035631 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W010 (PEM)

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland complex located on herbaceous hill top on electric ROW. It is adjacent to quarry/stone manufacturing plant.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-17

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Poa pratensis	30	Y	FACU
2. Juncus effusus	25	Y	OBL
3. Scirpus cyperinus	5	N	OBL
4. Carex lurida	2	N	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	62 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	32.0	x 1 =	32
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	30.0	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	62.0 (A)		152 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

Yes 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is partially mowed.

SOIL

Sampling Point: TS-17

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	97	7.5YR 5/6	3	C	PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal of rock hit at 12” below grade.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-18

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.628837 Long: -76.035182 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)

TS located adjacent to PEM wetlands on hillslope within electric ROW. It is adjacent to quarry/stone manufacturing facility.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

TS located in slight depression.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-18

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Festuca rubra	50	Y	FACU
2. Phalaris arundinacea	40	Y	FACW
3. Glechoma hederacea	5	N	FACU
4. Lotus corniculatus	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-18

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/4	100		100			Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of rock hit 5” below grade

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-19

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.628353 Long: -76.035335 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W011 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland complex located within electric ROW and on quarry/stone manufacturing facility. It is adjacent to access road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-19

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	45	Y	FACW
2. Poa pratensis	30	Y	FACU
3. Juncus effusus	20	Y	FACW
4. Galium boreale	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-19

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/2	95	7.5YR 5/4	5	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal of gravel hit 10” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-20

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.627349 Long: -76.034647 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

TS located within electric ROW and on quarry/stone manufacturing facility. It is adjacent to access road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

TS located in a slight depression.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-20

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	55	Y	FACW
2. Cornus amomum	15	N	FACW
3. Solidago gigantea	15	N	FACW
4. Galium boreale	5	N	FAC
5. Cirsium arvense	5	N	FACU
6. Viburnum dentatum	5	N	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-20

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/3	98	10YR 5/4	2	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of gravel hit 7" below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-21

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.625568 Long: -76.034013 Datum: NAD83 (2011)

Soil Map Unit Name: VcB NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?**	**Yes ☑ No ☐**
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID:	W012 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐		

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland located within a constructed ditch abutting access roads. It is located on an electric ROW and in a quarry/stone manufacturing facility.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Wetland drains to culvert under dirt access road.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-21

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phragmites australis	100	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-21

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	90	10YR 5/8	10	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Soils are mostly comprised of clay.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-22

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None (flat) Slope (%): 25-50%

Subregion (LRR or MLRA): LRR R Lat: 41.625205 Long: -76.033989 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)

TS located within electric ROW and on quarry/stone manufacturing facility. It is adjacent INT stream and PEM wetlands.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-22

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Elaeagnus umbellata	20	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Lolium pratense	35	Y	UPL
2. Festuca rubra	30	Y	FACU
3. Phalaris arundinacea	15	N	FACW
4. Artemisia vulgaris	10	N	UPL
5. Dipsacus fullonum	5	N	FACU
6. Daucus carota	5	N	UPL
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-22

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 4/2	60					Loam/Clayey	
	10YR 4/4	40						Mixed matrix present.

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of gravel hit 9” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-23

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.625113 Long: -76.034109 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?**	Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐		
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID:	W013 (PEM)

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland complex located within electric ROW and on quarry/stone manufacturing facility. It is adjacent to INT stream. Rip rap is located in some areas within the wetlands.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-23

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	90	Y	FACW
2. Juncus effusus	5	N	OBL
3. Dipsacus fullonum	5	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-23

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	96	10YR 5/6	4	C		Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-24

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.624824 Long: -76.033433 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W014 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland complex located within electric ROW and on quarry/stone manufacturing facility. It is adjacent to access road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 0.5
Water Table Present?	Yes ☑	No ☐	Depth (inches): 14
Saturation Present? (includes capillary fringe)	Yes ☐	No ☑	Depth (inches): 10

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Surface water located in drainage patterns. Saturation and water table observed below grade.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-24

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Carex sp.	50	Y	FACW
2. Juncus effusus	40	Y	OBL
3. Holcus lanatus	10	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

All of vegetation is disturbed due to mowing. Therefore, inforescense of Carex sp. missing, and was assigned FACW due to wetland presence.

SOIL

Sampling Point: TS-24

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	90	10YR 5/6	10	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal of gravel hit 10” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-25

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.623047 Long: -76.033320 Datum: NAD83 (2011)

Soil Map Unit Name: VcB - Volusia channery silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W015 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Isolated wetland located within electric ROW extends out of boundary.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 0.75

Water Table Present? Yes ☐ No ☑ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): ____

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:
Wetland drains downslope out of boundary.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-25

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	75	Y	FACW
2. Solidago rugosa	15	N	FAC
3. Cirsium arvense	5	N	FACU
4. Juncus effusus	5	N	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is disturbed due to mowing.

SOIL

Sampling Point: TS-25

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	90	10YR 5/6	10	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-26

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None (flat) Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.622657 Long: -76.032926 Datum: NAD83 (2011)

Soil Map Unit Name: LfC - Lordstown flaggy silt loam, 8 to 15 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
TS located within electric ROW and adjacent to PEM wetlands.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-26

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Elaeagnus umbellata	5	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
	5 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Solidago canadensis	25	Y	FACU
2. Festuca rubra	25	Y	FACU
3. Rubus allegheniensis	15	N	FACU
4. Rosa multiflora	10	N	FACU
5. Artemisia vulgaris	10	N	UPL
6. Lonicera japonica	10	N	FACU
7. Juncus effusus	5	N	OBL
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-26

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/2	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal hit of rock hit 9” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-27

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 25-50%

Subregion (LRR or MLRA): LRR R Lat: 41.620181 Long: -76.031576 Datum: NAD83 (2011)

Soil Map Unit Name: VfC - Volusia flaggy silt loam, 8 to 15 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W016 (PEM)

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland located within electric ROW and a ditch. It is adjacent to paved road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 0.5

Water Table Present? Yes ☐ No ☑ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): ____

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:
Surface water located in ditch within wetland.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-27

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	80	Y	FACW
2. Scirpus cyperinus	10	N	OBL
3. Juncus effusus	10	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-27

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	95	7.5YR 5/6	5	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/23/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-28

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None (flat) Slope (%): 25-50%

Subregion (LRR or MLRA): LRR R Lat: 41.620061 Long: -76.031604 Datum: NAD83 (2011)

Soil Map Unit Name: VfC - Volusia flaggy silt loam, 8 to 15 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
TS located within electric ROW and is adjacent to paved road and PEM wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: TS-28

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Poa pratensis	25	Y	FACU
2. Dactylis glomerata	20	Y	FACU
3. Plantago lanceolata	15	Y	FACU
4. Festuca rubra	15	Y	FACU
5. Lotus corniculatus	10	N	FACU
6. Trifolium repens	10	N	FACU
7. Fragaria virginiana	5	N	FACU
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is disturbed due to mowing.

SOIL

Sampling Point: TS-28

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of gravel hit 4" below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/24/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-29

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.617397 Long: -76.028750 Datum: NAD83 (2011)

Soil Map Unit Name: LbD - Lackawanna channery loam, 8 to 25 percent slopes, rubbly NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	
Wetland Hydrology Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

TS located on herbaceous hillslope within electric ROW. It is adjacent to a vegetated access road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

TS located in a depression.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-29

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	80	Y	FAC
2. Artemisia vulgaris	10	N	UPL
3. Solanum carolinense	5	N	FACU
4. Solidago rugosa	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-29

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of gravel hit 10” below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/24/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-30

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.614740 Long: -76.023438 Datum: NAD83 (2011)

Soil Map Unit Name: UnB - Unadilla silt loam, 3 to 8 percent slopes NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W017 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland complex located within vegetated access road. It is adjacent to an INT stream.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-30

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Typha angustifolia	75	Y	OBL
2. Microstegium vimineum	15	N	FAC
3. Juncus effusus	10	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is disturbed due to mowing.

SOIL

Sampling Point: TS-30

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	85	10YR 5/8	15	C	M,PL	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Soils are mostly comprised of clay.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Co. Sampling Date: 10/24/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-31

Investigator(s): LEM, JMF Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.614312 Long: -76.023410 Datum: NAD83 (2011)

Soil Map Unit Name: UnB NWI classification: None

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
TS located on vegetated access road bed within forest. It is adjacent to PEM wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-31

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	20	Y	FACU
2. Betula papyrifera	15	Y	FACU
3.			
4.			
5.			
6.			
7.			
	35	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Fagus grandifolia	25	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	40	Y	FAC
2. Solidago rugosa	5	N	FAC
3. Rosa multiflora	5	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-31

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 5/4	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal of gravel hit 9" below surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/28/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-32

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.602890 Long: -76.025530 Datum: NAD83 (2011)

Soil Map Unit Name: VxB - Volusia channery silt loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W018 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland complex located on hillside near roadway and previously disturbed open field.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-32

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Juncus effusus	50	Y	OBL
2. Poa palustris	20	Y	FACW
3. Scirpus atrovirens	15	N	OBL
4. Anthoxanthum odoratum	10	N	FACU
5. Carex lurida	5	N	OBL
6. Microstegium vimineum	5	N	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-32

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	95	7.5YR 4/6	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/28/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-33

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.603700 Long: -76.025403 Datum: NAD83 (2011)

Soil Map Unit Name: VxB - Volusia channery silt loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland sample point located in maintained open field

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-33

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Anthoxanthum odoratum	40	Y	FACU
2. Securigera varia	30	Y	UPL
3. Poa pratensis	10	N	FACU
4. Glechoma hederacea	10	N	FACU
5. Cirsium arvense	5	N	FACU
6. Lolium perenne	5	N	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-33

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/4	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/28/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-34

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.605229 Long: -76.025424 Datum: NAD83 (2011)

Soil Map Unit Name: VxB - Volusia channery silt loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W019 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland located in cleared field. Seep is present within the wetland

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-34

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Poa palustris	35	Y	FACW
2. Typha latifolia	30	Y	OBL
3. Phalaris arundinacea	10	N	FACW
4. Mentha spicata	10	N	FACW
5. Impatiens capensis	3	N	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	88 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Some barren ground due to tractor ruts

SOIL

Sampling Point: TS-34

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					Loam/Clayey	
2-8	10YR 5/2	95	5YR 4/6	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 8

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/28/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-35

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.605519 Long: -76.025249 Datum: NAD83 (2011)

Soil Map Unit Name: NWI classification:

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland test site locate on cleared hillslope

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-35

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Poa pratensis	50	Y	FACU
2. Anthoxanthum odoratum	20	Y	FACU
3. Lolium perenne	18	N	FACU
4. Glechoma hederacea	10	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	98 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-35

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-36

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.599410 Long: -76.026587 Datum: NAD83 (2011)

Soil Map Unit Name: MxB - Morris channery loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W020 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland complex located in depression abutting lake

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 2

Water Table Present? Yes ☐ No ☑ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): ____

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:
Up to two inches of surface water present in the wetland.

