
Garrett P. Lent

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

June 4, 2026

VIA ELECTRONIC FILING

Matthew Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, Second Floor
Harrisburg, PA 17120

Re: Letter of Notification of Mid-Atlantic Interstate Transmission, LLC for the Johnstown–Seward 230 Kilovolt Transmission Line Rebuild Project in St. Clair Township in Westmoreland County, East Wheatfield Township in Indiana County, and Jackson Township in Cambria 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 Johnstown-Seward 230 Kilovolt (“kV”) Transmission Line Rebuild Project (“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 or a Notice of Filing have been served upon the parties as required by 52 Pa. Code § 57.74 and noted on the attached Certificate of Service.

MAIT requests Commission review and approval of the LON on or before July 16, 2026, Public Meeting, in order to allow construction to commence on/about August 1, 2026, in accordance with scheduled outages.

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

Matthew Homsher, Secretary
June 4, 2026
Page 2

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Garrett P. Lent". The signature is written in a cursive style with a large initial "G" and "L".

Garrett P. Lent

GPL/sll
Enclosures

cc: Deb Backer - Bureau of Technical Utility Services (*via UPS*)
Jordan Van Order - Bureau of Technical Utility Services (*via UPS*)

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

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

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

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

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

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

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

Pennsylvania Department of
Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Pennsylvania Game Commission
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue
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

Historic Preservation Bureau
400 North Street, Suite 2
Harrisburg, PA 17120

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

Department of the Army
U.S. Army Corps of Engineers, Pittsburgh
District
Pittsburgh District Office
1000 Liberty Avenue, Suite 2200
Pittsburgh, Pennsylvania 15222-4186

Rob Cronauer, District Manager
Westmoreland County Conservation District
218 Donohoe Road
Greensburg, PA 15601

Doug Beri Jr., Executive Director
Indiana County Conservation District
435 Hamill Road
Indiana, PA 15701

John Dryzal, District Manager
Cambria County Conservation District
401 Candlelight Drive, Suite 229
Ebensburg, PA 15931

Sean Kertes, Chair
Westmoreland County Commissioner
2 N. Main Street, Suite 101
Greensburg, PA 15601

Ted Kopas, Secretary
Westmoreland County Commissioner
2 N. Main Street Suite 101
Greensburg, PA 15601

Dennis Rudnik
St. Clair Township Chairman
550 Seward Street
Seward, PA 15954

Michael Koch
St. Clair Township
550 Seward Street
Seward, PA 15954

R. Michael Keith
Indiana County Commissioner
825 Philadelphia Street
Indiana, PA 15701

Byron G. Stauffer, Jr., Director
Indiana County Planning
801 Water Street
Indiana, PA 15701

Kenneth Umholtz
East Wheatfield Township Chairman
17 Prides Way
Seward, PA 15954

Jerry Lynch
East Wheatfield Township Supervisor
102 Pinecrest Drive
Seward, PA 15954

Scott Hunty
Cambria County President
200 South Center Street
Ebensburg, PA 15931

Thomas Chemisky
Cambria County Commissioner
200 South Center Street
Ebensburg, PA 15931

Bruce Baker
Jackson Township President
513 Pike Road
Johnstown, PA 15909

Timothy Hofecker
Jackson Township Supervisor
1129 Hofecker Drive
Mineral Point, PA 15942

Douglas Chew, Vice Chair
Westmoreland County Commissioner
2 N. Main Street, Suite 101
Greensburg, PA 15601

Jason Rigone, Director
Westmoreland County Planning
40 N. Pennsylvania Avenue, 5th Floor, Suite
520
Greensburg, PA 15601

Carl Fabrizio
St. Clair Township
550 Seward Street
Seward, PA 15954

Bonni Dunlap
Indiana County Commissioner
825 Philadelphia Street
Indiana, PA 15701

Sherene Hess
Indiana County Commissioner
825 Philadelphia Street
Indiana, PA 15701

Patricia Napotnik
East Wheatfield Township Supervisor
669 Weller Road
New Florence, PA 15944

Keith Rager
Cambria County Commissioner
200 South Center Street
Ebensburg, PA 15931

Mark Lazarri
Cambria County Planning Director
401 Candlelight Drive, Suite 215
Ebensburg, PA 15931

Fred Meier
Jackson Township Supervisor
513 Pike Road
Johnstown, PA 15909

John Gresh
235 Dishong Mountain Road
Johnstown, PA 15906

Pennsylvania Electric Co. C/O FirstEnergy
300 Madison Avenue
P.O. Box 1911
Morristown, NJ 07960

Commonwealth of Pennsylvania
501 N 3rd Street
Harrisburg, PA 17101

Dolores Waters & Mary Ann Estvanik
542 Penn Avenue
Johnstown, PA 15905

Pristine Resources Inc. C/O Rosebud
Mining Co.
301 Market Street
Kittanning, PA 16201

Commonwealth of Pennsylvania:
Department of Conservation and Natural
Resources
P.O. Box 8451
Harrisburg, PA 17120

Greater Johnstown Water Authority
111 Roosevelt Boulevard
Johnstown, PA 15906

Allegheny Valley Connector LLC
625 Liberty Avenue, Suite 1700
Pittsburgh, PA 15222

Commonwealth of Pennsylvania
501 N 3rd Street
Harrisburg, PA 17105-8451

Seward Generation LLC
11 Lloyd Avenue, Suite 300
Latrobe, PA 15650

Eastcore Development LLC
235 Dishong Mountain Road
Johnstown, PA 15906

Cocca Devel Ltd.
250 Debartolo Place, Suite 1650
Boardman, OH 44512

Larry Amos
4 Griffith Avenue
Washington, PA 15301

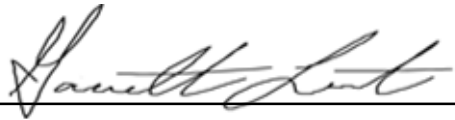
Pennsylvania Lines LLC C/O Norfolk
Southern Railway Co.
110 Franklin Road SE
Roanoke, VA 24042

Commonwealth of Pennsylvania Forest
Water Department
501 N 3rd Street
Harrisburg, PA 17120

Patricia Banko
P.O. Box 24
Seward, PA 15954

Rodzina Group LLC
108 Timberlane Dr
Ligonier, PA 15658

Date: June 4, 2026

A handwritten signature in cursive script, appearing to read "Garrett P. Lent", is written over a solid horizontal line.

Garrett P. Lent

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**LETTER OF NOTIFICATION FILING
OF MID-ATLANTIC INTERSTATE
TRANSMISSION, LLC FOR THE
JOHNSTOWN–SEWARD 230
KILOVOLT TRANSMISSION LINE
REBUILD PROJECT IN ST. CLAIR
TOWNSHIP IN WESTMORELAND
COUNTY, EAST WHEATFIELD
TOWNSHIP IN INDIANA COUNTY,
AND JACKSON TOWNSHIP IN
CAMBRIA COUNTY,
PENNSYLVANIA**

:
:
:
:
: Docket No. _____
:
:
:
:
:
:
:
:
:
:
:

LETTER OF NOTIFICATION

To the Pennsylvania Public Utility Commission:

Pursuant to 52 Pa. Code § 57.72(d)(1)(v), Mid-Atlantic Interstate Transmission, LLC (“MAIT” or “Company”) submits this Letter of Notification requesting that the Pennsylvania Public Utility Commission (“Commission”) approve the Johnstown–Seward 230 Kilovolt (“kV”) Transmission Line Rebuild Project (“Project”) as described herein.

The proposed Project was developed to rebuild the existing 6.7-mile Johnstown–Seward 230 kV Transmission Line. The Project will require replacing fifty-nine of the existing sixty structures and increasing the conductor size.

This Project is located in St. Clair Township, Westmoreland County; East Wheatfield Township, Indiana County; and Jackson Township, Cambria County, Pennsylvania. MAIT has provided information regarding this Project to all identified political subdivisions, and none of

them have objected to the Project. Subject to the Commission's approval, construction on the Project is scheduled to begin on or about August 1, 2026, to meet an in-service date of June 15, 2027. To support the construction timeline, MAIT respectfully requests that the Commission issue its final ruling by the Public Meeting scheduled for July 16, 2026.

In support thereof, MAIT submits as follows:

I. INTRODUCTION

1. MAIT is a public utility 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 its behalf, are:

Tori Giesler (ID #207742)
FirstEnergy Service Company
341 White Pond Drive
Akron, OH 44320
Phone: (610) 921-6658
E-mail: 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
Phone: (717) 731-1970
E-mail: dmacgregor@postschell.com
glent@postschell.com
mrulli@postschell.com

Emily S. Grecu (ID # 337777)
Post & Schell, P.C.
One Oxford Centre
301 Grant Street, Suite 3010
Pittsburgh, PA 15219
Phone: (717) 612-6052
Fax: (717) 731-1985
E-mail: egrecu@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:

Michael DeSarro
Transmission Specialist II
FirstEnergy Service Company
341 White Pond Drive
Akron, OH 44320
Phone: (330) 384-3721
E-mail: makesarro@firstenergycorp.com

5. MAIT provides the following attached exhibits in support of this Letter of Notification:

- **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 copy of the PJM Transmission Expansion Advisory Committee (“TEAC”) meeting slides dated November 4, 2025;
- **Exhibit 4:** A depiction of a 230 kV steel monopole delta strain/deadend structure;
- **Exhibit 5:** A depiction of a 230 kV steel H-frame strain/deadend structure;
- **Exhibit 6:** A depiction of a 230 kV steel H-frame suspension structure;
- **Exhibit 7:** A depiction of a 230 kV steel three pole angle structure;
- **Exhibit 8:** A depiction of a 230 kV steel three pole strain/deadend structure;
- **Exhibit 9:** A depiction of a 230 kV steel three pole angle structure with davit arms;
- **Exhibit 10:** Ground Line Inspection Summary Results;
- **Exhibit 11:** A copy of the Wetland and Stream Delineation Report prepared by Civil and Environmental Consultants, Inc. (“CEC”), dated February 2025;

- **Exhibit 12:** A copy of the Pennsylvania Natural Diversity Inventory (“PNDI”) review dated July 5, 2024, and agency clearance correspondence with the Pennsylvania Game Commission (“PGC”), Pennsylvania Department of Conservation and Natural Resources (“DCNR”), Pennsylvania Fish and Boat Commission (“PFBC”), and U.S. Fish and Wildlife Service (“USFWS”); and
- **Exhibit 13:** Copies of the Pennsylvania State Historic Preservation Office (“SHPO”) Clearance letters dated August 30, 2024, and December 23, 2024.

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. As explained in further detail below, the proposed Project is needed to rebuild the existing Johnstown–Seward 230 kV Transmission Line. This Project was developed as a supplemental project under the PJM OATT Attachment M-3 process for supplemental projects. The need to rebuild from wood pole construction to steel pole construction is due to the deteriorating physical condition of the transmission line. The identified rebuild using steel poles will safeguard the transmission line and make it less susceptible to the environmental degradation that is driving the need for this Project. In addition, due to increased electrical need in the areas supported by the Johnstown–Seward 230 kV Transmission Line, there is a need, as part of the rebuild, to increase the conductor size to accommodate both load growth as well as injection of electrical generation into the transmission system. Increasing the conductor size will enhance capacity, improve operational flexibility, and support anticipated load growth while maintaining system reliability.

B. Existing System

8. The existing transmission line is approximately 6.7 miles in length. The majority of the existing structures are wood H-Frame structures, averaging approximately 75 feet above

ground height. The current average span length is approximately 565 feet. The existing transmission line conductor is 1033.5 kcmil 54/7 ACSR “Curlew” with two shield wires. The existing shield wires are 3/8-7 Strand EHS Steel and FOCAS Skylite OPGW Cable.

9. A map of the existing system configuration is provided as **Exhibit 2**.

C. Identification of Need

10. The proposed Project is needed to rebuild an existing high-voltage (“HV”) transmission line based on its deteriorating condition and surrounding wildlife activity that negatively impacts this transmission line. The transmission line was originally constructed in 1961. This line is currently supported by a combination of fifty-eight three-pole and two-pole wood H-frame structures and three steel structures, two of which were part of the original construction. The single steel monopole structure adjacent to Seward Substation, which is not being replaced as part of this Project, was installed in 2013. The conductor is 1033.5 kcmil 54/7 ACSR installed in 1961 and, due to age and inability to meet tension requirements, will be replaced as part of this Project in lieu of a future near-term reconductor project. The shield wire is a combination of 3/8" 7-Strand EHS Steel (installed in 1961) and OPGW FOCAS Skylite 36 Fiber (installed in 1994).

11. A wood pole inspection was conducted in 2019 on the Johnstown–Seward 230 kV Transmission Line. As evidenced by the inspection, many structures exhibited more than one deficiency. The inspection identified forty-three structures with decay, fifty-four structures with shell rot, three structures with cracking, and three structures that exhibited fire damage. In addition to the measurable levels of decay and rot, the inspection also identified twelve structures with woodpecker damage and twenty-one structures with insect damage. **Exhibit 10** shows photographic evidence of the found conditions explained above. **Exhibit 10** Table 1 shows a summary of these results, and Table 2 shows the inspection by structure.

12. The historical priority repair conditions paired with the wood pole inspection information show the deteriorating condition of the Johnstown–Seward 230 kV Transmission Line’s components and poles. There are fifty-nine total repair records associated with this line dating back to 2015. It is important to note that eleven priority repairs are associated with the cross arms or braces of these structures. As the braces for these cross arms degrade, their ability to support the cross arms from which the insulators and conductor hang diminishes, resulting in either bent or broken cross arms. *See* Figure 2. Cross arm failures could result in unscheduled outages in the future if these issues are not remediated.

13. There are eleven historical repairs for broken bells on insulator strings. The majority of the insulators on the Johnstown–Seward 230 kV Transmission Line are original to the line’s construction and are beginning to degrade. As insulators age, the glaze protecting the porcelain bell degrades due to climatic factors, reducing electrical insulation and increasing the risk of flashover or damaging events. Once an insulator is compromised, it can result in flashed and broken insulator bells (*see* Figure 3), and in the worst case, an unscheduled outage. While there have been no unscheduled outages on this transmission line, the eleven repair records associated with broken bells and the two repair records associated with flashed insulators indicate that the insulators are reaching the end of their service life.

14. MAIT is proposing to rebuild the current transmission line with steel structures. Compared to wood structures, steel structures are more resilient to environmental concerns that are currently facing the line. This solution, in concert with routine maintenance and inspections, will mitigate current maintenance issues on the Johnstown–Seward 230 kV Transmission Line.