VEGETATION – Use scientific names of plants. Sampling Point: TS-36

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	70	Y	FACW
2. Typha latifolia	15	N	OBL
3. Impatiens capensis	10	N	FACW
4. Epilobium coloratum	5	N	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-36

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 5/1	100					Loam/Clayey	
2-16	2.5Y 5/2	90	7.5YR 5/6	10	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-37

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.599404 Long: -76.026583 Datum: NAD83 (2011)

Soil Map Unit Name: MxB - Morris channery loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)

Upland test site located on slightly elevate area that is abutting a lake.test site is surrounded by the wetland W020 complex

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-37

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Elaeagnus umbellata	20	Y	UPL
2. Rubus allegheniensis	15	Y	FACU
3. Rosa multiflora	5	N	FACU
4.			
5.			
6.			
7.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Solidago canadensis	60	Y	FACU
2. Phalaris arundinacea	10	N	FACW
3. Glechoma hederacea	10	N	FACU
4. Erigeron annuus	8	N	FACU
5. Poa pratensis	5	N	FACU
6. Solidago rugosa	5	N	FAC
7. Toxicodendron radicans	5	N	FAC
8.			
9.			
10.			
11.			
12.			
	103 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-37

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/4	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-38

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.597361 Long: -76.027892 Datum: NAD83 (2011)

Soil Map Unit Name: MfC - Mardin flaggy silt loam, 8 to 15 percent 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W021 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland located on hillside near off-roading trail

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: TS-38

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	45	Y	FACW
2. Juncus effusus	25	Y	OBL
3. Scirpus cyperinus	15	N	OBL
4. Impatiens capensis	5	N	FACW
5. Carex lurida	5	N	OBL
6. Microstegium vimineum	5	N	FAC
7. Cirsium arvense	3	N	FACU
8.			
9.			
10.			
11.			
12.			
	103 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-38

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	100					Loam/Clayey	
3-16	10YR 5/2	95	7.5YR 4/6	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-39

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.596832 Long: -76.028298 Datum: NAD83 (2011)

Soil Map Unit Name: MfC - Mardin flaggy silt loam, 8 to 15 percent 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☑	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐	No ☑	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ☐	No ☑	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-39

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Viburnum recognitum	30	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Poa pratensis	40	Y	FACU
2. Solidago canadensis	30	Y	FACU
3. Anthoxanthum odoratum	10	N	FACU
4. Microstegium vimineum	10	N	FAC
5. Erigeron annuus	5	N	FACU
6. Solidago rugosa	5	N	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☑

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-39

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-40

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Township

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.593989 Long: -76.030065 Datum: NAD83 (2011)

Soil Map Unit Name: VxD - Volusia channery silt loam, 8 to 25 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W022 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland located on hillside on power line right of way

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-40

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Rosa multiflora	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Poa palustris	35	Y	FACW
2. Juncus effusus	30	Y	OBL
3. Scirpus cyperinus	15	N	OBL
4. Solidago rugosa	10	N	FAC
5. Bidens frondosa	5	N	FACW
6. Rumex crispus	5	N	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-40

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	95	7.5YR 4/6	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-41

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.592507 Long: -76.030844 Datum: NAD83 (2011)

Soil Map Unit Name: VxB - Volusia channery silt loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W022 (PUB)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)

PUB wetland part of wetland W022 complex located on depression on power line right of way

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☑ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 16
Water Table Present?	Yes ☑	No ☐	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 0

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Surface water reaches up to 16 inches deep saturation and water table present to the surface.

VEGETATION – Use scientific names of plants.

Sampling Point: TS-41

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Yes Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ☑ **No** ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Year round inundation does not allow for vegetation growth within the PUB wetland

SOIL

Sampling Point: TS-41

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Muck	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☑ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☑ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6

Hydric Soil Present? Yes ☑ No ☐

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-42

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.591618 Long: -76.031661 Datum: NAD83 (2011)

Soil Map Unit Name: McC: Mardin channery silt loam, 8 to 15 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland test site located on hillslope above PEM PUB complex

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-42

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	30	Y	FACU
2. *Anthoxanthum odoratum*	25	Y	FACU
3. *Securigera varia*	20	Y	UPL
4. *Solidago rugosa*	15	N	FAC
5. *Erigeron annuus*	5	N	FACU
6. *Solidago canadensis*	0	N	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-42

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/4	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-43

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.588474 Long: -76.033674 Datum: NAD83 (2011)

Soil Map Unit Name: Hm: Holly silt loam NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
PEM wetland located in depression on power line right of way. Some areas of the wetland were recently mowed

Wetland ID: W023; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:
Up to an inch of surface water present

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

Sampling Point: TS-43

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Juncus effusus*	50	Y	OBL
2. *Euthamia graminifolia*	20	Y	FAC
3. *Mentha spicata*	15	N	FACW
4. *Poa palustris*	5	N	FACW
5. *Onoclea sensibilis*	5	N	FACW
6. *Spiraea tomentosa*	5	N	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-43

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	90	5YR 4/6	10	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-44

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.587873 Long: -76.034101 Datum: NAD83 (2011)

Soil Map Unit Name: Hm: Holly silt loam NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland test site located in depression on stream floodplain. Area was recently mowed

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-44

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Solidago canadensis*	45	Y	FACU
2. *Poa pratensis*	30	Y	FACU
3. *Glechoma hederacea*	15	N	FACU
4. *Anthoxanthum odoratum*	5	N	FACU
5. *Toxicodendron radicans*	5	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:

- No 1 - Rapid Test for Hydrophytic Vegetation
- No 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-44

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-45

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.585268 Long: -76.035810 Datum: NAD83 (2011)

Soil Map Unit Name: VfB: Volusia flaggy silt loam, 3 to 8 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
PEM wetland located on hillside. Seep present in wetland

Wetland ID: W024; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-45

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	5	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft radius)			
1. *Microstegium vimineum*	40	Y	FAC
2. *Typha latifolia*	20	Y	OBL
3. *Solidago rugosa*	15	N	FAC
4. *Onoclea sensibilis*	10	N	FACW
5. *Carex lurida*	5	N	OBL
6. *Juncus effusus*	5	N	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-45

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	95	7.5YR 5/8	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-46

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.584982 Long: -76.035937 Datum: NAD83 (2011)

Soil Map Unit Name: VfB: Volusia flaggy silt loam, 3 to 8 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland test site in powerline ROW adjacent to W024.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-46

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft radius)			
1. *Microstegium vimineum*	70	Y	FAC
2. *Solidago canadensis*	15	N	FACU
3. *Glechoma hederacea*	10	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-46

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	95	7.5YR 4/6	5	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-47

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.580256 Long: -76.038787 Datum: NAD83 (2011)

Soil Map Unit Name: BaC: Bath channery silt loam, 8 to 15 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland sample point located on top of hill on leer line right of way

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-47

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	35	Y	FACU
2. *Andropogon virginicus*	30	Y	FACU
3. *Solidago canadensis*	15	N	FACU
4. *Anthoxanthum odoratum*	10	N	FACU
5. *Securigera varia*	5	N	UPL
6. *Erigeron annuus*	5	N	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-47

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

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

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-48

Investigator(s): FDD SMK Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.579074 Long: -76.039473 Datum: NAD83 (2011)

Soil Map Unit Name: VxB - Volusia channery silt loam, 0 to 8 percent slopes, rubbly NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W025 (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland located on hillslope right of way

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-48

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	70	Y	FAC
2. Scirpus cyperinus	20	N	OBL
3. Solidago canadensis	10	N	FACU
4. Cirsium arvense	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-48

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/2	95	7.5YR 4/6	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

Hydric Soil Present? Yes ☑ No ☐

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-49

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.578830 Long: -76.039571 Datum: NAD83 (2011)

Soil Map Unit Name: BaC: Bath channery silt loam, 8 to 15 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland test site in powerline ROW near wetland W025.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-49

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft radius)			
1. *Solidago canadensis*	60	Y	FACU
2. *Solidago rugosa*	20	Y	FAC
3. *Microstegium vimineum*	10	N	FAC
4. *Asclepias syriaca*	10	N	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-49

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 4/4	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 4

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 10/29/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-50

Investigator(s): FDD SMK Section, Township, Range: Washington Twp

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.575862 Long: -76.041677 Datum: NAD83 (2011)

Soil Map Unit Name: UnC: Unadilla silt loam, 8 to 15 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland sample point in powerline ROW on hillside near road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

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

Sampling Point: TS-50

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	10	Y	FACU
2. *Rubus allegheniensis*	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft radius)			
1. *Microstegium vimineum*	50	Y	FAC
2. *Solidago canadensis*	20	Y	FACU
3. *Apocynum androsaemifolium*	15	N	UPL
4. *Solidago altissima*	10	N	FACU
5. *Glechoma hederacea*	0	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-50

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/6	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 05/19/2025

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-1C

Investigator(s): CMC Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.650557 Long: -76.045547 Datum: NAD83 (2011)

Soil Map Unit Name: MfD2: Mardin flaggy silt loam, 15 to 25 percent slopes, eroded NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site collected adjacent to a mowed agricultural hay field in a concave depression with saturation on historical imagery. Collection point did not pass.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:
Only only secondary indicator present.

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

Sampling Point: TS-1C

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Dactylis glomerata*	30	Y	FACU
2. *Poa pratensis*	30	Y	FACU
3. *Rubus idaeus*	10	N	FACU
4. *Solidago canadensis*	10	N	FACU
5. *Solidago rugosa*	7	N	FAC
6. *Rosa multiflora*	5	N	FACU
7. *Alliaria petiolata*	4	N	FACU
8. *Fragaria vesca*	4	N	UPL
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:

- No 1 - Rapid Test for Hydrophytic Vegetation
- No 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-1C

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/4	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 05/15/2025

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-1M

Investigator(s): MBP Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.653357 Long: -76.053273 Datum: NAD83 (2011)

Soil Map Unit Name: LsD: Lordstown, Oquaga, and Cadosia soils, 15 to 25 percent slopes, extremely bouldery NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site located in maintained electric utility ROW.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
NWI, aerial imagery, soil map, 305B, topo maps

Remarks:
No wetland hydrology indicators present.

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

Sampling Point: TS-1M

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Lonicera morrowii*	5	Y	FACU
2. *Rosa multiflora*	3	Y	FACU
3. *Elaeagnus umbellata*	3	Y	UPL
4.			
5.			
6.			
7.			
8.			
	11 = Total Cover		
50% of total cover: 5.5	20% of total cover: 2.2		
Herb Stratum (Plot size: 5 ft radius)			
1. *Solidago canadensis*	70	Y	FACU
2. *Festuca rubra*	20	N	FACU
3. *Solidago rugosa*	15	N	FAC
4. *Rubus idaeus*	10	N	FACU
5. *Rubus allegheniensis*	5	N	FACU
6. *Anthoxanthum odoratum*	3	N	FACU
7. *Acer rubrum*	2	N	FAC
8.			
9.			
10.			
11.			
12.			
	125 = Total Cover		
50% of total cover: 62.5	20% of total cover: 25		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:

- No 1 - Rapid Test for Hydrophytic Vegetation
- No 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Electric utility ROW.

SOIL

Sampling Point: TS-1M

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5YR 2.5/2	100					Loam/Clayey	Plentiful organic matter.
2-5	7.5YR 3/2	100					Loam/Clayey	
5-18	7.5YR 4/3	100					Loam/Clayey	Plentiful gravel.

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators present. Profile layer changes are very gradual.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 05/15/2025

Applicant/Owner: Auburn Twp State: PA Sampling Point: TS-2M

Investigator(s): MBP Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.652637 Long: -76.053165 Datum: NAD83 (2011)

Soil Map Unit Name: MoC2: Morris channery silt loam, 8 to 15 percent slopes, eroded NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site located in PEM wetland which runs down depression in electric utility ROW.

Wetland ID: W002B; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
NWI, aerial imagery, soil map, 305B, topo maps

Remarks:
Recent spring rains.

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

Sampling Point: TS-2M

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Spiraea alba*	10	Y	FACW
2. *Viburnum dentatum*	3	Y	FAC
3. *Rosa multiflora*	2	N	FACU
4.			
5.			
6.			
7.			
8.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft radius)			
1. *Juncus effusus*	40	Y	OBL
2. *Carex vulpinoidea*	35	Y	OBL
3. *Pycnanthemum virginianum*	10	N	FACW
4. *Solidago gigantea*	10	N	FACW
5. *Carex intumescens*	10	N	FACW
6. *Onoclea sensibilis*	10	N	FACW
7. *Spiraea alba*	5	N	FACW
8. *Symphyotrichum puniceum*	3	N	OBL
9.			
10.			
11.			
12.			
	123 = Total Cover		
50% of total cover: 61.5	20% of total cover: 24.6		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-2M

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 3/2	90	5YR 4/4	10	C	M	Mucky Loam/Clay	
3-18	7.5YR 4/1	75	7.5YR 4/6	25	C	M	Loam/Clayey	Manganese concentrations.

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 05/15/2025

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-3M

Investigator(s): MBP Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.652270 Long: -76.053121 Datum: NAD83 (2011)

Soil Map Unit Name: MsD: Morris channery silt loam, 8 to 25 percent slopes, extremely stony NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site located in maintained electric utility ROW near PEM wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
NWI, aerial imagery, soil map, 305B, topo maps

Remarks:
No wetland hydrology indicators present.