15. In addition, MAIT plans to upgrade the proposed conductor from 1033 ACSR to 1590 ACSS to address current and future system needs. The area surrounding the Homer City 345 kV Substation is experiencing significant load growth, along with a substantial increase in

generation at the Homer City Substation. These changes are driving increased power flows on the Johnstown–Seward 230 kV Transmission Line. This upgrade will enhance capacity, improve operational flexibility, and support anticipated load growth while maintaining system reliability.

16. The proposed Project was presented at the TEAC on October 8, 2025, and the Solution meeting on November 4, 2025. The Company’s PJM TEAC presentation slides are included as **Exhibit 3**. The Supplemental Number for the proposed Project is s3575.1.

17. The alternative to the proposed Project is to defer any rebuild project and continue to maintain the line. The alternative was not chosen due to the deteriorating condition of the line as a whole and the increasing risk of failures.

18. The implementation of advanced technologies was considered as part of this Project. A 1590 kcmil 54/19 ACSS “Falcon” will be installed along the entirety of the transmission line from Johnstown Substation to Seward Substation. OPGW cables will replace the existing ground wire and be installed from the Johnstown Substation to the Seward Substation. The OPGW, in addition to the other existing OPGW, will complete a fiber pathway between the Johnstown Substation and the Seward Substation. The OPGW installation will replace the existing shield wire to integrate optical fibers for telecommunications and serve as lightning protection.

19. ACSS provides higher operating temperature capabilities and lower sag characteristics. The high-temperature/low-sag (“HTLS”) conductor allows for higher ampacity to be run through the conductor and provides more flexibility to alleviate overloading and premature degradation. Another benefit of an HTLS conductor’s higher ampacity is the ability to add additional load to the line. OPGW enables remote power system monitoring, relay protection, and network communications through high-speed data transmission. It provides real-time data exchange for system protection schemes and SCADA, improving system reliability and operational flexibility. OPGW offers a reliable communication path with minimal maintenance. It

enables critical power functions like remote monitoring, fault detection, and real-time data communication.

D. THE PROPOSED PROJECT

20. The proposed Project will replace fifty-nine of the existing sixty-one structures. The structure immediately adjacent to the Seward Substation, Structure #61, will remain. Existing structure #26 will be removed and not replaced. Fifty-nine new structures will be installed and consist of eight three-pole steel structures, fifty two pole steel H-frame structures, and one single steel monopole.

21. The fifty-nine new structures to be installed are comprised of the following. Two steel monopole delta strain/deadend structures, as shown in **Exhibit 4**. Three steel H-frame strain/deadend structures, as shown in **Exhibit 5**. Forty-six steel H-frame suspension structures, as shown in **Exhibit 6**. Three steel pole angle structures, as shown in **Exhibit 7**. Two steel three-pole strain/deadend structures as shown in **Exhibit 8**. Three steel pole angle structures with davit arms, as shown in **Exhibit 9**. The height of the proposed new structures will range from 57 to 98 feet above ground. The average existing structure height is approximately 75 feet above ground, and the proposed new average structure height is also approximately 75 feet above ground. The average existing span length is approximately 565 feet, and the average proposed span length will be approximately 576 feet.

22. The existing conductor is 1033.5 kcmil 54/7 ACSR “Curlew” with two shield wires. The existing shield wires are 3/8-7 Strand EHS Steel and FOCAS Skylite OPGW Cable. The Project proposes the use of new 1590 kcmil 54/19 ACSS “Falcon” conductor and two shield wires.

One of the shield wires will be the existing Focas Skylite OPGW, which will be transferred to the proposed structures. The second shield wire will be a new SFSJ-J-13304 OPGW cable.

23. The proposed Project will be located within the existing 250-foot-wide right-of-way (“ROW”). The existing easements allow for the installation of the proposed structure replacements. No new ROW or easements are required.

24. A depiction of the general location of the Project is provided in **Exhibit 1**. A depiction of the general layout of the Project is provided in **Exhibit 2**.

25. All transmission lines will be owned, operated, and maintained by MAIT. The estimated transmission line cost is approximately \$31,834,000. This cost includes approximately \$1,937,000 for engineering, \$5,812,000 for materials, and \$24,085,000 for construction.

III. HEALTH AND SAFETY

26. 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.

27. FirstEnergy’s design criteria require that 230 kV transmission lines have a designed vertical conductor-to-ground clearance of twenty-nine feet. This design value exceeds the NESC minimum of 22.4 feet by a margin of 6.6 feet. In general, FirstEnergy’s clearance criteria exceed the NESC minimums by various margins ranging from two feet to seven feet, depending on the voltage and specific clearance measurement. The transmission line’s maximum operating temperature will be 212 degrees Fahrenheit.

28. 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 in accordance with the Company’s standard

construction practices to perform all work safely. All work will be performed in accordance with NESC, OSHA, and all other applicable state and federal requirements.

IV. DESCRIPTION OF RIGHT OF WAY

29. The proposed Project will be located entirely within an existing ROW. The Project will maintain the existing centerline in the ROW.

30. Existing easements allow for the proposed structure replacements and the proposed additional structure. No new structures are proposed to be located on properties that do not currently have a structure. No new ROW or easements are required to complete the Project. MAIT will coordinate with all affected landowners to obtain 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 the existing ROW.

32. A field review for wetlands and streams in the Project Area was conducted by GAI Consultants (“GAI”) in July 2023, September 2024, and February 2025. A copy of the Wetland Delineation and Stream Identification Report dated February 2025 is included as **Exhibit 11**. Based on the current engineering design, four structures currently located within wetlands are proposed to be replaced at their existing locations, and the line will aerially cross the Conemaugh River, a Section 10 Navigable Water, in two locations. Temporary wetland impacts associated with access and construction efforts will be minimized to the greatest extent practicable through engineering design, construction, and access planning. Timber matting will be utilized to minimize potential impacts to wetlands and streams, and streams will be air-bridged during access and construction. Existing access roads are proposed to be utilized to the extent practicable, and non-existing access roads are proposed to be restored to original vegetative cover following

construction. Access road tree clearing will be required for the Project; however, no tree clearing will be performed within wetlands.

33. An Individual National Pollutant Discharge Elimination System (“NPDES”) Permit for construction stormwater discharges will be prepared and submitted for approval to the Westmoreland County Conservation District, Indiana County Conservation District, Cambria County Conservation District, and the Pennsylvania Department of Environmental Protection’s (“PADEP”) Regional Permit Coordination Office (“RPCO”). MAIT assumes the Project will be considered exempt or in compliance with the riparian buffer requirements in Section 102.14 of the Pennsylvania Code.

34. A permit will also be prepared and submitted for approval to register the replacement structures in wetlands, stream and wetland equipment crossings, and aerial crossing of streams and wetlands. The permit will be submitted to PADEP RPCO and the United States Army Corps of Engineers (“USACE”). USACE will provide federal authorization of the Section 10 Conemaugh River aerial crossings.

35. A PNDI review was conducted in July 2024. The PNDI online tool indicated there are potential impacts to species regulated by the PGC and PFBC, no known impacts to species regulated by the Pennsylvania DCNR, and an avoidance measure for species regulated by the USFWS.

36. The PNDI noted a potential impact on the threatened Allegheny woodrat (*Neotoma magister*), and GAI provided additional Project information to PGC on July 24, 2024, to assist with their review. The PGC concluded on August 26, 2024, that impacts to the Allegheny woodrat are not anticipated. The PGC also indicated that the Project crosses State Game Lands No. 42 and requested that MAIT coordinate with the local Land Management Supervisor. MAIT will

coordinate with the Land Management Supervisor to discuss the Project and obtain approvals, as necessary.

37. The Project is located near spring staging/fall swarming habitat for the federally endangered northern long-eared bat (*Myotis septentrionalis*), and the USFWS requests that tree removal be avoided during the pup season, considered May 15 to August 15. MAIT agrees to implement this avoidance measure, and no further coordination with the USFWS regarding threatened or endangered species is required.

38. In a letter dated July 18, 2024, the PFBC informed MAIT that the Project has the potential to impact the timber rattlesnake (*Crotalus horridus*), a species of special concern, and recommended that a habitat assessment be completed by a qualified timber rattlesnake surveyor. Habitat assessments documented eight areas of potential critical habitat (five potential gestation areas and three potential overwintering/denning areas) for the timber rattlesnake, and results were provided to PFBC on October 16, 2024. On November 26, 2024, the PFBC provided avoidance and minimization recommendations for the potential gestation habitat areas and requested presence/absence surveys for timber rattlesnakes be conducted within the potential overwintering/denning areas. The presence/absence survey completed between April 22 and May 10, 2025, confirmed the presence of snakes within all three overwintering/denning areas, and the results were provided to PFBC on June 27, 2025. On July 2, 2025, the PFBC provided revised avoidance and minimization recommendations for the potential gestation habitat areas and overwintering/denning areas. If working within 300 feet of the potential gestation habitat areas from April 15 to October 15, MAIT will contract a PFBC-approved timber rattlesnake biologist to inspect and clear the work area each day prior to commencement of construction activities, educate contractors on presence of timber rattlesnakes and who to contact if snakes are encountered, avoid use of monofilament/plastic netting as an erosion control fabric, summarize data collected on

relocated snakes within a monitoring report submitted to PFBC, and grant on-site access to PFBC personnel to observe Project progression. For the potential overwintering/denning areas, MAIT will restrict work within 300 feet of the confirmed overwintering/denning areas from April 15 to October 15 and implement the PFBC-requested avoidance and minimization measures as described above for potential gestation areas and detailed in the July 2, 2025, response letter. The PNDI receipt and correspondence from PGC and PFBC are included as **Exhibit 12**.

39. Consultation with SHPO was initiated on August 20, 2024. SHPO responded on August 30, 2024, and stated the proposed Project will have no effect on aboveground historic properties but requested that a Phase 1 archaeological survey be conducted within the Project area. The survey conducted October 7 through October 24, 2024, identified two newly recorded historic period archaeological sites and two precontact-period isolated finds. The report summarizing the results and recommending that the Project proceed as designed was submitted to SHPO on November 26, 2024. In a response dated December 23, 2024, SHPO concurred with the findings and recommendation of the report and indicated that no further archaeological work is necessary for the Project. Correspondence from SHPO is included as **Exhibit 13**.

VI. NOTICE

40. MAIT has provided information regarding the Project to representatives of St. Clair Township in Westmoreland County, East Wheatfield Township in Indiana County, and Jackson Township in Cambria County, Pennsylvania. These entities have not objected to the proposed Project. 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).

VII. LETTER OF NOTIFICATION

41. 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)(v).

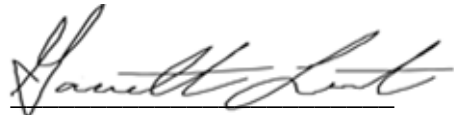
42. The proposed Project qualifies for use of a Letter of Notification because the Project is an HV line which is to be recondored or reconstructed so long as the size, character, design or configuration of the proposed HV line does not substantially alter the right-of-way. *See* 52 Pa. Code § 57.72(d)(1)(v).

43. The proposed Project involves replacing fifty-nine of the existing sixty structures and increasing the conductor size, to rebuild the existing 6.7-mile Johnstown–Seward 230 kV Transmission Line. As such, the Project meets the parameters of 52 Pa. Code § 57.72(d)(1)(i) for a high voltage line proposed to be located entirely on an existing transmission line ROW, as well as the parameters of § 57.72(d)(1)(v) for a high voltage line which is to be recondored or reconstructed, so long as the size, character, design or configuration of the proposed high-voltage line does not substantially alter the ROW.

44. 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 Johnstown–Seward 230 Kilovolt Transmission Line in St. Clair Township in Westmoreland County, East Wheatfield Township in Indiana County, and Jackson Township in Cambria County, Pennsylvania, which is explained above and in the Exhibits attached hereto, on or before 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



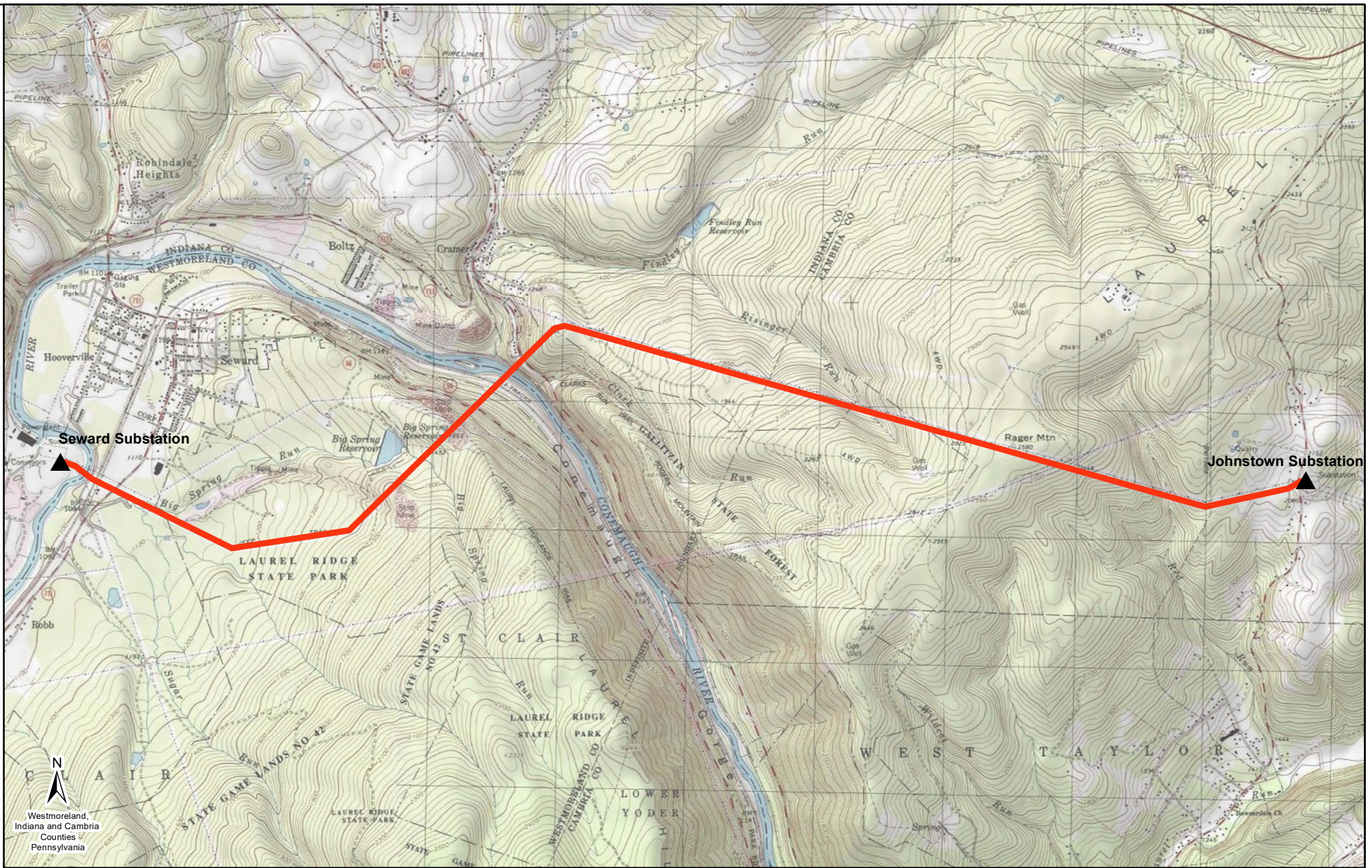
David B. MacGregor (ID #28804)
Garrett P. Lent (ID #321566)
Megan E. Rulli (ID # 331981)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
Phone: (717) 731-1970
Fax: (717) 731-1985
E-mail: dmacgregor@postschell.com
glent@postschell.com
mrulli@postschell.com

Emily S. Grecu (ID # 337777)
Post & Schell, P.C.
One Oxford Centre
301 Grant Street, Suite 3010
Pittsburgh, PA 15219
Phone: (717) 612-6052
Fax: (717) 731-1985
E-mail: egrecu@postschell.com

Date: June 4, 2026

Attorneys for Mid-Atlantic Interstate
Transmission, LLC

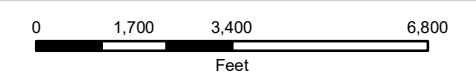
EXHIBIT 1



Westmoreland,
Indiana and Cambria
Counties
Pennsylvania

LEGEND:

- Substation
- Johnstown-Seward 230 kV Transmission Line



Reference:
USGS Topographical Overlay; PennDOT, PADCNR PAMAP

Coordinate System:
NAD_1983_StatePlane_Pennsylvania_North_FIPS_3701_Feet
WKID: 2271 Authority: EPSG

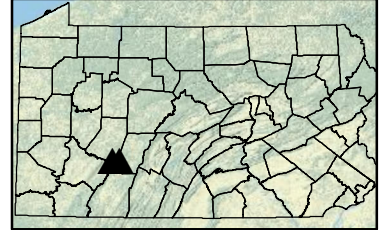
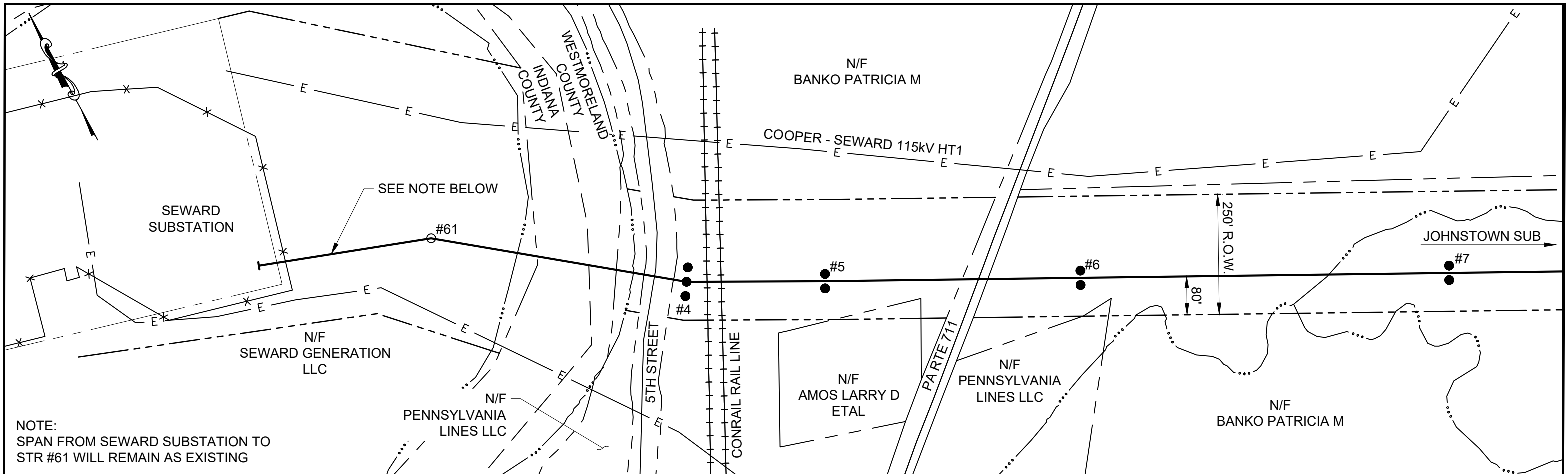


EXHIBIT 1



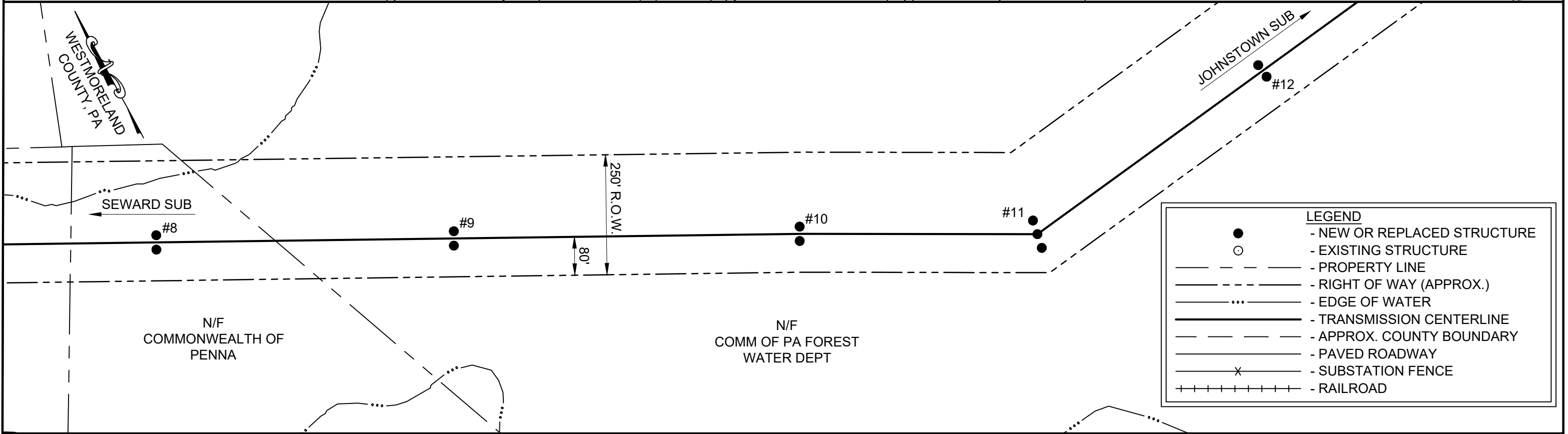
**Johnstown - Seward 230 kV
Transmission Line Rebuild Project**

EXHIBIT 2



NOTE:
SPAN FROM SEWARD SUBSTATION TO
STR #61 WILL REMAIN AS EXISTING

SEE NOTE BELOW



LEGEND	
●	- NEW OR REPLACED STRUCTURE
○	- EXISTING STRUCTURE
---	- PROPERTY LINE
- - -	- RIGHT OF WAY (APPROX.)
...	- EDGE OF WATER
—	- TRANSMISSION CENTERLINE
- - -	- APPROX. COUNTY BOUNDARY
—	- PAVED ROADWAY
×	- SUBSTATION FENCE
+ + + + +	- RAILROAD

JOHNSTOWN – SEWARD 230KV TRANSMISSION LINE REBUILD PROJECT GENERAL LAYOUT			
MAIT <small>Mid-Atlantic Interstate Transmission, LLC</small>	ASSET/OP. CO.	DWG NO.	SHEET REV.
	MAIT/PN	EXHIBIT 1	1/6

WESTMORELAND
COUNTY, PA

SEWARD SUB

#13

#14

#15

#16

250' R.O.W.

80'

JOHNSTOWN SUB

N/F
COMM OF PA FOREST
WATER DEPT

WESTMORELAND
COUNTY, PA

SEWARD SUB

#17

#18

#19

#20

#21

#22

#23

250' R.O.W.

80'


JOHNSTOWN SUB

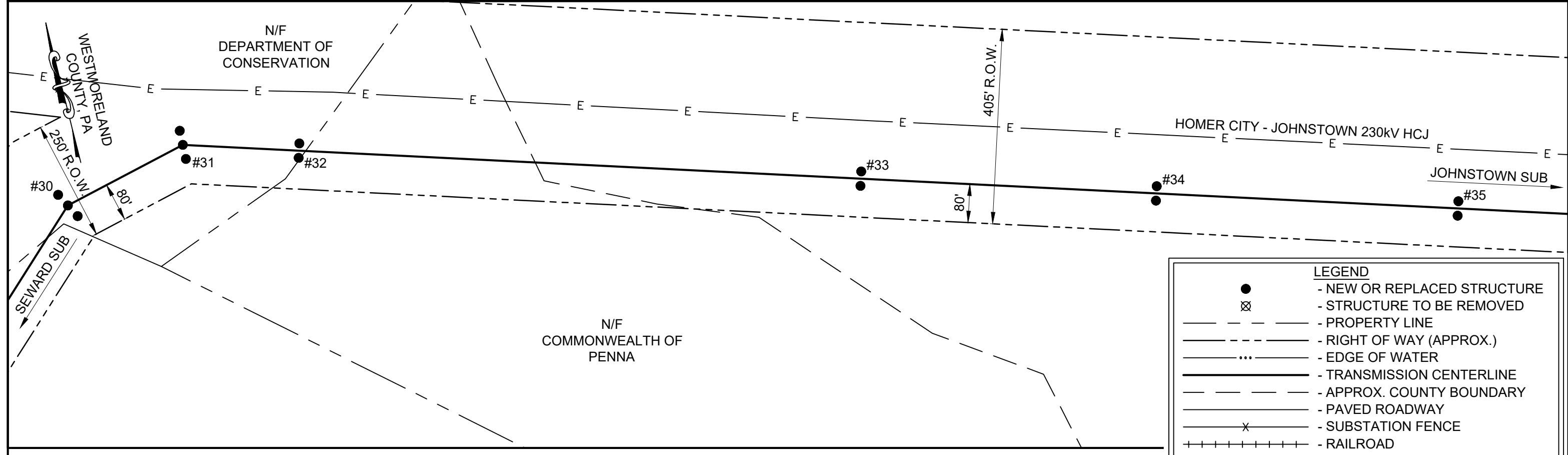
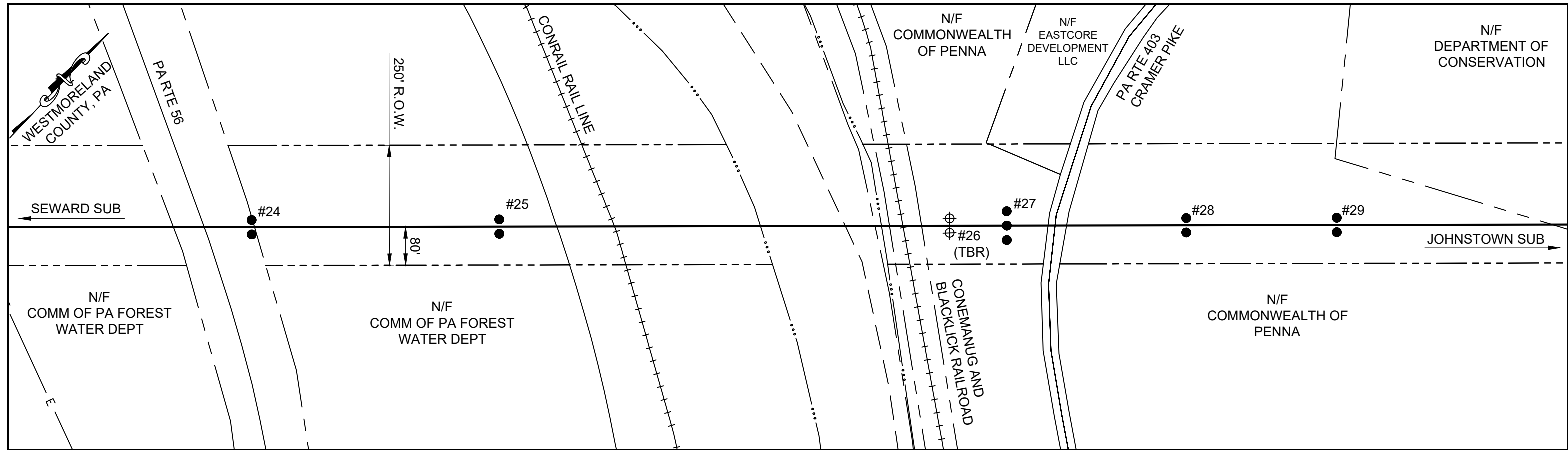
E
COOPER - SEWARD
115KV HT 1

N/F
COMM OF PA FOREST
WATER DEPT

LEGEND	
●	- NEW OR REPLACED STRUCTURE
---	- PROPERTY LINE
----	- RIGHT OF WAY (APPROX.)
.....	- EDGE OF WATER
=====	- TRANSMISSION CENTERLINE
- - - - -	- APPROX. COUNTY BOUNDARY
=====	- PAVED ROADWAY
x	- SUBSTATION FENCE
+ + + + +	- RAILROAD