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

Sampling Point: TS-3M

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Euthamia graminifolia*	35	Y	FAC
2. *Festuca rubra*	35	Y	FACU
3. *Solidago canadensis*	25	Y	FACU
4. *Lotus corniculatus*	15	N	FACU
5. *Solidago gigantea*	10	N	FACW
6. *Anthoxanthum odoratum*	10	N	FACU
7. *Plantago lanceolata*	5	N	FACU
8. *Galium mollugo*	5	N	FACU
9. *Pycnanthemum tenuifolium*	3	N	FAC
10. *Ranunculus acris*	1	N	FAC
11.			
12.			
	144 = Total Cover		
50% of total cover: 72	20% of total cover: 28.8		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-3M

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 3/2	100					Loam/Clayey	
6-15	7.5YR 3/2	99	7.5YR 3/4	1	C	M	Loam/Clayey	
15-18	7.5YR 4/3	95	7.5YR 4/4	5	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Iron Monosulfide (A18)
___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
___ High Chroma Sands (S11) **(LRR K, L)**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR K, L)**
___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Red Parent Material (F21) **(outside MLRA 145)**
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators satisfied.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 05/15/2025

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-4M

Investigator(s): MBP Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-25%

Subregion (LRR or MLRA): LRR R Lat: 41.652195 Long: -76.051635 Datum: NAD83 (2011)

Soil Map Unit Name: MsD: Morris channery silt loam, 8 to 25 percent slopes, extremely stony NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Test site located in large PEM wetland traversing electric utility ROW.

Wetland ID: Wetland W006A; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
NWI, aerial imagery, soil map, 305B, topo maps

Remarks:

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

Sampling Point: TS-4M

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Juncus effusus*	45	Y	OBL
2. *Carex intumescens*	45	Y	FACW
3. *Agrostis gigantea*	20	N	FACW
4. *Onoclea sensibilis*	5	N	FACW
5. *Solidago gigantea*	5	N	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120 = Total Cover		
50% of total cover: 60	20% of total cover: 24		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-4M

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 2.5/2	100					Loam/Clayey	Saturated layer.
6-16	7.5YR 3/2	80	7.5YR 4/6	20	C	M,PL	Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-1T

Investigator(s): JET Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Drainage bottom Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.614972 Long: -76.026518 Datum: NAD83 (2011)

Soil Map Unit Name: Ph - Philo silt loam NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W001T (PEM)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Sampling point taken in drainage bottom in a broad open emergent wetland

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐	No ☑	Depth (inches):
Water Table Present?	Yes ☑	No ☐	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 4

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-1T

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	82	Y	FACW
2. Scirpus cyperinus	8	N	OBL
3. Typha latifolia	5	N	OBL
4. Carex bromoides	4	N	FACW
5. Epilobium coloratum	1	N	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-1T

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/3	95	7.5YR 4/6	5	C	M	Loam/Clayey	Soil 47°F
2-16	10YR 3/2	85	7.5YR 4/6	15	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming County Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-2T

Investigator(s): JET Section, Township, Range: Meshoppen Twp.

Landform (hillslope, terrace, etc.): Bottomland Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.614557 Long: -76.025542 Datum: NAD83 (2011)

Soil Map Unit Name: Ph - Philo silt loam NWI classification: -

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

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation No, Soil No, or Hydrology No 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 ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: W001T (PSS)
Wetland Hydrology Present?	Yes ☑	No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)
Sampling point located along edge of powerline ROW adjacent to shrubs.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): ____

Water Table Present? Yes ☑ No ☐ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): 0

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-2T

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	N	
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Alnus incana	40	Y	FACW
2. Salix discolor	12	Y	FACW
3.			
4.			
5.			
6.			
7.			
	52 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Carex bromoides	78	Y	FACW
2. Glyceria striata	10	N	OBL
3. Agrostis gigantea	8	N	FACW
4. Euthamia graminifolia	3	N	FAC
5. Juncus effusus	2	N	OBL
6. Epilobium coloratum	2	N	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	103 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.	0	N	
2.			
3.			
4.			
	0 = Total Cover		

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:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-2T

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	95	7.5YR 4/6	5	C	M	Loam/Clayey	Soil 47°F
4-16	10YR 3/2	80	7.5YR 4/6	20	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L, M**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)
- ☐

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☑ No ☐

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Cty Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-3T

Investigator(s): JET Section, Township, Range: Meshoppen Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.613325 Long: -76.024690 Datum: NAD83 (2011)

Soil Map Unit Name: UnB - Unadilla silt loam, 3 to 8 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sampling point located adjacent to utility pole in right of way.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:
None

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

Sampling Point: TS-3T

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
50% of total cover:		20% of total cover:	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Elaeagnus umbellata*	4	Y	UPL
2. *Lonicera morrowii*	3	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	7 = Total Cover		
50% of total cover:	3.5	20% of total cover:	1.4
Herb Stratum (Plot size: 5 ft radius)			
1. *Festuca rubra*	65	Y	FACU
2. *Solidago canadensis*	15	N	FACU
3. *Achillea millefolium*	7	N	FACU
4. *Rubus idaeus*	6	N	FACU
5. *Alliaria petiolata*	3	N	FACU
6. *Euthamia graminifolia*	3	N	FAC
7. *Galium mollugo*	2	N	FACU
8. *Rubus allegheniensis*	1	N	FACU
9. *Ranunculus acris*	1	N	FAC
10.			
11.			
12.			
	103 = Total Cover		
50% of total cover:	51.5	20% of total cover:	20.6
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-3T

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/4	100					Loam/Clayey	Soil temp 48°F

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Cty Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-4T

Investigator(s): JET Section, Township, Range: Meshoppen Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.615676 Long: -76.027087 Datum: NAD83 (2011)

Soil Map Unit Name: Ph: Philo silt loam NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sampling point located under power lines in right of way.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:
None

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

Sampling Point: TS-4T

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	20	Y	FACU
2. *Festuca rubra*	18	Y	FACU
3. *Solidago canadensis*	17	Y	FACU
4. *Solidago rugosa*	16	N	FAC
5. *Juncus tenuis*	12	N	FAC
6. *Euthamia graminifolia*	12	N	FAC
7. *Rubus allegheniensis*	2	N	FACU
8. *Scirpus cyperinus*	1	N	OBL
9. *Pimpinella saxifraga*	1	N	FACU
10. *Ranunculus acris*	1	N	FAC
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Hydrophytic Vegetation Indicators:

- No 1 - Rapid Test for Hydrophytic Vegetation
- No 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-4T

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/3	100					Loam/Clayey	
5-16	10YR 3/4	100					Loam/Clayey	Soil temp 48°F

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Wyoming Cty Sampling Date: 11/26/2024

Applicant/Owner: FE State: PA Sampling Point: TS-5T

Investigator(s): JET Section, Township, Range: Meshoppen Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.619753 Long: -76.031626 Datum: NAD83 (2011)

Soil Map Unit Name: VfC: Volusia flaggy silt loam, 8 to 15 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sampling point located in an emergent wetland that receives hydrology from a road culvert located uphill.

Wetland ID: W016B; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	1
Water Table Present?	Yes X	No ____	Depth (inches):	6
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	1

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

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

Remarks:

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

Sampling Point: TS-5T

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	91	Y	FACW
2. *Juncus effusus*	5	N	OBL
3. *Agrostis gigantea*	4	N	FACW
4. *Scirpus cyperinus*	2	N	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	102 = Total Cover		
50% of total cover: 51	20% of total cover: 20.4		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-5T

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	95	10YR 3/4	5	C	PL,M	Loam/Clayey	

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-6T

Investigator(s): JET Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Bottomland Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.651276 Long: -76.049538 Datum: NAD83 (2011)

Soil Map Unit Name: VcC2: Volusia channery silt loam, 8 to 15 percent slopes, eroded NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sampling point located in a very wet bottomland wetland.

Wetland ID: W006B; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 2
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

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

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

Remarks:

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

Sampling Point: TS-6T

Tree Stratum Plot size: 30 ft radius	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum Plot size: 15 ft radius			
1. *Salix discolor*	3	N	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	3 = Total Cover		
50% of total cover: 1.5	20% of total cover: 0.6		
Herb Stratum Plot size: 5 ft radius			
1. *Carex vulpinoidea*	70	Y	OBL
2. *Phalaris arundinacea*	16	N	FACW
3. *Juncus effusus*	15	N	OBL
4. *Carex lurida*	5	N	OBL
5. *Euthamia graminifolia*	3	N	FAC
6. *Solidago gigantea*	2	N	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	111 = Total Cover		
50% of total cover: 55.5	20% of total cover: 22.2		
Woody Vine Stratum Plot size: 30 ft radius			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Yes 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-6T

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	97	10YR 3/6	3	C	M	Mucky Loam/Clay	
6-16	10YR 3/2	90	10YR 3/6	10	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-7T

Investigator(s): JET Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.651173 Long: -76.048850 Datum: NAD83 (2011)

Soil Map Unit Name: VcA: Volusia channery silt loam, 0 to 3 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sampling point located just uphill from a nearby wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:
None

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

Sampling Point: TS-7T

Tree Stratum Plot size: 30 ft radius	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum Plot size: 15 ft radius			
1. *Rosa multiflora*	12	Y	FACU
2. *Lonicera morrowii*	8	Y	FACU
3. *Prunus pensylvanica*	1	N	FACU
4.			
5.			
6.			
7.			
8.			
	21 = Total Cover		
50% of total cover: 10.5	20% of total cover: 4.2		
Herb Stratum Plot size: 5 ft radius			
1. *Solidago canadensis*	60	Y	FACU
2. *Rubus allegheniensis*	8	N	FACU
3. *Rubus idaeus*	5	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	73 = Total Cover		
50% of total cover: 36.5	20% of total cover: 14.6		
Woody Vine Stratum Plot size: 30 ft radius			
1. *Vitis labrusca*	3	N	FACU
2.			
3.			
4.			
5.			
	3 = Total Cover		
50% of total cover: 1.5	20% of total cover: 0.6		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-7T

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

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/3	100					Loam/Clayey	Rocky dry soils

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

Project/Site: North Meshoppen – Mehoopany (NMM) #1 & 2 City/County: Susquehanna Cty Sampling Date: 11/26/2024

Applicant/Owner: FirstEnergy Service Company State: PA Sampling Point: TS-8T

Investigator(s): JET Section, Township, Range: Auburn Twp

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2-10%

Subregion (LRR or MLRA): LRR R Lat: 41.651262 Long: -76.049081 Datum: NAD83 (2011)

Soil Map Unit Name: VcA: Volusia channery silt loam, 0 to 3 percent slopes NWI classification: none

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

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

Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sampling point located in scrub shrub portion of larger PEM wetland that extends below.

Wetland ID: W006B; Cowardin Class: PSS

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 1

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

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

Remarks:

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

Sampling Point: TS-8T

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Cornus amomum*	25	Y	FACW
2. *Viburnum dentatum*	18	Y	FAC
3. *Lonicera morrowii*	6	N	FACU
4. *Rosa multiflora*	3	N	FACU
5.			
6.			
7.			
8.			
	52 = Total Cover		
50% of total cover: 26	20% of total cover: 10.4		
Herb Stratum (Plot size: 5 ft radius)			
1. None			
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: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

No 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TS-8T

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (Moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	90	10YR 3/6	10	C	PL,M	Loam/Clayey	Rock refusal @12", soil temp 48°

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ High Chroma Sands (S11) **(LRR K, L)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR K, L)**
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

APPENDIX D

STREAM DATA FORMS

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/21/24

STREAM ID: S001 **STREAM NAME:** Trib 29352 To Little Meshoppen Creek **TYPE:** Perennial

MUNICIPALITY: Auburn Twp **COUNTY:** Susquehanna **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream has abutting wetland outside of delineation boundary. It flows under an existing bridge.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 9.75ft

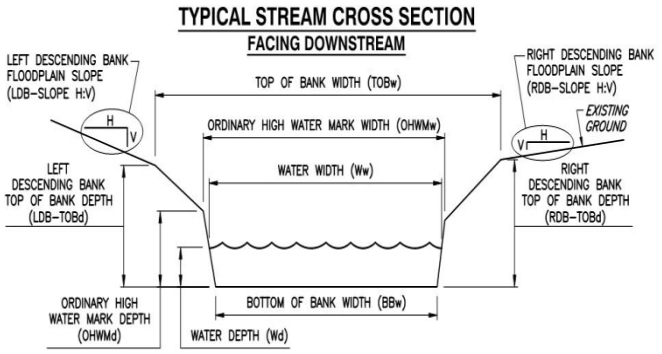
RDB-TOBd: 2.5ft **LDB-TOBd:** 2.5ft

Ordinary High Water Mark (OHWM)

OHWMw: 9 ft **OHWMd:** 1 ft

Wetted Channel

Ww: 9ft **Wd:** 0.5ft



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Abutting wetland floodplain

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe:

Fish or Herptiles observed? ☑ Yes ☐ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/21/24

STREAM ID: S002 **STREAM NAME:** Trib 29352 To Little Meshoppen Creek **TYPE:** Perennial

MUNICIPALITY: Auburn Twp **COUNTY:** Susquehanna **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream has abutting wetland outside of boundary. It flows within a electric ROW. It is adjacent to a paved road.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 12ft