JOHNSTOWN - SEWARD 230KV
TRANSMISSION LINE REBUILD PROJECT
GENERAL LAYOUT

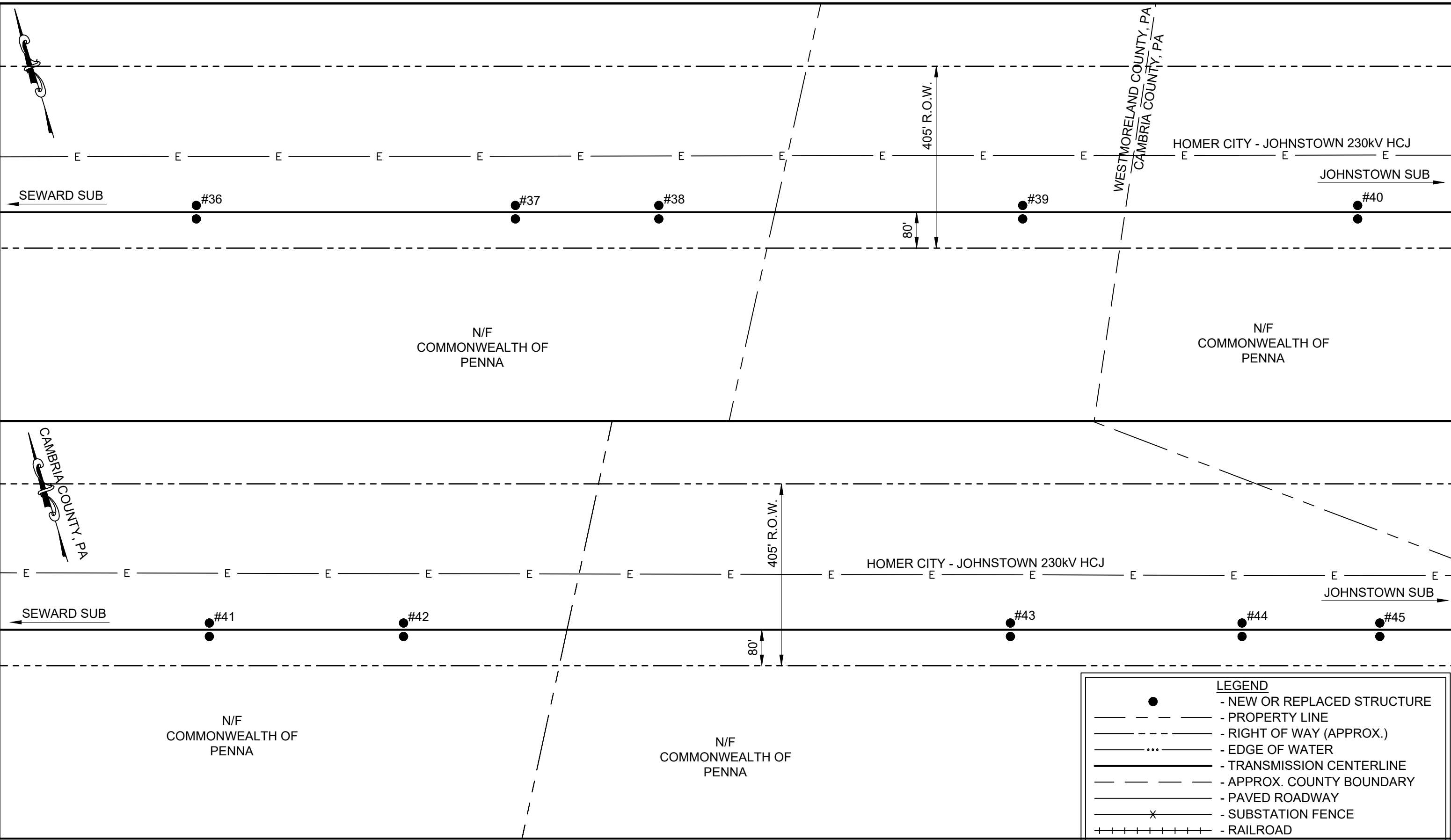
 <small>Mid-Atlantic Interstate Transmission, LLC</small>	ASSET/OP. CO.	DWG NO.	SHEET	REV.
	MAIT/PN	EXHIBIT 1	2/6	




LEGEND	
●	- NEW OR REPLACED STRUCTURE
⊗	- STRUCTURE TO BE REMOVED
---	- PROPERTY LINE
- - - - -	- RIGHT OF WAY (APPROX.)
...	- EDGE OF WATER
—	- TRANSMISSION CENTERLINE
- - - - -	- APPROX. COUNTY BOUNDARY
—	- PAVED ROADWAY
x	- SUBSTATION FENCE
+ + + + +	- RAILROAD

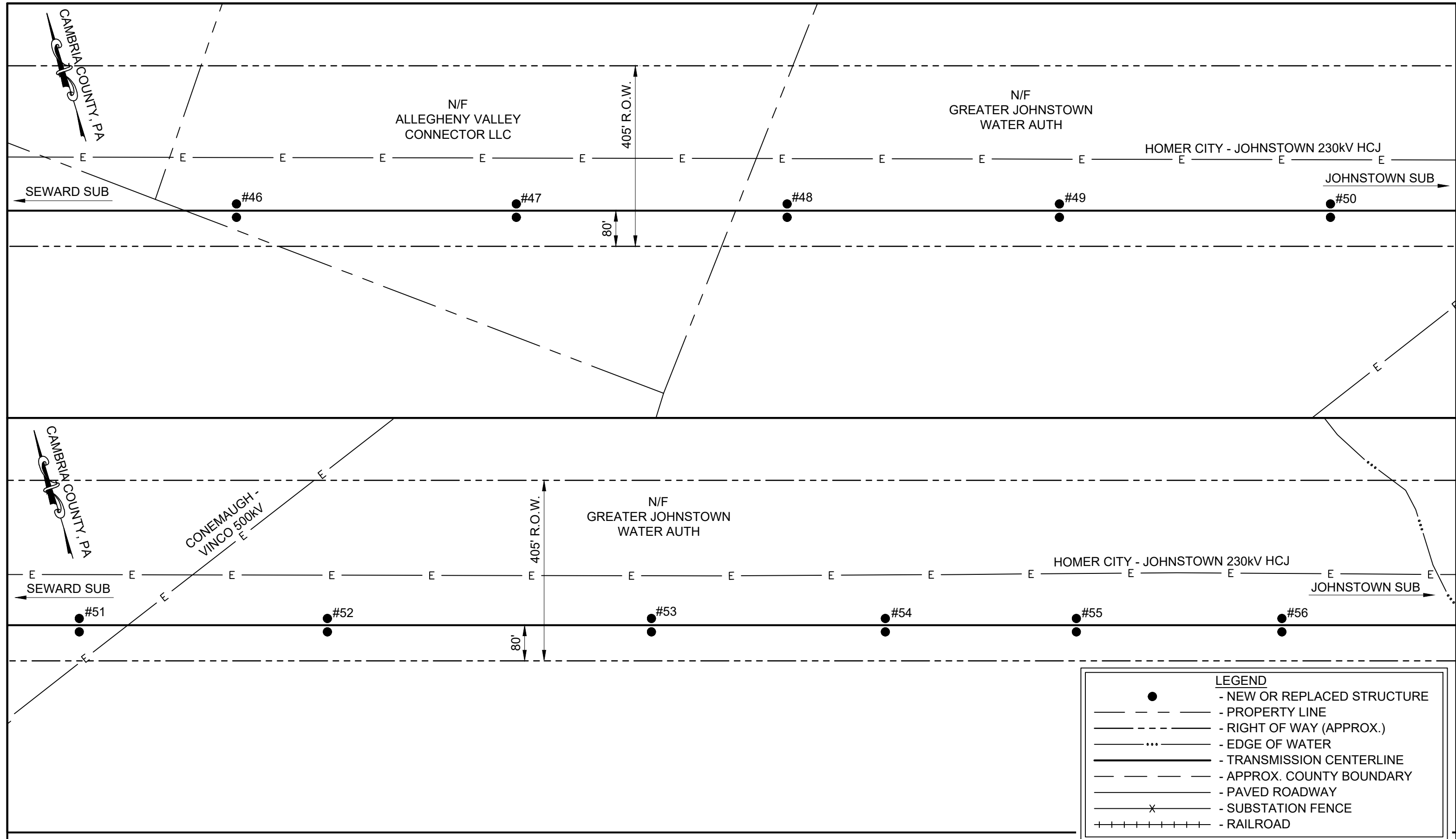
**JOHNSTOWN – SEWARD 230kV
TRANSMISSION LINE REBUILD PROJECT
GENERAL LAYOUT**

 <small>Mid-Atlantic Interstate Transmission, LLC</small>	ASSET/OP. CO. MAIT/PN	DWG NO. EXHIBIT 1	SHEET 3/6	REV.



LEGEND	
●	- NEW OR REPLACED STRUCTURE
---	- PROPERTY LINE
----	- RIGHT OF WAY (APPROX.)
.....	- EDGE OF WATER
=====	- TRANSMISSION CENTERLINE
- - - - -	- APPROX. COUNTY BOUNDARY
=====	- PAVED ROADWAY
x	- SUBSTATION FENCE
+ + + + +	- RAILROAD

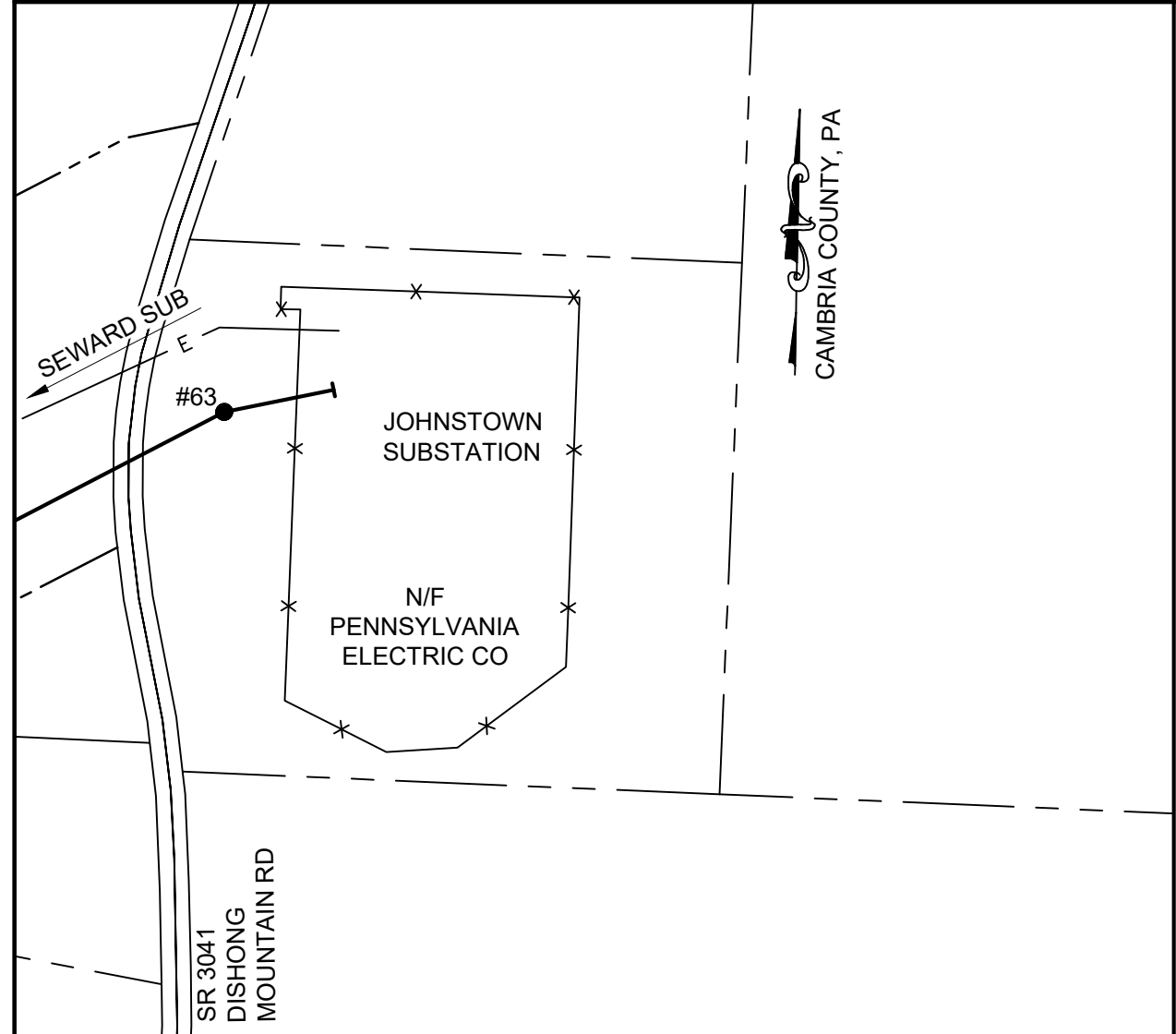
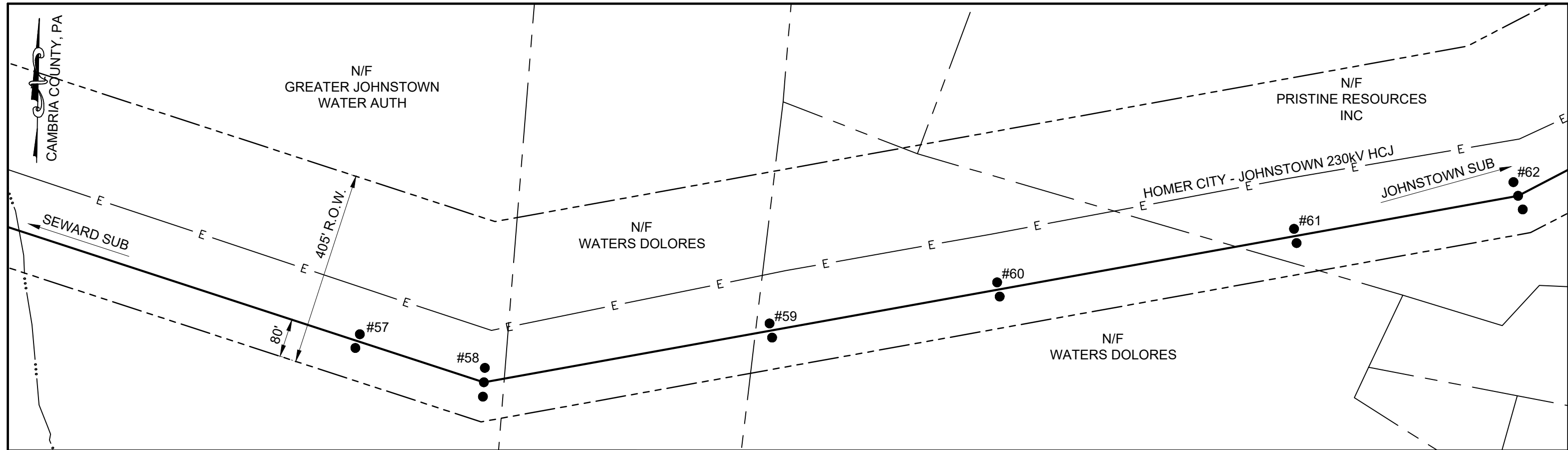
JOHNSTOWN - SEWARD 230kV TRANSMISSION LINE REBUILD PROJECT GENERAL LAYOUT				
 <small>Mid-Atlantic Interstate Transmission, LLC</small>	ASSET/OP. CO. MAIT/PN	DWG NO. EXHIBIT 1	SHEET 4/6	REV.



LEGEND	
●	- NEW OR REPLACED STRUCTURE
---	- PROPERTY LINE
-----	- RIGHT OF WAY (APPROX.)
.....	- EDGE OF WATER
=====	- TRANSMISSION CENTERLINE
- - - - -	- APPROX. COUNTY BOUNDARY
=====	- PAVED ROADWAY
x	- SUBSTATION FENCE
+ + + + +	- RAILROAD

**JOHNSTOWN - SEWARD 230kV
TRANSMISSION LINE REBUILD PROJECT
GENERAL LAYOUT**

 <small>Mid-Atlantic Interstate Transmission, LLC</small>	ASSET/OP. CO. MAIT/PN	DWG NO. EXHIBIT 1	SHEET 5/6	REV.
	5/6			



LEGEND	
●	- NEW OR REPLACED STRUCTURE
---	- PROPERTY LINE
----	- RIGHT OF WAY (APPROX.)
.....	- EDGE OF WATER
————	- TRANSMISSION CENTERLINE
- - - - -	- APPROX. COUNTY BOUNDARY
=====	- PAVED ROADWAY
x	- SUBSTATION FENCE
+++++	- RAILROAD

**JOHNSTOWN – SEWARD 230kV
TRANSMISSION LINE REBUILD PROJECT
GENERAL LAYOUT**

MAIT <small>Mid-Atlantic Interstate Transmission, LLC</small>	ASSET/OP. CO.	DWG NO.	SHEET	REV.
	MAIT/PN	EXHIBIT 1	6/6	

EXHIBIT 3



Penelec Transmission Zone M-3 Process Johnstown - Seward 230 kV Line

Need Numbers: PN-2025-007

Process Stage: Solution Meeting – TEAC – 11/4/2025

Previously Presented: Need Meeting – TEAC – 10/8/2025

Project Driver:

Equipment Condition, Performance and Risk

Specific Assumption Reference:

System Performance Global Factors

- System reliability and performance
- Substation/Line equipment limits

Line Condition Rebuild/Replacement

- Age/condition of wood pole transmission line structures

Problem Statement:

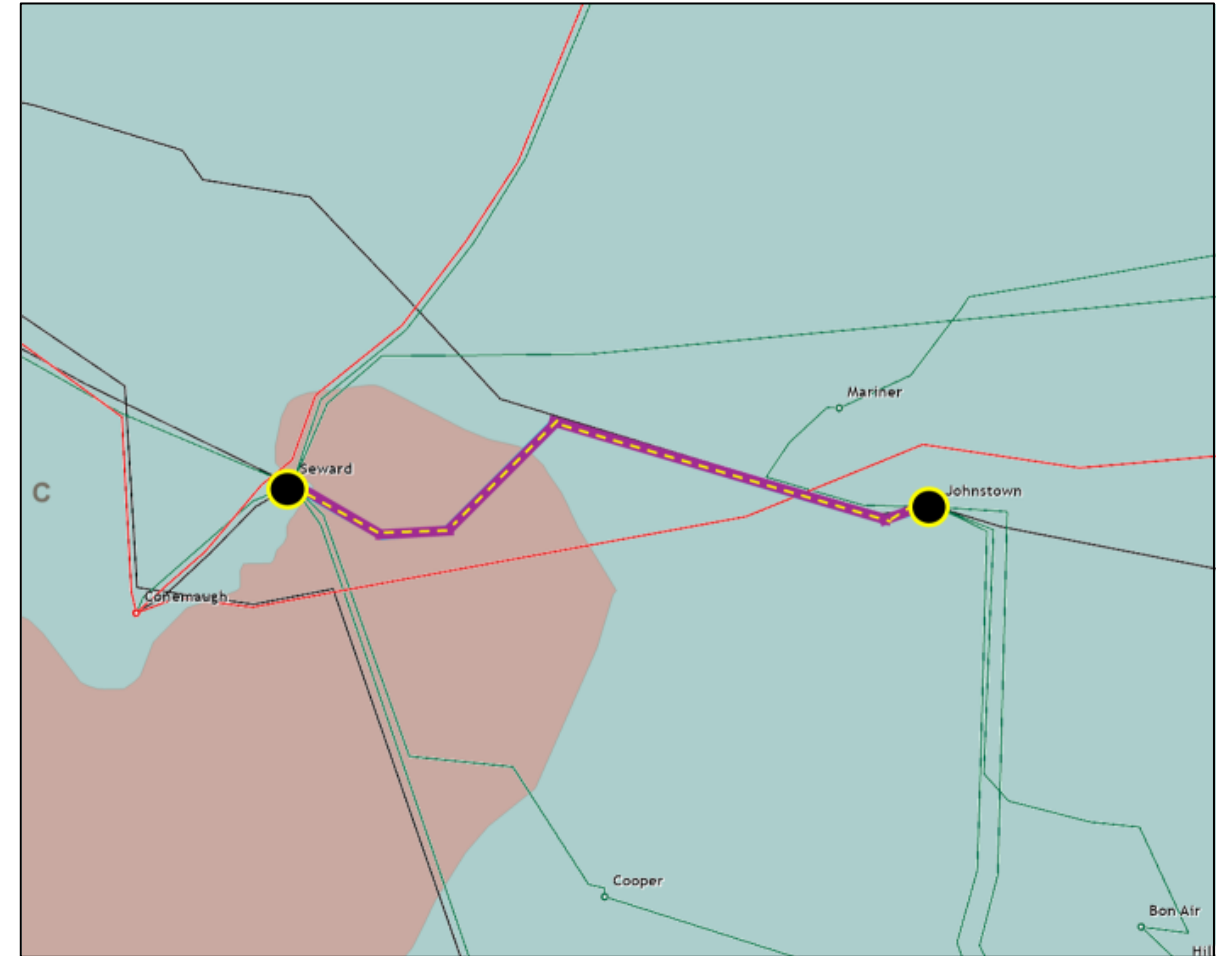
The Johnstown - Seward 230 kV Line was constructed approximately 64 years ago and is approaching end of life. The transmission line is 6.7 miles long with 129 wood pole structures.

Recent inspections have determined the line is exhibiting deterioration. Inspection findings include cracked wood poles and cross arms, woodpecker holes, and broken insulator bells occurring on 46% of the structures.

Since 2015, the line has had five unscheduled, sustained outages.

Existing Transmission Line Ratings:

- 548/666/619/790 MVA (SN/SE/WN/WE)



Need Number: PN-2025-007

Process Stage: Solution Meeting – TEAC – 11/4/2025

Proposed Solution:

Johnstown - Seward 230 kV Line

- Rebuild 6.7 miles of 230 kV transmission line on steel structures and install new conductor.

Ratings:

Johnstown - Seward 230 kV Line

- Before Proposed Solution: 546 / 666 / 619 / 790 MVA (SN/SE/WN/WE)
- After Proposed Solution: 627 / 775 / 729 / 939 MVA (SN/SE/WN/WE)

Alternatives Considered:

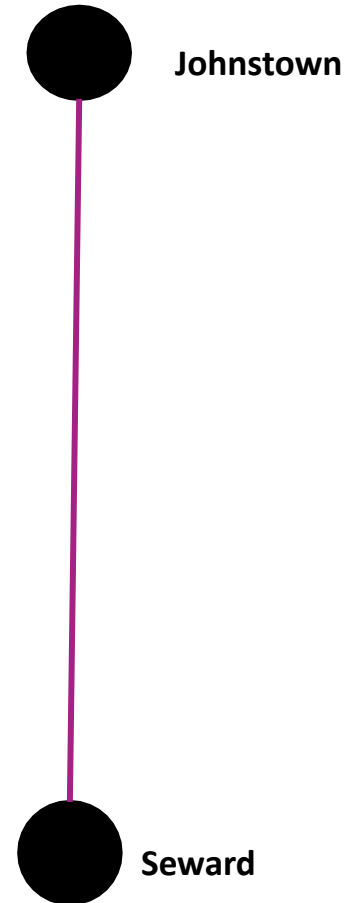
Maintain existing conditions with increased reliability concerns.

Estimated Project Cost: \$ 30.01 M

Projected In-Service: 06/15/2027

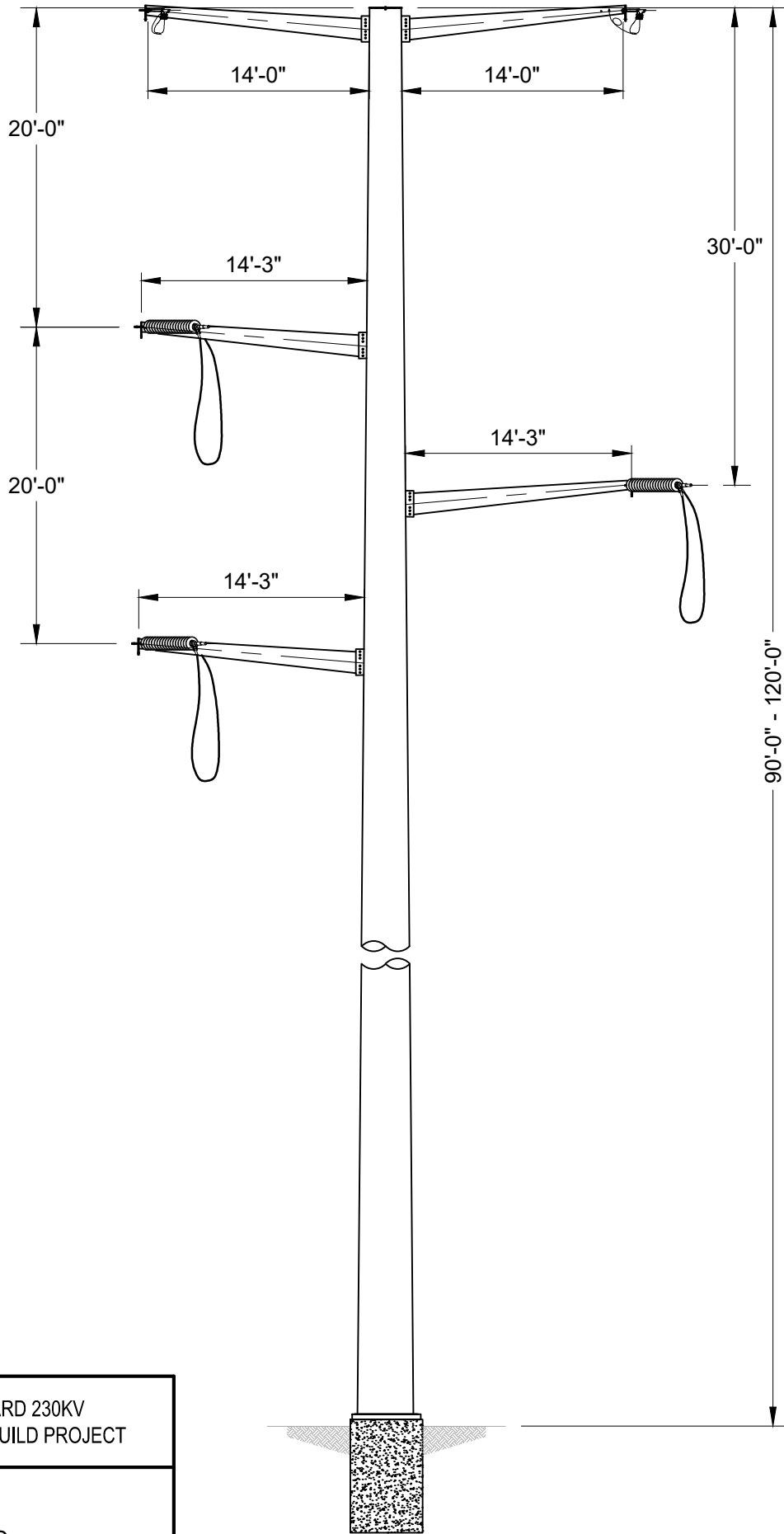
Project Status: Conceptual

Model: 2024 RTEP - 2029 Summer 50/50



Legend	
500 kV	
345 kV	
230 kV	
138 kV	
115 kV	
69 kV	
46 kV	
34.5 kV	
23 kV	
New	