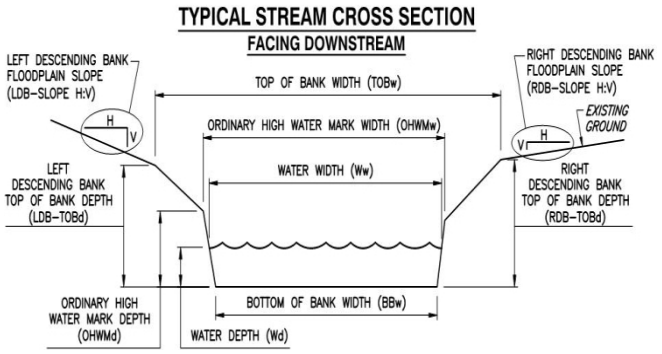
RDB-TOBd: 2.5ft **LDB-TOBd:** 2.5ft

Ordinary High Water Mark (OHWM)

OHWMw: 10 ft **OHWMd:** 1 ft

Wetted Channel

Ww: 8.5ft **Wd:** 10in



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☑ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Abutting wetland floodplain

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Caddisflies, mayflies, stoneflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/22/24

STREAM ID: S004 **STREAM NAME:** Trib 29352 To Little Meshoppen Creek **TYPE:** Perennial

MUNICIPALITY: Auburn Twp **COUNTY:** Susquehanna **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream has large abutting wetland located within the floodplain.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 3.25ft

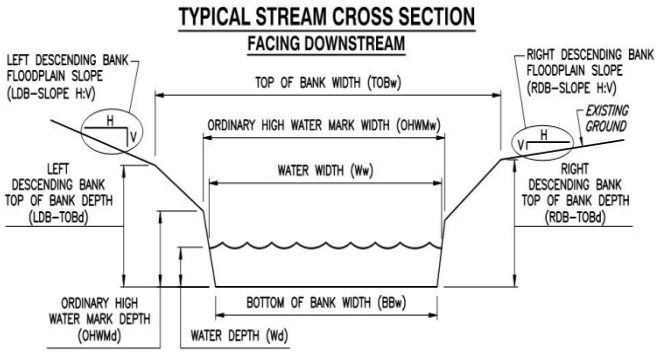
RDB-TOBd: 1.75ft **LDB-TOBd:** 1.75ft

Ordinary High Water Mark (OHWM)

OHWMw: 3.25 ft **OHWMd:** 0.75 ft

Wetted Channel

Ww: 3ft **Wd:** 4in



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Abutting large wetland

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Stoneflies, caddisflies, mayflies

Fish or Herptiles observed? ☑ Yes ☐ No
Describe: Fish

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/23/24

STREAM ID: S005 **STREAM NAME:** Trib 29351 To Little Meshoppen Creek **TYPE:** Perennial

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream is provided hydrology from abutting wetland. It is located within an electric ROW.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 2ft

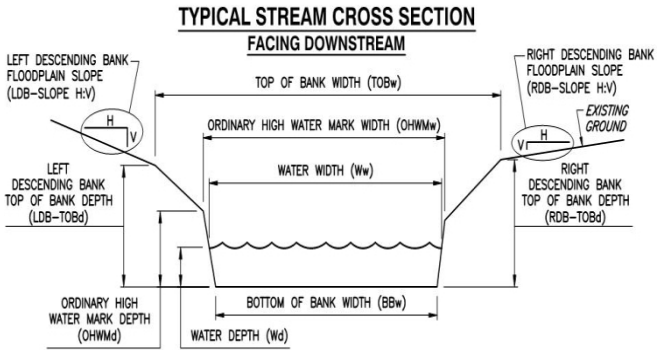
RDB-TOBd: 1ft **LDB-TOBd:** 1ft

Ordinary High Water Mark (OHWM)

OHWMw: 1.75 ft **OHWMd:** 0.5 ft

Wetted Channel

Ww: 1.5ft **Wd:** 4in



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe: N/A

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Abutting wetland with the floodplain

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Caddisflies, mayflies, stoneflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/23/24

STREAM ID: S006 **STREAM NAME:** UNT to Trib 29351 To Little Meshoppen Creek **TYPE:** Ephemeral

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream is located within electric ROW and flows into culvert under road. It is adjacent to dirt access roads.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 3.75ft

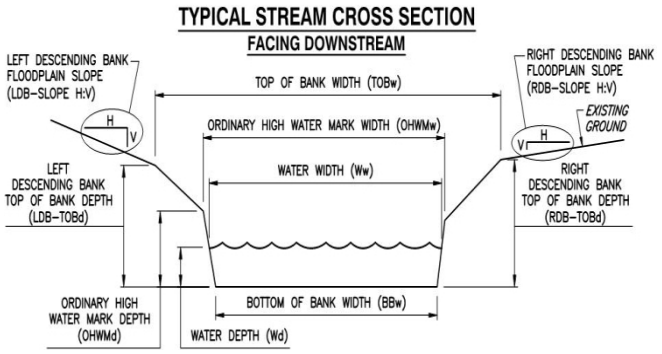
RDB-TOBd: 1.75ft **LDB-TOBd:** 1.75ft

Ordinary High Water Mark (OHWM)

OHWMw: 4 in **OHWMd:** 0.75 in

Wetted Channel

Ww: 0ft **Wd:** 0ft



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☑ Vegetation ☐ Artificial

Flow Characteristics:

☑ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☐ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe: N/A

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☐ Mixed-Use
☑ Industrial ☐ Mining ☑ Residential

Describe: Adjacent to lawn and quarry facility

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☐ Yes ☑ No
Describe:

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/23/24

STREAM ID: S007 **STREAM NAME:** UNT to Trib 29351 To Little Meshoppen Creek **TYPE:** Intermittent

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream originates from culvert outlet within a quarry/stone manufacturing facility.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 2.75ft

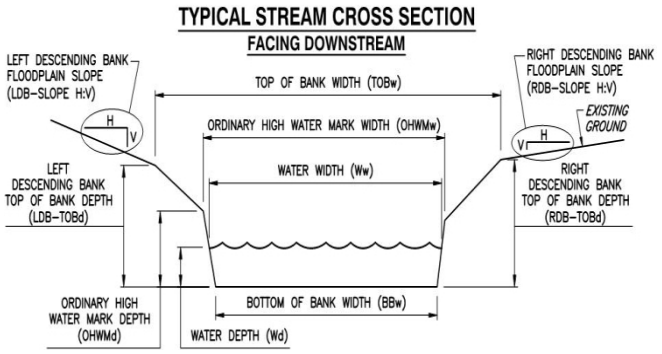
RDB-TOBd: 1.75ft **LDB-TOBd:** 1.75ft

Ordinary High Water Mark (OHWM)

OHWMw: 4 in **OHWMd:** 1 in

Wetted Channel

Ww: 0ft **Wd:** 0ft



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☑ Vegetation ☐ Artificial

Flow Characteristics:

☑ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☐ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks and sloughing banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☐ Mixed-Use
☑ Industrial ☐ Mining ☐ Residential

Describe: Quarry facility

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Caddisflies and mayflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/23/24

STREAM ID: S008 **STREAM NAME:** UNT to Trib 29358 To Meshoppen Creek **TYPE:** Intermittent

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream originates within wetland with seeps. It is located in an electric ROW.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 1ft

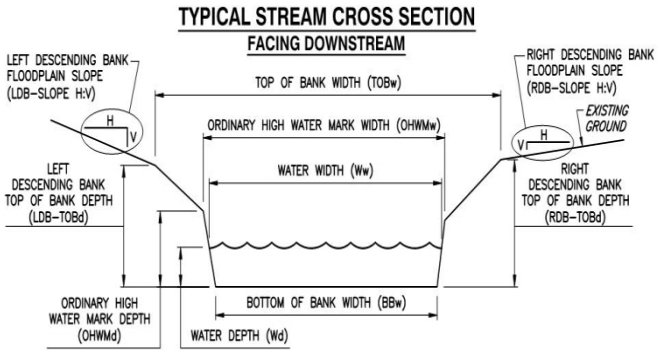
RDB-TOBd: 0.75ft **LDB-TOBd:** 0.75ft

Ordinary High Water Mark (OHWM)

OHWMw: 3 in **OHWMd:** 0.25 in

Wetted Channel

Ww: 0ft **Wd:** 0ft



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
Describe: Undercut banks and exposed root wads

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Abutting wetland

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☐ Yes ☑ No
Describe:

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/24/24

STREAM ID: S009 **STREAM NAME:** Trib 29358 To Meshoppen Creek **TYPE:** Perennial

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream is located within electric ROW. The stream has a strong perennial flow regime up and downstream of electric ROW boundary. Within the ROW, flow of stream is subsurface.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 13ft

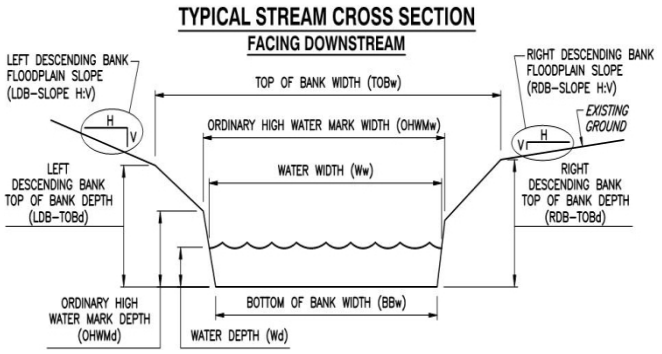
RDB-TOBd: 3ft **LDB-TOBd:** 3ft

Ordinary High Water Mark (OHWM)

OHWMw: 5.25 ft **OHWMd:** 6 in

Wetted Channel

Ww: 4.5ft **Wd:** 4in



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Sloughing banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Within ROW

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Caddisflies, mayflies, stoneflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/24/24

STREAM ID: S010 **STREAM NAME:** Meshoppen Creek **TYPE:** Intermittent

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** LEM, JMF

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream headcut is abutting access road. It drains into a perennial stream. The headwaters are located in a PEM wetland with seeps.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 1.75ft

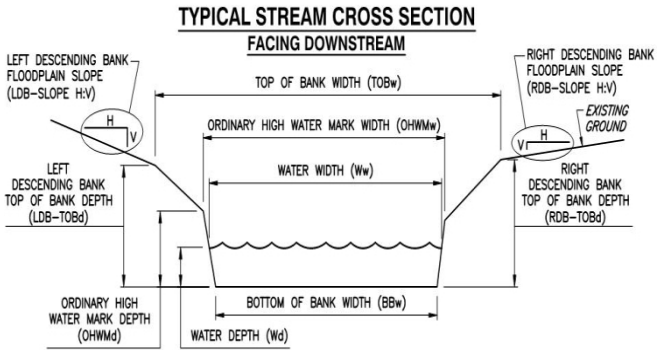
RDB-TOBd: 1ft **LDB-TOBd:** 1ft

Ordinary High Water Mark (OHWM)

OHWMw: 4 in **OHWMd:** 0.25 in

Wetted Channel

Ww: 0ft **Wd:** 0ft



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☑ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☑ Streambed is moist ☐ Standing water present ☐ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks, exposed root wads

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☐ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Wetland located in headwaters

Canopy Cover: 50 - 74%

Biological Characteristics:

Macroinvertebrates Observed? ☐ Yes ☑ No
Describe:

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/28/24

STREAM ID: S011 **STREAM NAME:** Meshoppen Creek **TYPE:** Perennial

MUNICIPALITY: Meshoppen Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD SMK

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Large stream in pipeline ROW just north of Pots Falls Rd.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 85

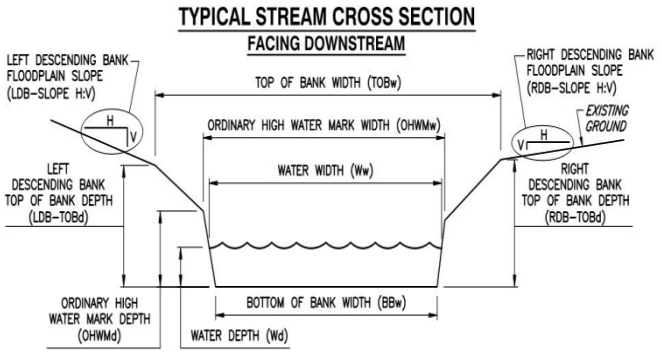
RDB-TOBd: 8ft **LDB-TOBd:** 8ft

Ordinary High Water Mark (OHWM)