EXHIBIT 4



NOT TO SCALE

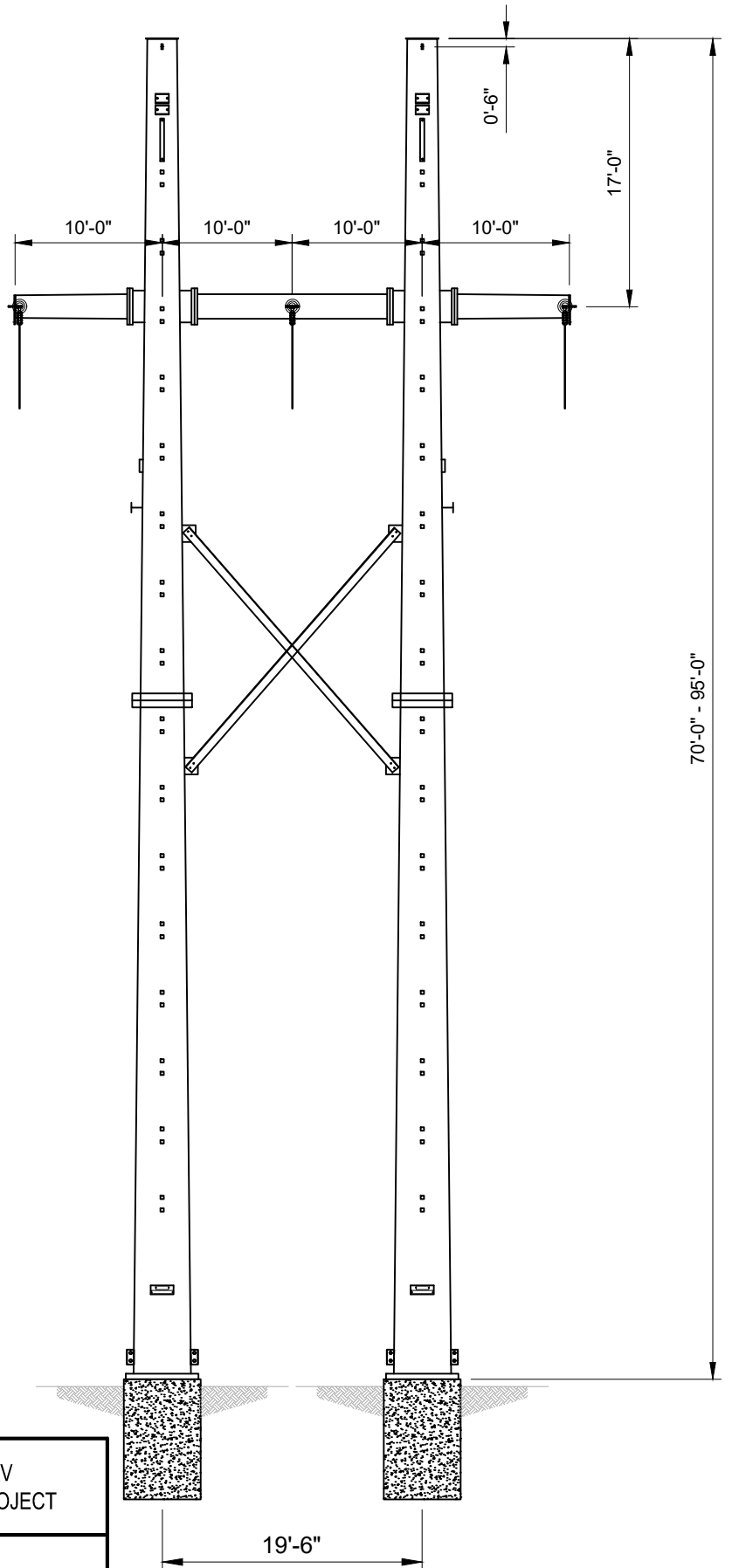


JOHNSTOWN - SEWARD 230KV
TRANSMISSION LINE REBUILD PROJECT

STEEL
MONOPOLE
DELTA STRAIN/DEADEND

EXHIBIT 4

EXHIBIT 5



NOT TO SCALE

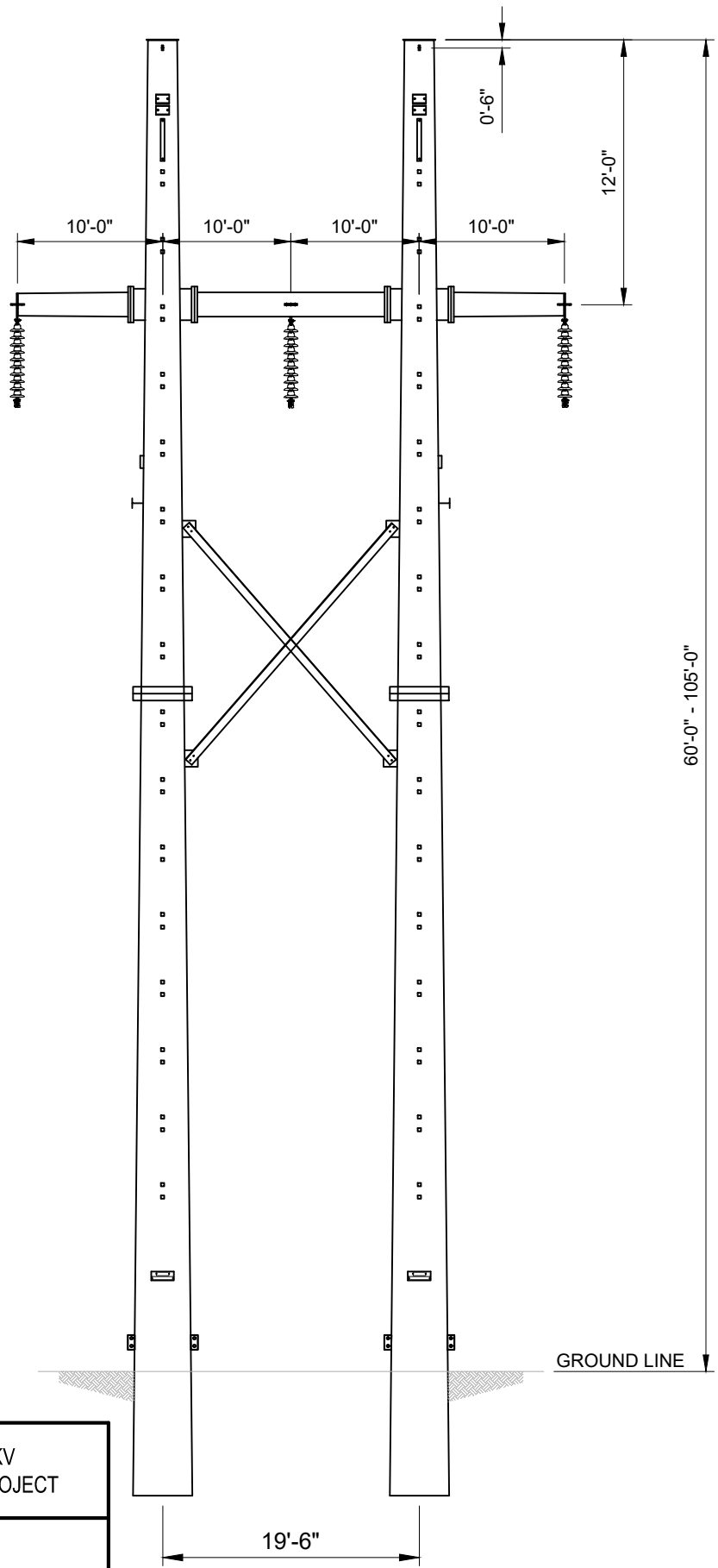


JOHNSTOWN - SEWARD 230KV
TRANSMISSION LINE REBUILD PROJECT

STEEL
H-FRAME
STRAIN/DEADEND

EXHIBIT 5

EXHIBIT 6



NOT TO SCALE

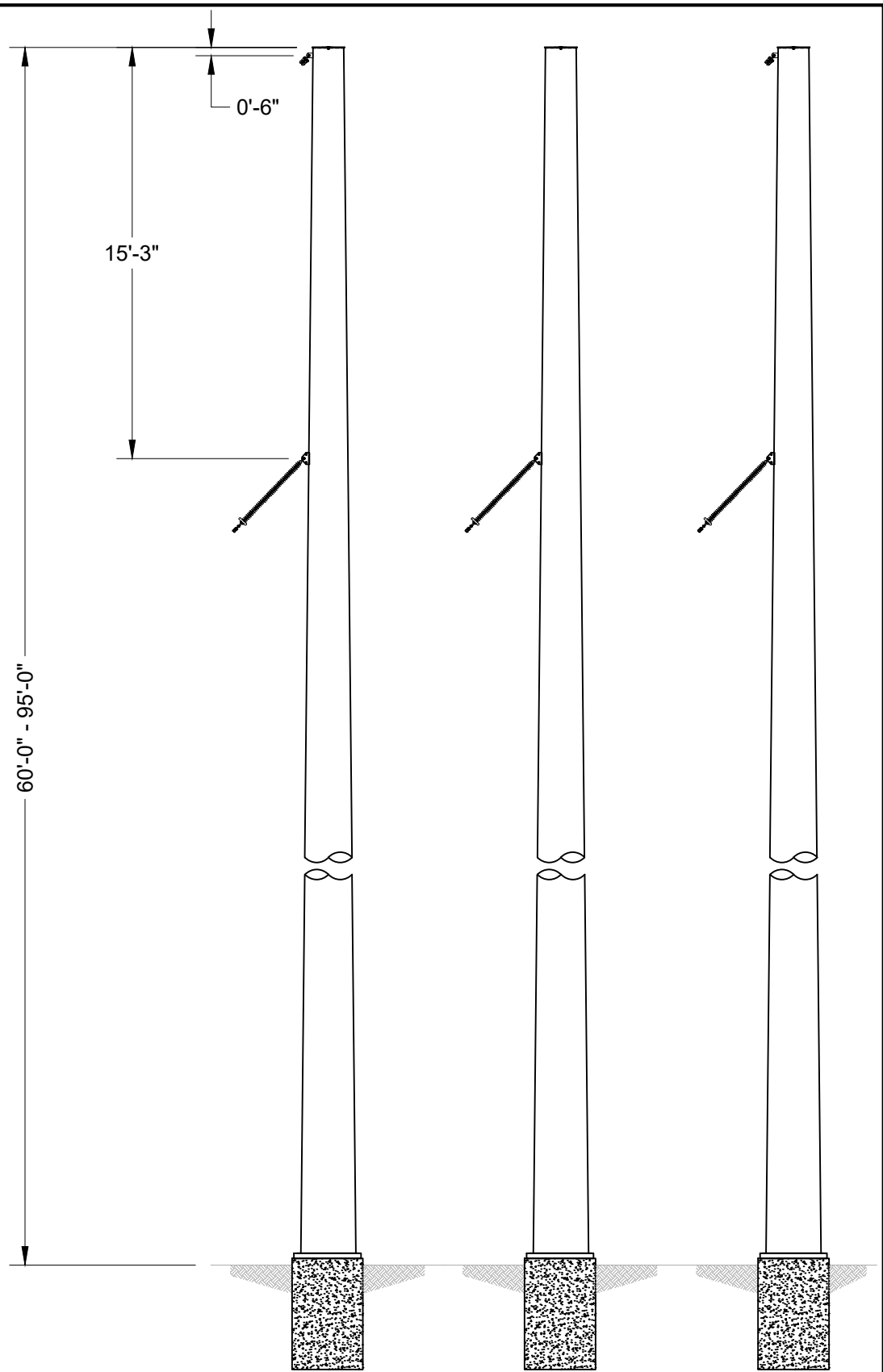


JOHNSTOWN - SEWARD 230KV
TRANSMISSION LINE REBUILD PROJECT

STEEL
H-FRAME
SUSPENSION

EXHIBIT 6

EXHIBIT 7



NOT TO SCALE

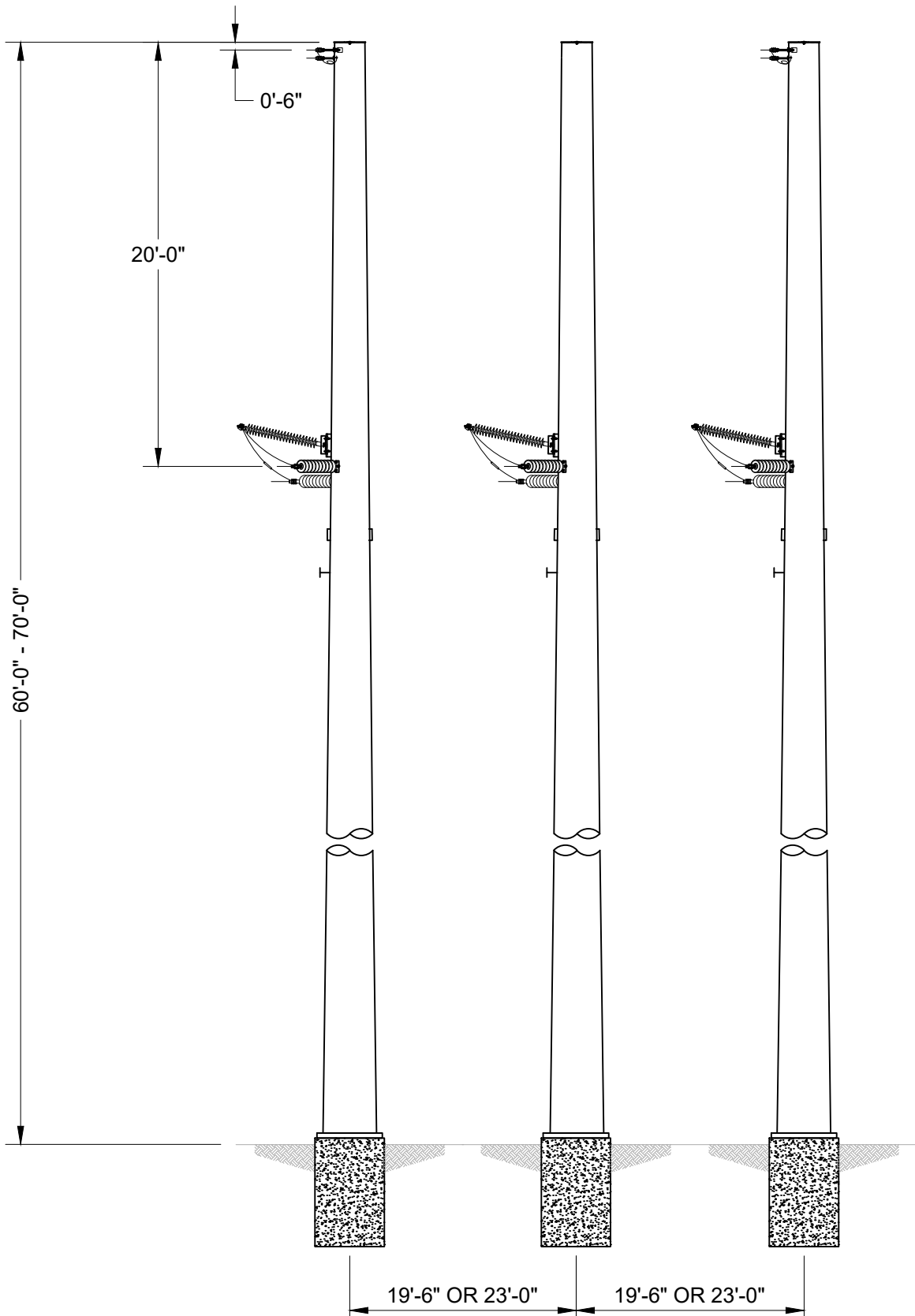
	<p>JOHNSTOWN - SEWARD 230KV TRANSMISSION LINE REBUILD PROJECT</p>
---	---

STEEL
3 POLE
ANGLE

EXHIBIT 7

19'-6" OR 23'-0" 19'-6" OR 23'-0"

EXHIBIT 8



NOT TO SCALE

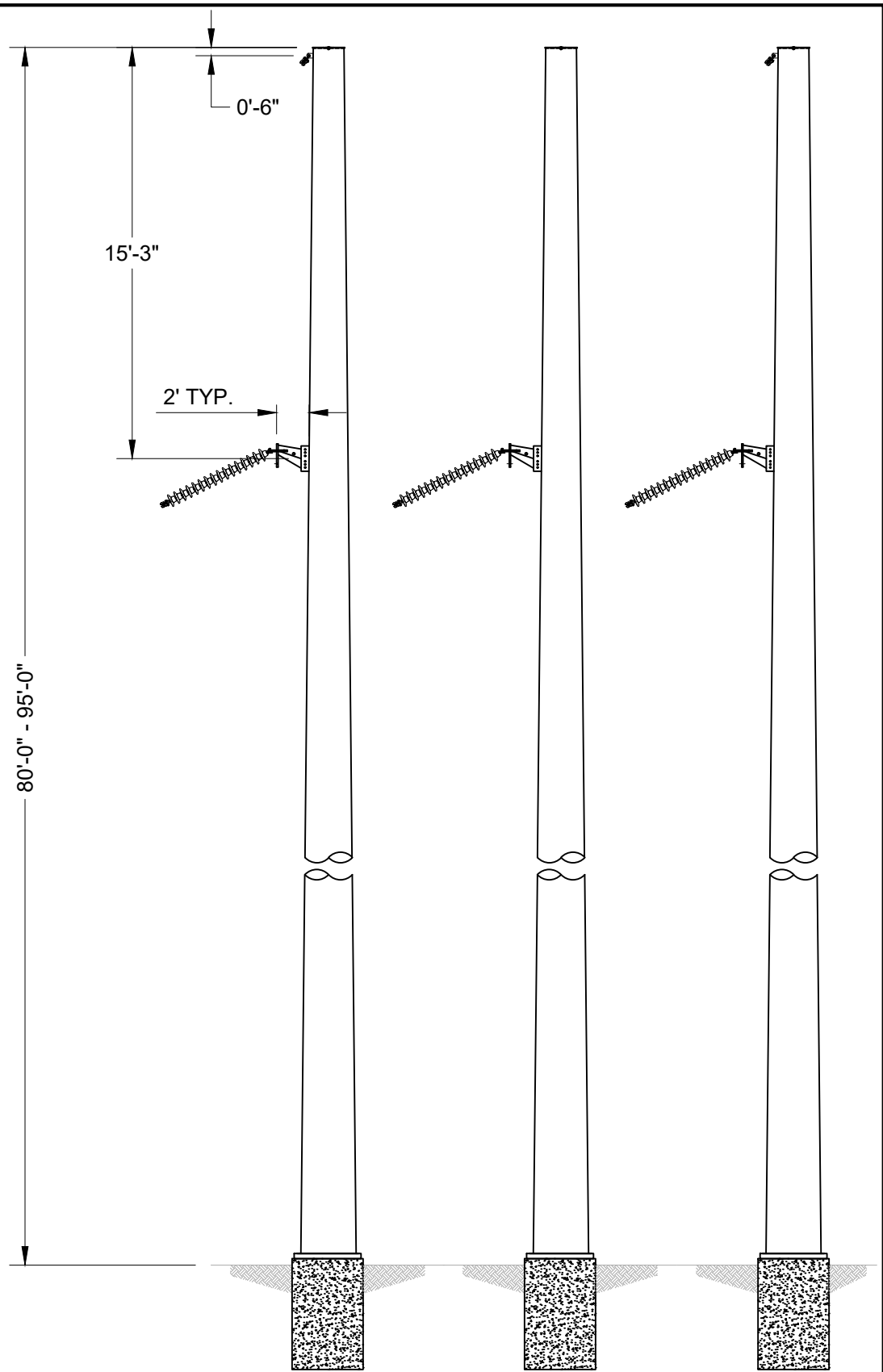


JOHNSTOWN - SEWARD 230KV
TRANSMISSION LINE REBUILD PROJECT

STEEL
3 POLE
STRAIN/DEADEND

EXHIBIT 8

EXHIBIT 9



NOT TO SCALE

	<p>JOHNSTOWN - SEWARD 230KV TRANSMISSION LINE REBUILD PROJECT</p>
---	---

STEEL
3 POLE
ANGLE WITH DAVIT ARMS

EXHIBIT 9

19'-6" OR 23'-0" 19'-6" OR 23'-0"

EXHIBIT 10



Figure 1: Active woodpecker hole on structure 7. This pole was also repaired in 2016 with a pole top cap due to extensive pole top rot.



Figure 2: A cross-arm brace or “knees and vees” has degraded, allowing the metal bracket supporting the cross arm to slide down the wood. Located at structure 15.



Figure 3: Broken insulator bells original to the construction of the line. Located at structure 43

SUMMARY RESULTS OF GROUND LINE INSPECTIONS FOR THE JOHNSTOWN-SEWARD 230kV TRANSMISSION LINE

Issue Category	Occurrences
Decay	43
Shell Rot	54
Cracking	3
Woodpecker Damage	12
Insect Damage	21
Fire Damage	3

Table 1: Pole Issue Summary

Table 1 above provides a summary of the pole issues by category and number of occurrences observed in January 2019.

Table 2: Pole Condition Inventory

Structure No.	Structure Type	Install Date	Pole Age	Pole Condition
6	2-Pole Wood H-Frame	1961	64	Shell Rot and the early stage of decay
7	2-Pole Wood H-Frame	1961	64	Shell Rot and the early stage of decay
8	2-Pole Wood H-Frame	1961	64	Shell Rot
9	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, woodpecker holes
10	2-Pole Wood H-Frame	1961	64	Early Stage of Decay, woodpecker holes, Shell rot.
11	3-Pole Wood H-Frame	1961	64	Early Stage of Decay, woodpecker holes, Shell rot.
12	2-Pole Wood H-Frame	1961	64	Shell Rot, woodpecker holes, early stage of decay.
13	2-Pole Wood H-Frame	1961	64	Shell rot, early stage of decay

14	2-Pole Wood H-Frame	1961	64	Shell Rot, woodpecker holes, Early Stage of Decay, carpenter ants, extra-large crack
15	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Fire Damage
16	3-Pole Wood H-Frame	1961	64	Shell Rot, Fire Damage
17	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
18	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, woodpecker holes, Carpenter ants
19	2-Pole Wood H-Frame	2017	8	No Comments
20	3-Pole Wood H-Frame	1961	64	Shell Rot, Decay, Carpenter Ants, woodpecker holes
21	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
22	2-Pole Wood H-Frame	1961	64	Shell rot, Early Stage of Decay, woodpecker holes, carpenter ants
23	2-Pole Wood H-Frame	2017	8	No Comments
24	2-Pole Wood H-Frame	1961	64	Shell Rot
25	3-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
26	3-Pole Wood H-Frame	1961	64	Shell Rot/ Being Removed
27	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
28	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
29	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
30	3-Pole Steel	1961	64	Steel Structure
31	3-Pole Wood H-Frame	1961	64	Shell Rot
32	2-Pole Wood H-Frame	1961	64	Shell Rot, Decay
33	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
34	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
35	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay

36	2-Pole Wood H-Frame	1961	64	Measurable Shell Rot, woodpecker holes,
37	2-Pole Wood H-Frame	2017	8	No Comments
38	2-Pole Wood H-Frame	1961	64	Shell Rot, woodpecker holes, fire damage
39	2-Pole Wood H-Frame	1961	64	Shell Rot, woodpecker holes, Early Stage of Decay
40	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
41	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
42	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, woodpecker hole
43	3-Pole Wood H-Frame	1961	64	Measurable Shell Rot, Early Stage of Decay, Carpenter Ants
44	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter ants
45	2-Pole Wood H-Frame	1961	64	Shell Rot, 3 medium woodpecker holes, carpenter ants, early stage of decay
46	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Termites, Carpenter Ants
47	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
48	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
49	2-Pole Wood H-Frame	1961	64	Shell Rot
50	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
51	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
52	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter ants, 1 large woodpecker hole
53	2-Pole Wood H-Frame	1961	64	Shell Rot
54	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
55	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
56	2-Pole Wood H-Frame	1961	64	Shell Rot

57	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
58	3-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants,
59 renumbered to structure 5	2-Pole Wood H-Frame	2012	64	Shell Rot
59 (outside Johnstown Sub	2-Pole Wood H-Frame (phase raised	1961	13	Phase Raiser
60 Outside Johnstown	2-Pole Wood H-Frame	1961	64	Rot, Early Stage of Decay, Carpenter Ants
60 renumbered to structure 4	3-Pole Steel	1961	64	Steel Structure
61 Outside Johnstown	2-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay, Carpenter Ants
61 (outside Seward Sub)	Steel Pole	2013	12	Steel Structure/ Not being replaced
62 Outside Johnstown	3-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay
63 Outside Johnstown	3-Pole Wood H-Frame	1961	64	Shell Rot, Early Stage of Decay

Table 2: Pole Inspection Results

Table 2 above notes the approximate installation dates and ages for the structures associated with the Johnstown-Seward 230 kV Transmission Line Rebuild Project.

EXHIBIT 11



Wetland Delineation and Stream Identification Report

Keystone Appalachian Transmission Company, a FirstEnergy
Company Johnstown-Seward 230 kV Transmission Line Rebuild
Project Westmoreland, Indiana, and Cambria Counties,
Pennsylvania

GAI Project Number: R230142.00, Task 001
February 2025

KATCo™

Keystone Appalachian Transmission Company
A FirstEnergy Company

Prepared by: GAI Consultants, Inc.
Pittsburgh Office
385 East Waterfront Drive
Homestead, Pennsylvania 15120-5005

Prepared for: Keystone Appalachian Transmission
Company, a FirstEnergy Company
341 White Pond Drive
Akron, Ohio 44320

Wetland Delineation and Stream Identification Report

Keystone Appalachian Transmission Company,
a FirstEnergy Company
Johnstown-Seward 230 kV Transmission Line Rebuild Project
Westmoreland, Indiana, and Cambria Counties, Pennsylvania
GAI Project Number: R230142.00, Task 001

February 2025

Prepared for:
Keystone Appalachian Transmission Company, a FirstEnergy Company
341 White Pond Drive. Akron, Ohio 44320

Prepared by:
GAI Consultants, Inc.
Pittsburgh Office
385 East Waterfront Drive
Homestead, Pennsylvania 15120-5005

Table of Contents

1.0	Introduction	1
2.0	Methods	1
2.1	Wetlands	1
2.1.1	Preliminary Data Gathering.....	1
2.1.2	Onsite Inspection	2
2.2	Waterbodies	3
2.2.1	Preliminary Data Gathering.....	3
2.2.2	Onsite Inspection	3
3.0	Results.....	4
3.1	Wetlands	4
3.1.1	Preliminary Data Gathering.....	4
3.1.2	Onsite Inspection	4
3.2	Waterbodies	5
3.2.1	Preliminary Data Gathering.....	5
3.2.2	Onsite Inspection	5
4.0	Conclusion.....	5
5.0	References	6
Table 1	Wetlands Identified Within the Project Study Area	
Table 2	Waterbodies Identified Within the Project Study Area	
Figure 1	Project Location Map	
Figure 2	Resource Location Map	
Appendix A	Wetland Photographs	
Appendix B	Waterbody Photographs	
Appendix C	Wetland Delineation Identification Forms	
Appendix D	Resumes of Field Staff	

1.0 Introduction

GAI Consultants, Inc. (GAI), on behalf of Mid-Atlantic Interstate Transmission, LLC (MAIT), a FirstEnergy Company (FE), completed a wetland delineation and stream identification survey for the Johnstown-Seward 230 kilovolt (kV) Transmission Line Rebuild Project (Project). The Project involves the rebuild and reconductoring of approximately 6.7 miles of existing overhead transmission line within an existing approximately 160-foot-wide right-of-way (ROW) for the first 3.0 miles eastward from the Seward substation and then an approximately 320-foot-wide ROW for the next 3.7 miles to the Johnstown substation. For this Project, it is assumed to require up to 10 miles of access roads for construction with approximately four miles of these access roads located outside the existing ROW.

The Project is within Westmoreland, Indiana, and Cambria Counties, Pennsylvania (PA) (Figure 1). This report details the survey of the Project study area to determine the existence of jurisdictional aquatic resources within these areas (Figure 1).

Wetland delineations and stream identification surveys were completed in July 2023, September 2024, and February 2025. The study area is defined on Figure 2.

The Project is in the following watersheds and United States Geological Survey (USGS) Hydrologic Unit Codes (HUC):

- ▶ Conemaugh River-Shannon Run, HUC: 050100071002; and
- ▶ Conemaugh River-Findley Run, HUC: 050100071001.

This report provides a discussion of the methods and results of the wetland delineation and stream identification survey. Photographs of identified wetland and waterbody features are included in Appendices A and B, respectively.

The United States Army Corps of Engineers (USACE) Wetland Determination Data Forms are provided in Appendix C, and the resumes of the field staff conducting the wetland delineations are provided in Appendix D.

2.0 Methods

2.1 Wetlands

Section 404 of the Federal Clean Water Act, as well as state regulations, protects wetlands in PA.

2.1.1 Preliminary Data Gathering

Published data was compiled and reviewed to identify previously mapped wetlands and areas that warrant further inspection during the wetland delineation fieldwork. The preliminary data gathering included a review of the following:

- ▶ USGS 7.5-minute topographic mapping: New Florence (USGS 1982), and Vintondale (USGS 1973), (Figure 1);
- ▶ USGS, National Hydrography Dataset (NHD) Streams (USGS, 2023) (Figure 2);
- ▶ United States Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) mapping (USFWS, 2024) (Figure 2);
- ▶ United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS, 2024) soil mapping (Figure 2); and
- ▶ Federal Emergency Management Agency (FEMA) floodplain maps (FEMA, 2024) (Figure 2).

USGS topographic mapping was used to identify mapped streams and the overall shape of the landscape in the Project study area to determine locations potentially supporting wetlands, such as floodplains and depressions. USGS NHD data provided the location of potential streams, which are based on the interpretation of high-altitude aerial imagery and land maps. USFWS NWI data provided the location of potential wetlands, which are based on the interpretation of high-altitude aerial imagery. USDA-NRCS soil maps identified the location and extent of mapped hydric soils that have a greater probability of containing wetlands. FEMA floodplain maps identified low-lying areas along waterbodies and thus locations that have a greater probability of containing wetlands.

2.1.2 Onsite Inspection

The methodology described in the 1987 USACE *Wetlands Delineation Manual* (USACE, 1987) as well as the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region* (Regional Supplement), version 2.0 (USACE, 2012) identifies areas meeting the definition of jurisdictional wetland by evaluating three parameters: hydrology, vegetation, and soil. Per the PA Department of Environmental Protection (DEP) wetland identification and delineation policy (PA Code Title 25 Chapter 105, Statement of Policy 105.451), the DEP has adopted the same methodology for identifying and delineating wetlands as used by the USACE. During the onsite inspection, GAI staff, trained in the USACE method of identifying and delineating wetlands, traversed the Project study area on foot to determine if any indicators of wetlands were present, including wetland hydrology, hydrophytic vegetation, and/or hydric soils. When indicators of wetlands were observed, an observation point was established, and a Wetland Determination Data Form (Data Form) was completed to determine if wetland requirements were present.