OHWMw: 80 ft **OHWMd:** 7 ft

Wetted Channel

Ww: 75ft **Wd:** 2ft



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☑ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Power line right of way crosses stream

Canopy Cover: 25 - 49%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Caddisfkies, stoneflies, mayflies

Fish or Herptiles observed? ☑ Yes ☐ No
Describe: Fish

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/29/24

STREAM ID: S012 **STREAM NAME:** UNT to Trib 29249 Of Susquehanna River **TYPE:** Intermittent

MUNICIPALITY: Washington Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD SMK

WEATHER CONDITIONS: ☐ Sunny ☑ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream runs along the edge of W021 and into a culvert pipe.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 8

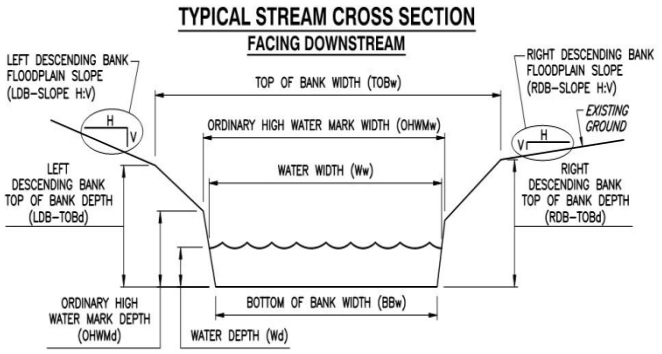
RDB-TOBd: 4ft **LDB-TOBd:** 4ft

Ordinary High Water Mark (OHWM)

OHWMw: 4 ft **OHWMd:** 2 ft

Wetted Channel

Ww: 0in **Wd:** 0in



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☑ Streambed is moist ☐ Standing water present ☐ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Power line right of way crosses stream

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☐ Yes ☑ No
Describe:

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/29/24

STREAM ID: S013 **STREAM NAME:** Trib 29249 Of Susquehanna River **TYPE:** Perennial

MUNICIPALITY: Washington Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD SMK

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream flows from woods and goes across pipeline ROW and wetland complex.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 12ft

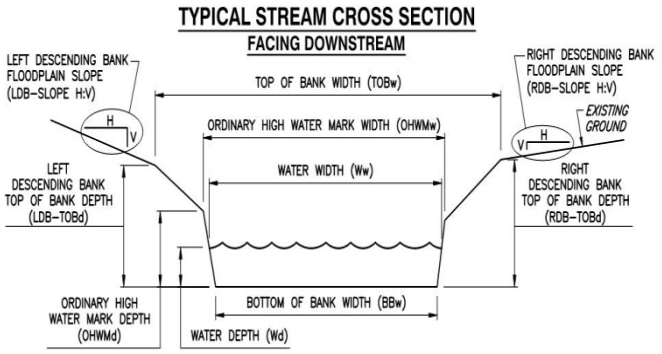
RDB-TOBd: 2.5ft **LDB-TOBd:** 2.5ft

Ordinary High Water Mark (OHWM)

OHWMw: 12 ft **OHWMd:** 4 ft

Wetted Channel

Ww: 1.5ft **Wd:** 3in



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☑ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☑ Standing water present ☐ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
Describe: Undercut banks, exposed roots

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Power line right of way crosses stream

Canopy Cover: 25 - 49%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Stoneflies, caddisflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/29/24

STREAM ID: S014 **STREAM NAME:** Trib 29248 To Susquehanna River **TYPE:** Perennial

MUNICIPALITY: Washington Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD SMK

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream enters pipeline ROW from woods, runs throughout ROW for about 1,200 feet, and flows back into woods. Stream has a backwater channel near the downstream end in the ROW.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 8

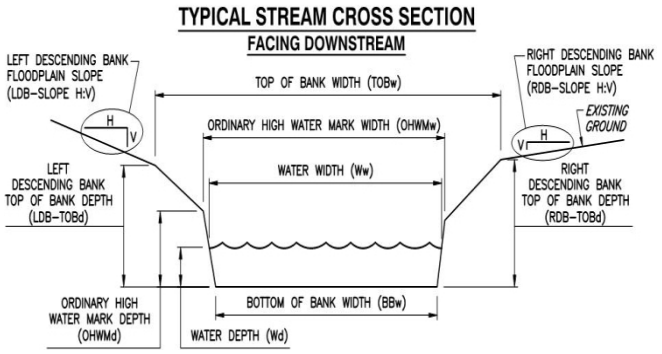
RDB-TOBd: 2.5ft **LDB-TOBd:** 2.5ft

Ordinary High Water Mark (OHWM)

OHWMw: 6 ft **OHWMd:** 1 ft

Wetted Channel

Ww: 1ft **Wd:** 1in



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☑ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks exposed roots

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Power line right of way crosses stream

Canopy Cover: 25 - 49%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Flatworms, caddisflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/29/24

STREAM ID: S015 **STREAM NAME:** UNT to Trib 29248 To Susquehanna River **TYPE:** Intermittent

MUNICIPALITY: Washington Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD SMK

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream flows from woods into powerline ROW and towards S014.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 4

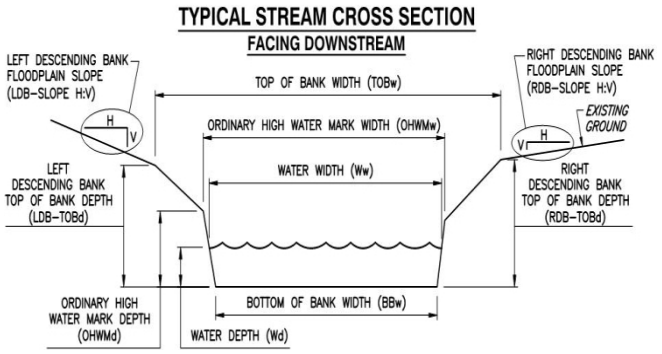
RDB-TOBd: 1.5ft **LDB-TOBd:** 1.5ft

Ordinary High Water Mark (OHWM)

OHWMw: 2 ft **OHWMd:** 8 in

Wetted Channel

Ww: 6in **Wd:** 1in



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☑ Standing water present ☐ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Power line right of way crosses stream

Canopy Cover: 0 - 24%

Biological Characteristics:

Macroinvertebrates Observed? ☐ Yes ☑ No
Describe:

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/29/24

STREAM ID: S016 **STREAM NAME:** UNT to Susquehanna River **TYPE:** Intermittent

MUNICIPALITY: Washington Twp **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD SMK

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream in center of pipeline ROW that starts and stops suddenly.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 9ft

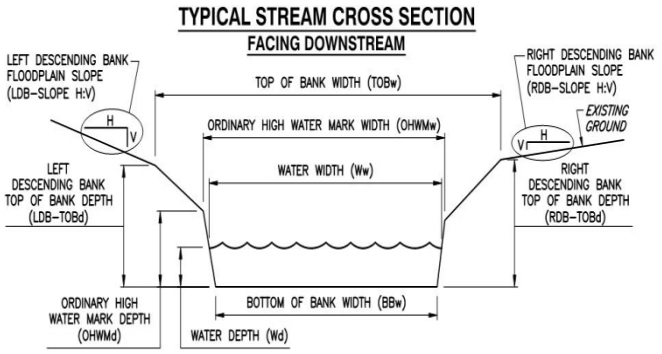
RDB-TOBd: 3ft **LDB-TOBd:** 3ft

Ordinary High Water Mark (OHWM)

OHWMw: 8 ft **OHWMd:** 2.5 ft

Wetted Channel

Ww: 1ft **Wd:** 2in



Primary Substrate:

☐ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☑ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
Describe: Undercut banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Power line right of way crosses stream

Canopy Cover: 50 - 74%

Biological Characteristics:

Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Caddisfkies, stoneflies

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 10/29/24

STREAM ID: S017 **STREAM NAME:** UNT to Susquehanna River **TYPE:** Intermittent

MUNICIPALITY: Meshoppen Township **COUNTY:** Wyoming **STATE:** PA **INVESTIGATORS:** FDD, SMK

WEATHER CONDITIONS: ☐ Sunny ☑ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
Stream gains bed and bank and flows down through AOI. The stream the crosses a road within the AOI then exits the AOI. Rip rap has been added to the channel

Hydrological Characteristics:

Tributary is Manipulated (Man-Altered)

Stream Channel Properties:

Top of Bank

TOBw: 7ft

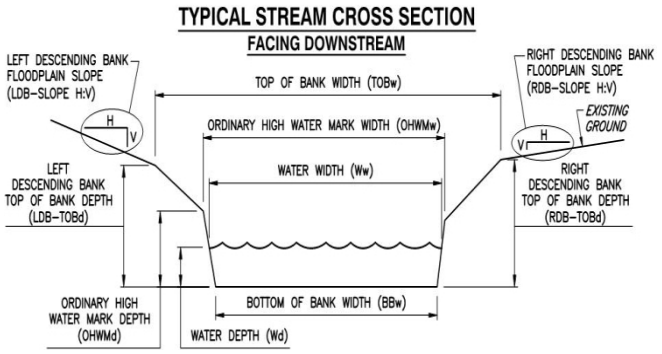
RDB-TOBd: 2ft **LDB-TOBd:** 2ft

Ordinary High Water Mark (OHWM)

OHWMw: 4.5 ft **OHWMd:** 1 ft

Wetted Channel

Ww: 6in **Wd:** 1in



Primary Substrate:

☐ Clay ☐ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☑ Boulder (>10in) ☐ Muck ☑ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
LDB: ☐ Slight ☐ Moderate ☑ Severe ☐ Very Severe
Describe: Undercut banks, exposed roots

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Powerline right of way surrounded by forested hillslope

Canopy Cover: 25 - 49%

Biological Characteristics:

Macroinvertebrates Observed? ☐ Yes ☑ No
Describe:

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

Pennsylvania Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 **DATE:** 05/15/25 **INVESTIGATORS:** MBP

COUNTY: Susquehanna **STATE:** PA **LOCATION:**

STREAM NAME: UNT to Trib 29352 To Little Meshoppen Creek **STREAM ID:** Stream 1C **FLOW CLASSIFICATION:** Intermittent

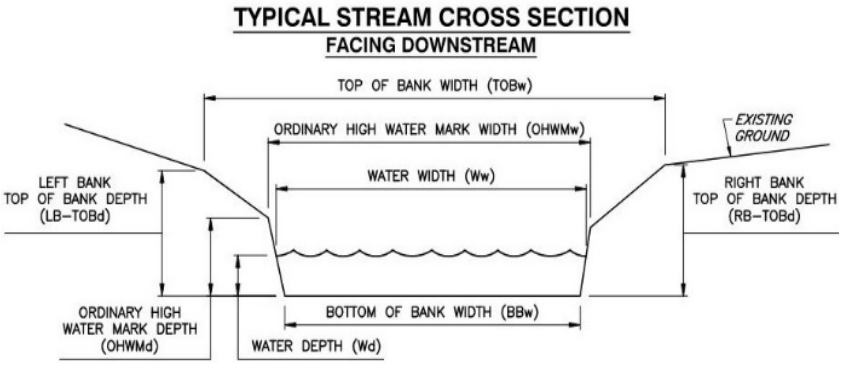
WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream flows across electric utility ROW. Stream has been dug out.

AVERAGE STREAM CHANNEL DIMENSIONS (ft)

TOBw: 6 **RB-TOBd:** 2 **LB-TOBd:** 2
OHWMw: 1 **OHWMd:** 0.2
Ww: 0.5 **Wd:** 0.1
BBw:



OHWM INDICATORS:

Geomorphic: ☑ Break in slope / defined bed & banks ☐ Shelving ☐ Bedforms (bar deposition / scour lines)
Sediment: ☐ Changes in soil (alluvial / hydric vs. colluvial / residual) ☐ Sorting ☐ Mudcracks
Vegetation: ☐ Absence of terrestrial vegetation ☐ Vegetation matted down or bent ☐ Exposed roots
☐ Hydrophytic emergent cover ☐ Periphyton / algae cover >10% ☐ Moss/lichen trim lines
☐ Change in type or density (Explain:)
Ancillary: ☐ Wrack / organic debris lines ☐ Leaf litter disturbed or washed away ☐ Water staining

PRIMARY SUBSTRATE (Check all >20%):

☑ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial ☐ Bedrock

FLOW CHARACTERISTICS:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

BANK EROSION:

Right Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Left Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe:

CANOPY COVER: ☑ 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

BIOLOGICAL CHARACTERISTICS:

Macroinvertebrates Observed? (If Yes, check below) ☐ Yes ☑ No

☐ Plecoptera (Stonefly) ☐ Ephemeroptera (Mayfly) ☐ Trichoptera (Caddisfly) ☐ Coleoptera (Aquatic Beetles)
☐ Diptera (True Fly) ☐ Decapoda (Crawfish) ☐ Gastropoda (Snails) ☐ Isopoda (Sowbugs)
☐ Megaloptera (Alderfly) ☐ Odonata (Dragonfly) ☐ Platyhelminthes (Flatworms)
☐ Other Taxa:

Fish or Herptiles observed? (If Yes, check below) ☐ Yes ☑ No
Describe:

Pennsylvania Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 **DATE:** 05/15/25 **INVESTIGATORS:** CMC, MBP

COUNTY: Susquehanna **STATE:** PA **LOCATION:**

STREAM NAME: UNT to Trib 29352 To Little Meshoppen Creek **STREAM ID:** Stream 2C **FLOW CLASSIFICATION:** Intermittent

WEATHER CONDITIONS: ☐ Sunny ☑ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

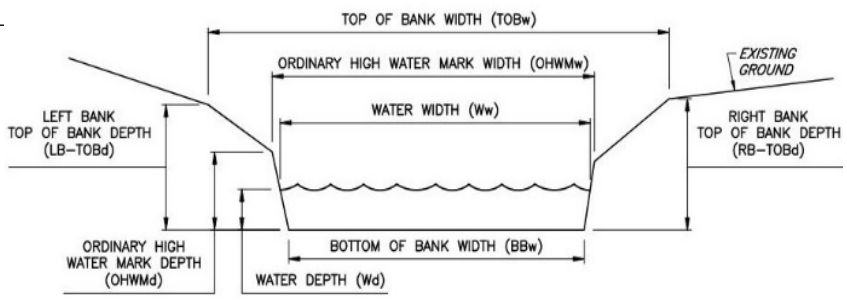
Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
Some rain showers over last several days. Stream parallels a swale which ends in the ROW. Stream channelizes significantly more at intersection of ROW and swale. Stream loses bed and banks partially down the slope.

AVERAGE STREAM CHANNEL DIMENSIONS (ft)

TOBw: 5 **RB-TOBd:** 2 **LB-TOBd:** 2
OHWMw: 1 **OHWMd:** 0.5
Ww: 0 **Wd:** 0
BBw: 2

TYPICAL STREAM CROSS SECTION
FACING DOWNSTREAM



OHWM INDICATORS:

Geomorphic: ☑ Break in slope / defined bed & banks ☑ Shelving ☐ Bedforms (bar deposition / scour lines)
Sediment: ☐ Changes in soil (alluvial / hydric vs. colluvial / residual) ☐ Sorting ☐ Mudcracks
Vegetation: ☑ Absence of terrestrial vegetation ☑ Vegetation matted down or bent ☐ Exposed roots
☑ Hydrophytic emergent cover ☐ Periphyton / algae cover >10% ☐ Moss/lichen trim lines
☐ Change in type or density (Explain:)
Ancillary: ☑ Wrack / organic debris lines ☑ Leaf litter disturbed or washed away ☐ Water staining

PRIMARY SUBSTRATE (Check all >20%):

☐ Clay ☑ Silt ☐ Sand ☐ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☑ Vegetation ☐ Artificial ☐ Bedrock

FLOW CHARACTERISTICS:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

BANK EROSION:

Right Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Left Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe:

CANOPY COVER: ☑ 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

BIOLOGICAL CHARACTERISTICS:

Macroinvertebrates Observed? (If Yes, check below) ☐ Yes ☑ No

☐ Plecoptera (Stonefly) ☐ Ephemeroptera (Mayfly) ☐ Trichoptera (Caddisfly) ☐ Coleoptera (Aquatic Beetles)
☐ Diptera (True Fly) ☐ Decapoda (Crawfish) ☐ Gastropoda (Snails) ☐ Isopoda (Sowbugs)
☐ Megaloptera (Alderfly) ☐ Odonata (Dragonfly) ☐ Platyhelminthes (Flatworms)
☐ Other Taxa:

Fish or Herptiles observed? (If Yes, check below) ☐ Yes ☑ No
Describe:

Pennsylvania Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 **DATE:** 05/15/25 **INVESTIGATORS:** MBP

COUNTY: Susquehanna **STATE:** PA **LOCATION:**

STREAM NAME: Trib 29352 To Little Meshoppen Creek **STREAM ID:** Stream 3C **FLOW CLASSIFICATION:** Perennial

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

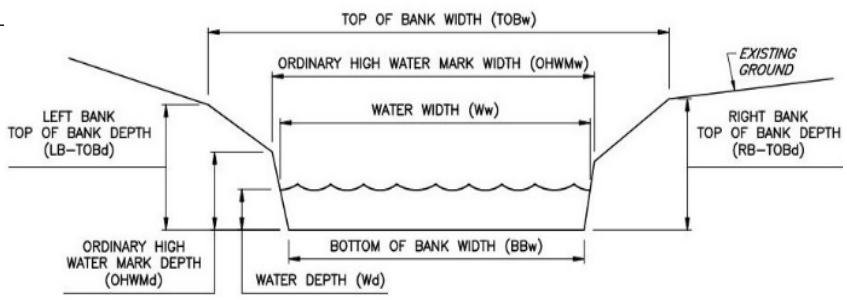
Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream flows from woods across electric utility ROW. Stream parallels PA-267.

AVERAGE STREAM CHANNEL DIMENSIONS (ft)

TOBw: 6 **RB-TOBd:** 6 **LB-TOBd:** 2
OHWMw: 4 **OHWMd:** 2
Ww: 3 **Wd:** 1
BBw:

TYPICAL STREAM CROSS SECTION
FACING DOWNSTREAM



OHWM INDICATORS:

Geomorphic: ☑ Break in slope / defined bed & banks ☐ Shelving ☐ Bedforms (bar deposition / scour lines)
Sediment: ☐ Changes in soil (alluvial / hydric vs. colluvial / residual) ☐ Sorting ☐ Mudcracks
Vegetation: ☐ Absence of terrestrial vegetation ☐ Vegetation matted down or bent ☐ Exposed roots
☐ Hydrophytic emergent cover ☐ Periphyton / algae cover >10% ☐ Moss/lichen trim lines
☐ Change in type or density (Explain:)
Ancillary: ☐ Wrack / organic debris lines ☐ Leaf litter disturbed or washed away ☐ Water staining

PRIMARY SUBSTRATE (Check all >20%):

☑ Clay ☑ Silt ☐ Sand ☐ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial ☐ Bedrock

FLOW CHARACTERISTICS:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

BANK EROSION:

Right Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Left Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe:

CANOPY COVER: ☑ 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

BIOLOGICAL CHARACTERISTICS:

Macroinvertebrates Observed? (If Yes, check below) ☐ Yes ☑ No

☐ Plecoptera (Stonefly) ☐ Ephemeroptera (Mayfly) ☐ Trichoptera (Caddisfly) ☐ Coleoptera (Aquatic Beetles)
☐ Diptera (True Fly) ☐ Decapoda (Crawfish) ☐ Gastropoda (Snails) ☐ Isopoda (Sowbugs)
☐ Megaloptera (Alderfly) ☐ Odonata (Dragonfly) ☐ Platyhelminthes (Flatworms)
☐ Other Taxa:

Fish or Herptiles observed? (If Yes, check below) ☐ Yes ☑ No
Describe:

Pennsylvania Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 **DATE:** 05/19/25 **INVESTIGATORS:** CMC

COUNTY: Susquehanna **STATE:** PA **LOCATION:**

STREAM NAME: UNT to Trib 29352 To Little Meshoppen Creek **STREAM ID:** Stream 4C **FLOW CLASSIFICATION:** Intermittent

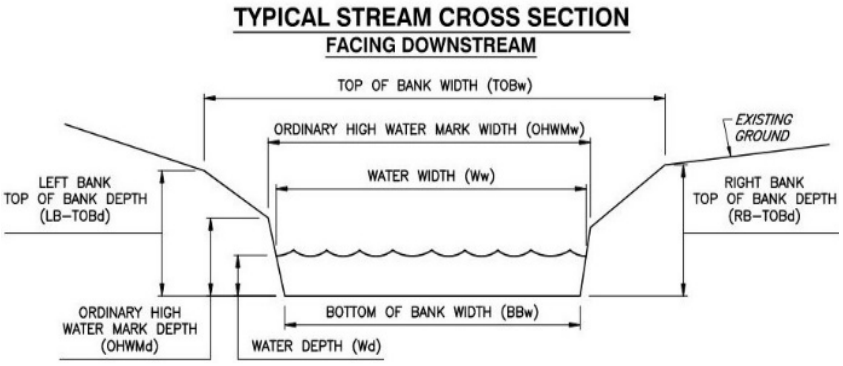
WEATHER CONDITIONS: ☐ Sunny ☑ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☐ Yes ☑ No ☐ Unknown

Remarks:
Stream orignates out of study area in large wetland. Stream is extremely mucky.

AVERAGE STREAM CHANNEL DIMENSIONS (ft)

TOBw: 24 **RB-TOBd:** 4 **LB-TOBd:** 4
OHWMw: 18 **OHWMd:** 3
Ww: 15 **Wd:** 3
BBw: 13



OHWM INDICATORS:

Geomorphic: ☐ Break in slope / defined bed & banks ☐ Shelving ☐ Bedforms (bar deposition / scour lines)
Sediment: ☐ Changes in soil (alluvial / hydric vs. colluvial / residual) ☐ Sorting ☐ Mudcracks
Vegetation: ☑ Absence of terrestrial vegetation ☐ Vegetation matted down or bent ☐ Exposed roots
☐ Hydrophytic emergent cover ☐ Periphyton / algae cover >10% ☑ Moss/lichen trim lines
☐ Change in type or density (Explain:)
Ancillary: ☐ Wrack / organic debris lines ☑ Leaf litter disturbed or washed away ☐ Water staining

PRIMARY SUBSTRATE (Check all >20%):

☐ Clay ☑ Silt ☐ Sand ☐ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☑ Muck ☐ Vegetation ☐ Artificial ☐ Bedrock

FLOW CHARACTERISTICS:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

BANK EROSION:

Right Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Left Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe:

CANOPY COVER: ☐ 0-25% ☑ 26-50% ☐ 51-75% ☐ 76-100%

BIOLOGICAL CHARACTERISTICS:

Macroinvertebrates Observed? (If Yes, check below) ☐ Yes ☑ No

☐ Plecoptera (Stonefly) ☐ Ephemeroptera (Mayfly) ☐ Trichoptera (Caddisfly) ☐ Coleoptera (Aquatic Beetles)
☐ Diptera (True Fly) ☐ Decapoda (Crawfish) ☐ Gastropoda (Snails) ☐ Isopoda (Sowbugs)
☐ Megaloptera (Alderfly) ☐ Odonata (Dragonfly) ☐ Platyhelminthes (Flatworms)
☐ Other Taxa:

Fish or Herptiles observed? (If Yes, check below) ☐ Yes ☑ No
Describe:

Pennsylvania Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 **DATE:** 05/15/25 **INVESTIGATORS:** MBP

COUNTY: Susquehanna **STATE:** PA **LOCATION:**

STREAM NAME: UNT to Trib 29352 To Little Meshoppen Creek **STREAM ID:** Stream 1M **FLOW CLASSIFICATION:** Intermittent

WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

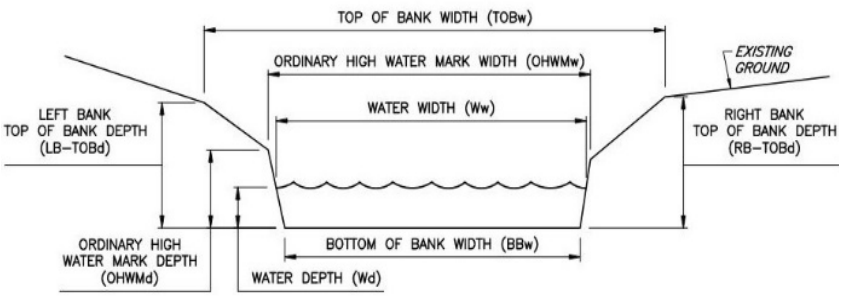
Has there been precipitation at the site within the past 5 days? ☐ Yes ☐ No ☑ Unknown

Remarks:
Stream flows from PEM wetland and drains into stream outside study area.

AVERAGE STREAM CHANNEL DIMENSIONS (ft)

TOBw: 3 **RB-TOBd:** 0.8 **LB-TOBd:** 0.8
OHWMw: 0.5 **OHWMd:** 0.1
Ww: **Wd:**
BBw:

TYPICAL STREAM CROSS SECTION
FACING DOWNSTREAM



OHWM INDICATORS:

Geomorphic: ☑ Break in slope / defined bed & banks ☐ Shelving ☐ Bedforms (bar deposition / scour lines)
Sediment: ☐ Changes in soil (alluvial / hydric vs. colluvial / residual) ☐ Sorting ☐ Mudcracks
Vegetation: ☐ Absence of terrestrial vegetation ☐ Vegetation matted down or bent ☐ Exposed roots
☐ Hydrophytic emergent cover ☐ Periphyton / algae cover >10% ☐ Moss/lichen trim lines
☐ Change in type or density (Explain:)
Ancillary: ☐ Wrack / organic debris lines ☐ Leaf litter disturbed or washed away ☐ Water staining

PRIMARY SUBSTRATE (Check all >20%):

☑ Clay ☑ Silt ☐ Sand ☐ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial ☐ Bedrock

FLOW CHARACTERISTICS:

☑ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☐ Flowing water present

BANK EROSION:

Right Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Left Bank Facing Downstream: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe:

CANOPY COVER: ☑ 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

BIOLOGICAL CHARACTERISTICS:

Macroinvertebrates Observed? (If Yes, check below) ☐ Yes ☑ No

☐ Plecoptera (Stonefly) ☐ Ephemeroptera (Mayfly) ☐ Trichoptera (Caddisfly) ☐ Coleoptera (Aquatic Beetles)
☐ Diptera (True Fly) ☐ Decapoda (Crawfish) ☐ Gastropoda (Snails) ☐ Isopoda (Sowbugs)
☐ Megaloptera (Alderfly) ☐ Odonata (Dragonfly) ☐ Platyhelminthes (Flatworms)
☐ Other Taxa:

Fish or Herptiles observed? (If Yes, check below) ☐ Yes ☑ No
Describe:

Stream Data Form

PROJECT #: 343-695 **PROJECT NAME:** North Meshoppen – Mehoopany (NMM) #1 & 2 **DATE:** 11/26/24

STREAM ID: S001T **STREAM NAME:** UNT to Meshoppen Creek **TYPE:** Intermittent

MUNICIPALITY: Meshoppen Twp **COUNTY:** _____ **STATE:** PA **INVESTIGATORS:** JET

WEATHER CONDITIONS: ☐ Sunny ☑ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
Stream flows into W001T and disperses.

Hydrological Characteristics:

Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 7ft

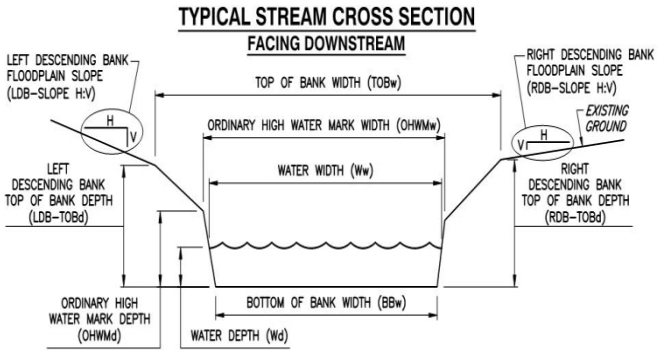
RDB-TOBd: 2ft **LDB-TOBd:** 2ft

Ordinary High Water Mark (OHWM)

OHWMw: 4 ft **OHWMd:** 1 ft

Wetted Channel

Ww: 1ft **Wd:** 2in



Primary Substrate:

☐ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: _____

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☑ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: _____

Canopy Cover: 50 - 74%

Biological Characteristics:

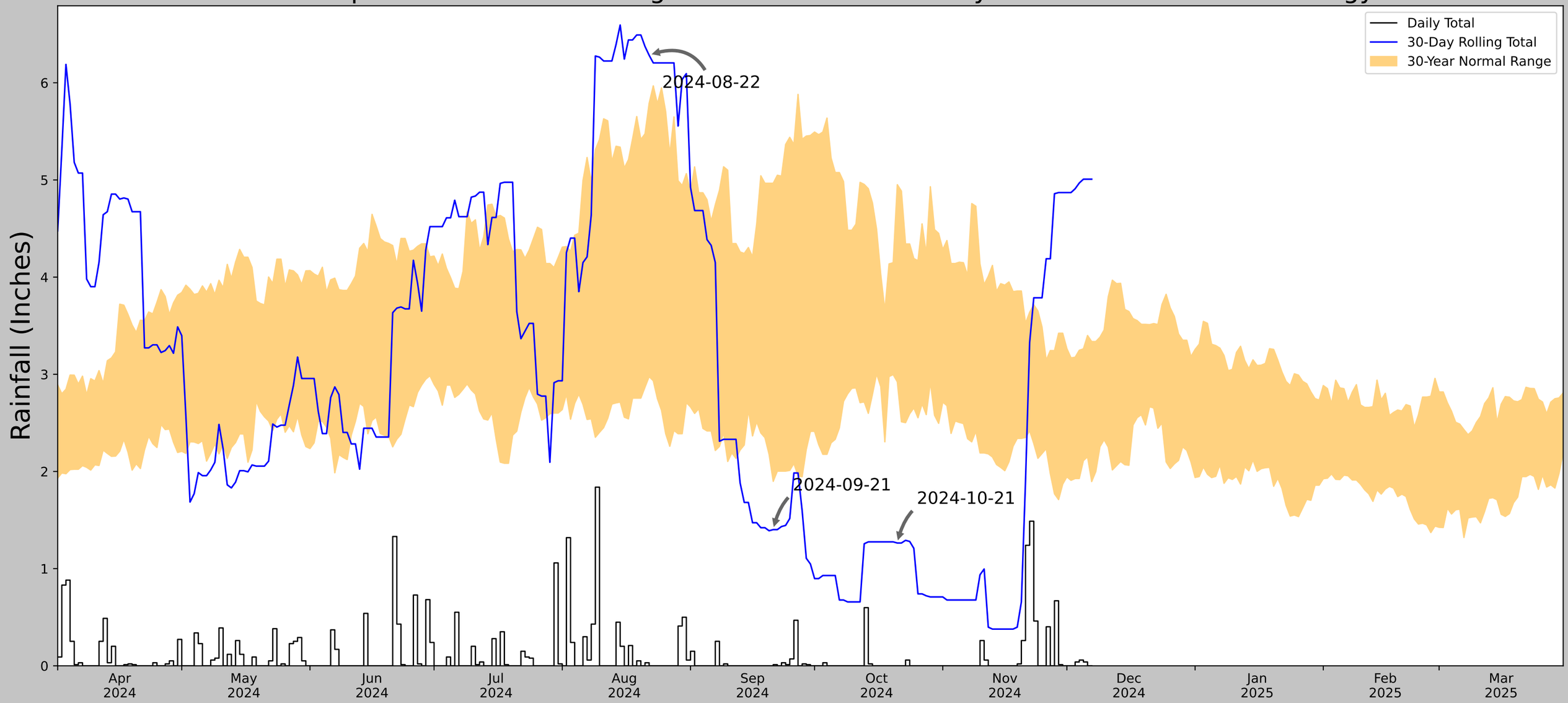
Macroinvertebrates Observed? ☐ Yes ☑ No
Describe: _____

Fish or Herptiles observed? ☐ Yes ☑ No
Describe: _____

APPENDIX E

ANTECEDENT PRECIPITATION TOOL ANALYSIS

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.60923, -76.02477
Observation Date	2024-10-21
Elevation (ft)	898.28
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-10-21	2.922441	4.951969	1.26378	Dry	1	3	3
2024-09-21	1.898032	4.966142	1.401575	Dry	1	2	2
2024-08-22	2.975591	5.78937	6.283465	Wet	3	1	3
Result							Drier than Normal - 8

US Army Corps of Engineers

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

ERDC

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
WILKES-BARRE/SCRANTON INTL AP	41.3336, -75.7228	951.116	24.639	52.836	12.389	11342	90
DURYEA 0.3 SE	41.3493, -75.7714	560.039	2.745	391.077	2.309	8	0
ARCHBALD 1.6 SW	41.4911, -75.5638	954.068	13.649	2.952	6.182	3	0

Exhibit 15

1. PROJECT INFORMATION

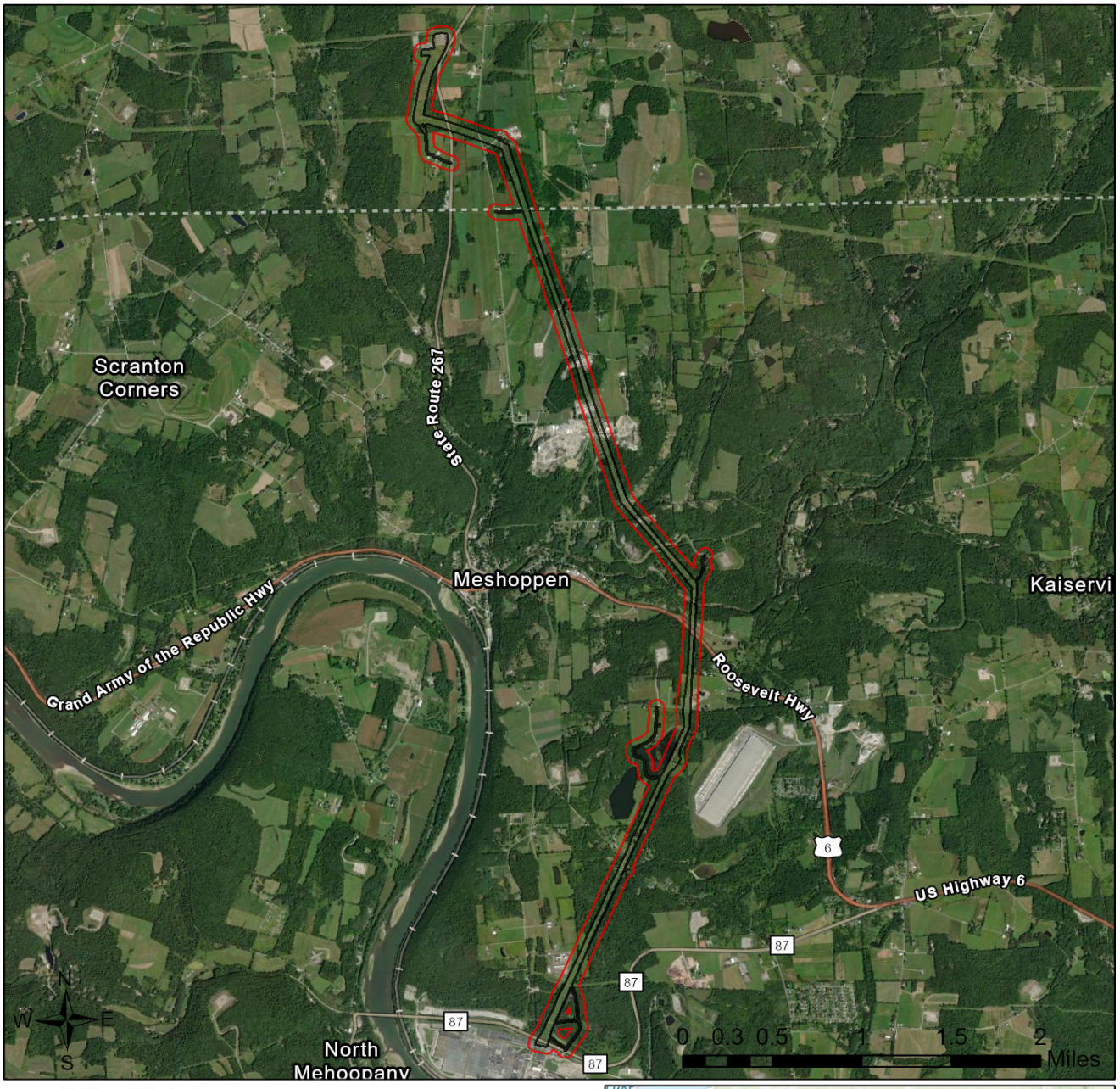
Project Name: **North Meshoppen – Mehoopany (#1 & #2) Rebuild Project**
Date of Review: **3/17/2025 03:39:09 PM**
Project Category: **Energy Storage, Production, and Transfer, Energy Transfer, Power/electric line - service, replace existing above/under-ground line**
Project Area: **172.70 acres**
County(s): **Susquehanna; Wyoming**
Township/Municipality(s): **Auburn Township; Meshoppen Township; Washington Township**
ZIP Code:
Quadrangle Name(s): **AUBURN CENTER; MESHOPPEN**
Watersheds HUC 8: **Upper Susquehanna-Tunkhannock**
Watersheds HUC 12: **Little Mehoopany Creek-Lower Susquehanna River; Little Meshoppen Creek-Meshoppen Creek**
Decimal Degrees: **41.650392, -76.045973**
Degrees Minutes Seconds: **41° 39' 1.4099" N, 76° 2' 45.5022" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

North Meshoppen – Mehoopany (#1 & #2) Rebuild Project

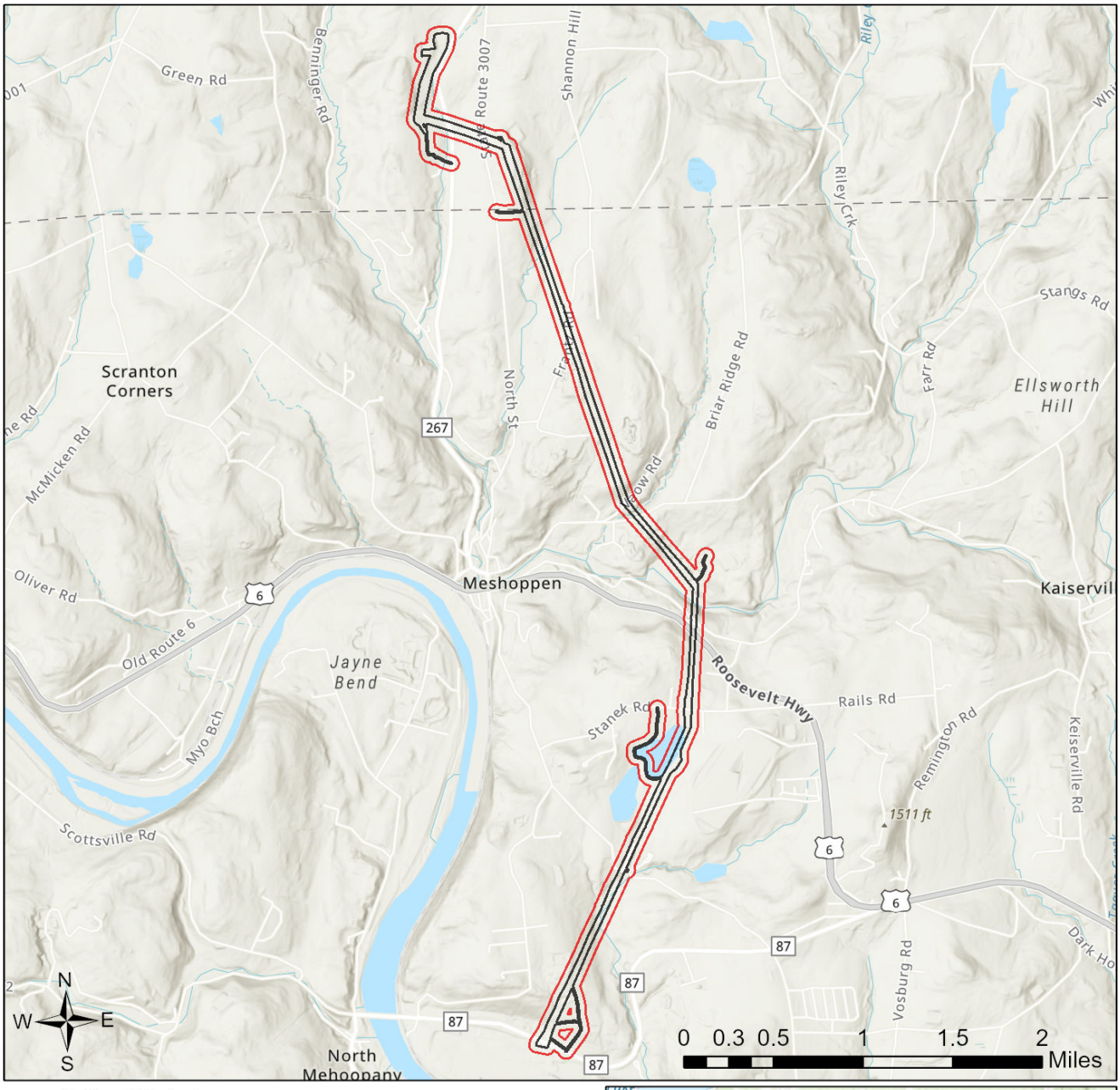


Buffered Project Boundary

Project Boundary

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

North Meshoppen – Mehoopany (#1 & #2) Rebuild Project



Buffered Project Boundary

Project Boundary

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA,

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

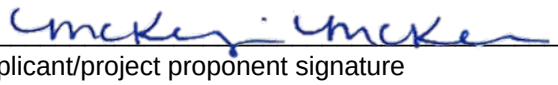
PA Game Commission
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: McKenzie McKeon
Company/Business Name: Civil & Environmental Consultants, Inc .
Address: 700 Cherrington Parkway
City, State, Zip: Moon Township, PA 15108
Phone: (412) 429-2324 Fax: ( ) _____
Email: mmckeon@cecinc.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.



applicant/project proponent signature

3/17/2025
date

Exhibit 16

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

November 20, 2024

Sent Via PA-SHARE

RE: ER Project # 2024PR05375.001, North Meshoppen - Mehoopany Line Rebuild, Department of Environmental Protection, Meshoppen Township, Wyoming County

Dear Submitter,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Above Ground Resources
No Above Ground Concerns - Environmental Review - No Effect - Above Ground

Our policy regarding above ground survey for projects involving transmission pole replacement, as outlined in Guidelines for Projects with Potential Visual Effects (May 2024), is the replacement poles will not have a greater visual effect than the existing infrastructure. Based on the information received and available within our files, it is our opinion that the proposed project will have No Effect on above ground historic properties, including historic buildings, districts, structures, and/or objects, should they exist. Should the scope of the project change and/or should you be made aware of historic property concerns, you will need to reinitiate consultation with our office using PA-SHARE.

For questions concerning above ground resources, please contact John Gardosik at jgardosik@pa.gov.

Archaeological Resources
More Information Requested - New Attachment

There are no previously recorded archaeological sites within the proposed LOD. However, there are areas that have a high probability for containing pre-contact archaeological sites that have never been subject to an archaeological survey. It is unclear what the proposed impacts are in these locations and our office requests project plans that depict new pole locations and other proposed impacts to determine if an archaeological survey is necessary for this project. Please use this request for more information to submit project plans that depict all proposed ground disturbing activities including, but not limited to pole locations, staging areas, and roads. Please submit the requested materials to the PA SHPO through PA-SHARE using the link under SHPO Requests More Information on the Response screen.

For questions concerning archaeological resources, please contact Casey Hanson at chanson@pa.gov.

Sincerely,

Barbara Frederick
Environmental Review Division Manager

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

February 25, 2025

Sent Via PA-SHARE

RE: ER Project # 2024PR05375.002, North Meshoppen - Mehoopany Line Rebuild, Department of Environmental Protection, Meshoppen Township, Wyoming County

Dear Submitter,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Archaeological Resources
No Archaeological Concerns - Environmental Review - No Effect - Archaeological

Based on the information received and available in our files, in our opinion, the proposed project should have No Effect on archaeological resources. Should the scope of the project be amended to include additional ground-disturbing activity and/or should you be made aware of historic property concerns regarding archaeological resources, you will need to reinitiate consultation with our office using PA-SHARE.

For questions concerning archaeological resources, please contact Justin McKeel at jusmckeel@pa.gov.

Sincerely,

Barbara Frederick
Environmental Review Division Manager

Exhibit 17

MAIT Exhibit 17

Landowners Crossed by the Project & Entities the Project is Seeking Approval From

Known persons, corporations and other entities of record owning property within the proposed right-of-way:

Amy A. French
9 East French Lane
Meshoppen, PA 18630

Arthur & Betsy Cole
835 State Route 3007
Meshoppen, PA 18630

Charles Jr & Patricia Mccarthy
4698 State Route 3004
Meshoppen, PA 18630

Chris & Jamie Cole
130 Cole Farm Road
Meshoppen, PA 18630

Christopher Dodge & Elvira Brown
PO Box 15
Tunkhannock, PA 18657

Donald Sr & Deborah Remington
19 East French Lane
Meshoppen, PA 18630

Douglas & Barbara Davis
324 Frantz Road
Meshoppen, PA 18630

Eben Howard Harvey III
PO Box 94
Meshoppen, PA 18630

Edward J. Manning
11 Vosburg Road
Tunkhannock, PA 18657

FR Mehoopany Property Holding, LP
PO Box 599
Cincinnati, OH 45201

Hilary J. Poepperling
210 Vaow Road
Meshoppen, PA 18630

Jeffrey & Mary Frantz
566 Frantz Road
Meshoppen, PA 18630

Jeffrey L. Schultz
5551 Chestnut Street
Emmaus, PA 18049

Jolene Hillard
661 Stanek Road
Meshoppen, PA 18630

Kenneth & Connie Teel
831 State Route 4015
Meshoppen, PA 18630

Luke, Roger, Gina & Wayne Sherwood
619 State Route 4015
Meshoppen, PA 18630

Matthew & Jessica Miller
582 Briar Ridge Road
Meshoppen, PA 18630

Michael Houser & Rick Hiduk
156 Dietrich Lane
Meshoppen, PA 18630

Paula C. Foux
355 Heaven Bound Lane
Meshoppen, PA 18630

Procter & Gamble
PO Box 599
Cincinnati, OH 45201

MAIT Exhibit 17

Landowners Crossed by the Project & Entities the Project is Seeking Approval From

Rabbit Hollow
69 Putnam Street
Tunkhannock, PA 18657

Raymond & Joyce Ryce
316 Frantz Road
Meshoppen, PA 18630

Ryan & Amanda Ruark
512 Briar Ridge Road
Meshoppen, PA 18630

Saint Joachims Parrish
PO Box 186
Tunkhannock, PA 18657

Stewart & Melissa Manning
38 Mason Road
Tunkhannock, PA 18657

UGI Manning LLC
604 Technology Drive
Suite 130
Canonsburg, PA 15317

William M. Ruark
524 State Route 4015
Meshoppen, PA 18630

WLR Family Limited Partnership
524 State Route 4015
Meshoppen, PA 18630

Wood Duck Acres
910 Gay Street
Phoenixville, PA 19460

Entities the Project is Seeking Approval From:

Agency/Address	**Permit/Clearance Required**	**Status**
Susquehanna Country Conservation District 89 Industrial Dr, Montrose, PA 18801	General NPDES Permit approval needed based on PA Chapter 102 Requirements.	Submitted 3/2/2026
Wyoming Country Conservation District 6052 Sr 6, Tunkhannock, Pennsylvania 18657	General NPDES Permit approval needed based on PA Chapter 102 Requirements.	Submitted 3/2/2026
Susquehanna Country Conservation District 89 Industrial Dr, Montrose, PA 18801	Federal Section 404 of the Clean Water Act General Permit (GP)	Submitted 3/3/2026
Pennsylvania Department of Environmental Protection 2 Public Square Wilkes-Barre, PA 18701	Federal Section 404 of the Clean Water Act General Permit (GP) and PA Chapter 105.12(a) Waiver 3	Formal Submittal Not Required. Waiver(s) Reviewed as Part of GP Review.

CONFIDENTIAL

ATTACHMENT A

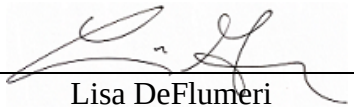
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

LETTER OF NOTIFICATION OF MID-ATLANTIC INTERSTATETRANSMISSION, LLC FOR APPROVAL OF THE MEHOOPANY-NORTH MESHOPPEN NO. 1 AND NO. 2 115 KILOVOLT TRANSMISSION LINES REBUILD PROJECT IN AUBURN TOWNSHIP, SUSQUEHANNA COUNTY AND WASHINGTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA	:	**Docket No. _____**

VERIFICATION

I, Lisa DeFlumeri, state that I am a Transmission Siting Specialist for the FirstEnergy Service Company; that I am authorized to make this Verification on behalf of Mid-Atlantic Interstate Transmission LLC ("MAIT") and that the facts set forth in the Letter of Notification are true and correct to the best of my knowledge, information and belief. I understand that the statements herein are subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

April 24, 2026



Lisa DeFlumeri