The presence of wetland hydrology was determined by examining each observation point for primary and secondary indicators of wetland hydrology. The presence of one primary indicator or two or more secondary indicators signified the presence of wetland hydrology.

Vegetation was characterized by four different strata. This included trees (more than three inches in diameter at breast height [DBH]), saplings/shrubs (less than three inches in DBH and more than 3.28 feet tall), herbs (less than 3.28 feet tall), and woody vines. The area vegetation that was sampled varied for each stratum. Trees and woody vines were sampled within a 30-foot radius. Saplings and shrubs were sampled within a 15-foot radius. Herbs were sampled within a five-foot radius.

When evaluating an area for the presence of hydrophytes (plants that grow either partially or totally submerged in water), classification of the indicator status of vegetation was based on the *2022 National Wetland Plant List, version 3.6* (USACE, 2022). The list of possible indicator statuses for plants is as follows:

- ▶ Obligate Wetland Plants (OBL): almost always occur in standing water or in saturated soils.
- ▶ Facultative Wetland Plants (FACW): usually occur in areas of prolonged flooding or require standing water or saturated soils but may on rare occasions, be found in non-wetlands.
- ▶ Facultative Plants (FAC): occur in a variety of habitats. They are equally likely to occur in wetlands and non-wetlands.
- ▶ Facultative Upland Plants (FACU): usually occur in xeric (very dry) or mesic (moderately moist) non-wetland habitats but may occasionally occur in wetlands in standing water or saturated soils.
- ▶ Obligate Upland Plants (UPL): almost never occur in standing water or in saturated soils.

The presence of hydrophytic vegetation was determined by using a Dominance Test or Prevalence Index. Hydrophytic vegetation was considered present based on the Dominance Test if more than 50 percent of present species are FAC, FACW, and/or OBL. The Prevalence Index weighs the total percent of vegetation cover based on the indicator status of each plant. Hydrophytic vegetation was considered present when the Prevalence Index was less than or equal to three.

To determine the presence of hydric soils, soil data was collected by digging a 16-inch soil pit. The soil profile was studied and described, while possible hydric indicators were examined. Soil indicators described in the *Wetlands Delineation Manual* and Regional Supplement were used to determine the presence of hydric soils. The presence of these indicators signified hydric soil.

If all three parameters (i.e., wetland hydrology, a dominance of hydrophytic vegetation, and hydric soils) were identified at a single observation point, then the area was determined to be a wetland. Once a wetland was identified, the boundary was delineated.

Wetland boundaries were determined by looking for locations in which one of the three wetland indicators would transition into an upland characteristic. When the transition was identified, a Data Form was completed in the Upland Area. Wetland boundaries were marked in the field using pink flagging labeled "wetland boundary." The locations of the flags were recorded using a Global Positioning System (GPS) unit. Each wetland was codified with a unique identifier indicating the type of aquatic resource, state where the resource is located, initials of the lead field staff, and wetland inventory number. For example, the first wetland delineated for a project in PA by an individual with the initials "JRW" would be coded WPA-JRW-001.

Wetlands were then classified using the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979), as modified for NWI Mapping Convention. This system classifies wetlands based on topographic position and vegetation type. Palustrine system wetlands found in the study area are classified as Palustrine Emergent (PEM), Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS), and Palustrine Unconsolidated Bottom (PUB), based on aerial coverage of the vegetative community across the extent of the wetland within the study area. Classification was based on the uppermost layer of vegetation that possessed an aerial coverage of 30 percent or greater (Cowardin et al., 1979).

2.2 Waterbodies

As with wetlands, Section 404 of the Clean Water Act and state regulations protect waterbodies in PA. Generally, waterbodies are defined as aquatic resources that have defined beds and banks, an ordinary high-water mark (OHWM), and contain flowing or standing water for at least a portion of the year.

2.2.1 Preliminary Data Gathering

During the preliminary data gathering, the USGS 7.5-minute topographic mapping was examined for the presence of mapped waterbodies including perennial and intermittent streams. In addition, the topographic mapping was used to identify areas likely to contain unmapped waterbodies including ephemeral streams (USGS, 1982, and 1973) (Figure 1).

2.2.2 Onsite Inspection

During the onsite inspection, the study area was traversed, concurrently with wetland delineation, and waterbodies were identified. Waterbodies were identified based on the morphological and hydrologic characteristics of the channel and the presence of aquatic macroorganisms.

When a waterbody was identified, field measurements were collected. The measurements included bank-to-bank width, bottom width, depth of OHWM, bank height, wetted width, and water depth, when apparent. When possible, a description of the substrate was also collected. The data was recorded in a field notebook. Waterbodies were delineated using white flagging marked with the GAI stream code including the state, initials of the field staff, and stream inventory number (e.g., SPA-JRW-001). The top of each bank for streams wider than 10 feet were delineated, and the centerline of smaller streams were delineated. The locations of the flags were recorded using a GPS unit.

3.0 Results

3.1 Wetlands

3.1.1 Preliminary Data Gathering

A desktop review of the available USGS 7.5-minute topographic mapping and the USFWS NWI digital data for the Project did not reveal NWI mapped wetlands located within the Project study area (USFWS, 2024).

According to the USDA-NRCS soil mapping (USDA-NRCS, 2024), 29 soil mapping units are located within the study area (Figure 2). Soil mapping units with a hydric rating included the following:

Cambria County:

- ▶ Cookport and Ernest soils, 3 to 8 percent slopes (CeB);
- ▶ Cookport and Ernest very stony soils, 0 to 8 percent slopes (CvB);
- ▶ Cookport and Ernest very stony soils, 8 to 25 percent slopes (CvD);
- ▶ Leetonia very stony loamy sand, 3 to 8 percent slopes (LtB), and
- ▶ Urban land-Udorthents complex, sloping (URC).

Indiana County:

- ▶ None.

Westmoreland County:

- ▶ Bethesda very channery silt loam, 0 to 8 percent slopes (BeB);
- ▶ Bethesda very channery silt loam, 8 to 25 percent slopes (BeD);
- ▶ Buchanan loam, 0 to 8 percent slopes, extremely stony (BuB);
- ▶ Craigsville-Buchanan complex, 0 to 8 percent slopes (CrB);
- ▶ Monongahela silt loam, 3 to 8 percent slopes (MoB);
- ▶ Philo loam, 0 to 3 percent slopes, occasionally flooded (Ph);
- ▶ Purdy silt loam, 0 to 2 percent slopes (Pu); and
- ▶ Tyler silt loam, 0 to 2 percent slopes (TyA).

3.1.2 Onsite Inspection

Indicators of wetlands were observed during the onsite inspection. A total of 40 wetlands were identified and delineated within the study area. Information regarding these wetlands can be found in Table 1. Photographs of these wetlands are provided in Appendix A. Wetland Determination Data Forms are included in Appendix C.

3.2 Waterbodies

3.2.1 Preliminary Data Gathering

A desktop review of the available USGS NHD for the Project revealed nine stream segments within the Project study area (USGS, 2023).

3.2.2 Onsite Inspection

A total of 44 stream segments were identified and delineated during the onsite inspection. Information on these delineated waterbodies and their classifications can be found in Table 2. Photographs of the waterbodies are provided in Appendix B.

4.0 Conclusion

Wetland delineations and waterbody identification field surveys were completed within the Project study area in July 2023, September 2024, and February 2025. A total of 40 wetlands and 44 stream segments were identified within the Project study area. Summaries of the features are provided in Table 1 and Table 2, and a map of their locations is provided on Figure 2. Data forms documenting the investigations are provided in Appendix C. The resume(s) of field staff conducting the wetland delineations is provided in Appendix D.

5.0 References

- Cowardin, D. M., V. Carter, F. C. Golet, and E. T. La Roe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. United States Department of the Interior, Fish and Wildlife Service. Publication No. FWS/OBS 79/31. Washington, DC
- Federal Emergency Management Agency. 2024. National Flood Hazard Layer Web Map Service (WMS). Available online at <https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmz> download.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. 2024. *Soil Survey Geographic (SSURGO) Database for Westmoreland, Indiana, and Cambria Counties, Pennsylvania*. Available online at <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.
- United States Army Corps of Engineers. 1987. *Corps of Engineers Wetlands Delineation Manual*. United States Department of the Army, United States Army Engineer Waterways Experiment Station. Wetlands Research Program, Environmental Laboratory. Technical Report Y-87-1. Vicksburg, Mississippi.
- United States Army Corps of Engineers. 2007. *Jurisdictional Determination Form Instructional Guidebook*. Available online at https://www.nap.usace.army.mil/Portals/39/docs/regulatory/jd/jd_guidebook_051207final.pdf.
- United States Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0*. Editors: J. F. Berkowitz, J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-12-9. Vicksburg, Mississippi: United States Army Engineer Research and Development Center.
- United States Army Corps of Engineers. 2022. National Wetland Plant List, version 3.6 <http://wetland-plants.usace.army.mil/>. Available online at https://wetland-plants.sec.usace.army.mil/static/reports/NWPL%20Cover%20Page%20EMP_v3.pdf.
- United States Fish and Wildlife Service. 2024. *National Wetlands Inventory for Pennsylvania*. Washington, D.C.: U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation. Available online at <http://www.fws.gov/wetlands/Data/Mapper.html>.
- United States Geological Survey. 2023. *National Hydrography Dataset* (ver. USGS National Hydrography Dataset Best Resolution (NHD) for Hydrologic Unit (HU) 4 - 2001 (published 20191002)). Available online at <https://www.usgs.gov/national-hydrography/access-national-hydrography-products>.
- United States Geological Survey. 1973 Vintondale 7.5-Minute Topographic Quadrangle (1:24,000).
- United States Geological Survey. 1982 New Florence 7.5-Minute Topographic Quadrangle (1:24,000).

TABLES

Table 1
Wetlands Identified Within the Project Study Area

Wetland I.D. ¹	Latitude ²	Longitude ²	Wetland Classification ³	Size (acres) ⁴	Open-Ended ⁵	Exceptional Value (EV) Wetland ⁶
WPA-AMK-001	40.404365	-79.005535	PEM	0.051	Yes	No
WPA-JRW-001	40.402558	-78.924716	PEM	0.171	Yes	Yes
WPA-JRW-002	40.402991	-78.922666	PEM	0.098	Yes	Yes
WPA-JRW-003	40.403829	-78.917897	PEM	0.147	Yes	Yes
WPA-JRW-004	40.411522	-78.965843	PEM	0.001	No	Yes
WPA-JRW-005	40.411374	-78.967016	PEM	0.005	No	No
WPA-JRW-006	40.411573	-78.968024	PEM	0.023	No	Yes
WPA-JRW-007	40.412848	-78.973961	PEM	0.003	No	No
WPA-JRW-008	40.414687	-78.982047	PEM	0.036	No	Yes
WPA-JRW-009	40.415227	-78.981660	PEM	0.022	No	Yes
WPA-JRW-010	40.406101	-78.996877	PEM	0.017	No	Yes
WPA-JRW-011	40.405603	-78.997593	PEM	0.007	No	Yes
WPA-JRW-012	40.402109	-79.002869	PEM	0.007	No	Yes
WPA-JRW-013	40.400152	-79.012201	PEM	0.010	No	Yes
WPA-JRW-014	40.400108	-79.015259	PEM	4.402	Yes	Yes
WPA-JRW-015	40.401216	-79.01835	PEM	0.139	Yes	Yes
WPA-JRW-016	40.401378	-79.019328	PSS	0.026	Yes	No
WPA-JRW-017	40.402065	-79.021124	PEM	0.083	Yes	No
WPA-JRW-018	40.402633	-79.021733	PEM	0.035	Yes	Yes
WPA-JRW-019	40.402702	-79.022227	PEM	0.063	No	No
WPA-JRW-020	40.402759	-79.022866	PEM	0.092	No	Yes
WPA-JRW-021	40.403261	-79.023384	PEM/PSS	0.740/1.004	Yes	Yes
WPA-JRW-022	40.404617	-79.026892	PEM	0.025	No	No
WPA-JRW-023	40.404744	-79.027652	PEM	0.196	Yes	No
WPA-JRW-024	40.405087	-79.018558	PEM	0.029	Yes	No
WPA-JRW-025	40.404573	-79.016562	PFO	0.027	No	No
WPA-JRW-026	40.404394	-79.016121	PEM	0.004	No	Yes
WPA-JRW-027	40.404247	-79.014989	PEM	0.056	No	No
WPA-JRW-028	40.404672	-79.013385	PEM	0.027	No	No
WPA-REW-001	40.418430	-78.986285	PEM	0.008	No	Yes
WPA-REW-002	40.418122	-78.983491	PEM	0.049	Yes	Yes
WPA-REW-003	40.404300	-79.026102	PEM	0.078	No	No
WPA-REW-004	40.404473	-79.026411	PEM	0.009	No	No
WPA-REW-005	40.405276	-79.025664	PEM	0.439	No	No
WPA-REW-006	40.405329	-79.026144	PEM	0.014	Yes	No
WPA-REW-007	40.405818	-79.025790	PEM	0.071	Yes	No
WPA-REW-008	40.406018	-79.025295	PFO	0.270	Yes	No

WPA-REW-009	40.405275	-79.024802	PFO	0.687	Yes	No
WPA-REW-010	40.405004	-79.026663	PEM	0.218	Yes	No
WPA-REW-011	40.404043	-79.026275	PEM	0.043	No	No

Notes:

1. GAI map designation.
2. Coordinates provided in North American Datum, 1983.
3. Based on Cowardin Classification system (Cowardin et al., 1979): PEM- Palustrine Emergent, PSS- Palustrine Scrub-Shrub, and PFO- Palustrine Forested.
4. Wetland size as delineated in the field and measured using Geographic Information System (GIS) unit within study area.
5. Open-ended wetlands extend outside the Project study area.
6. Wetlands are classified as exceptional value (EV) according to 25 Pa. Code §105.17.

Table 2
Waterbodies Identified Within the Project Study Area

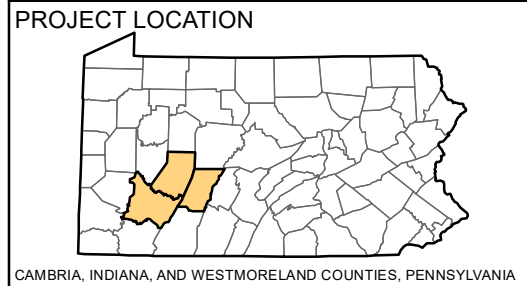
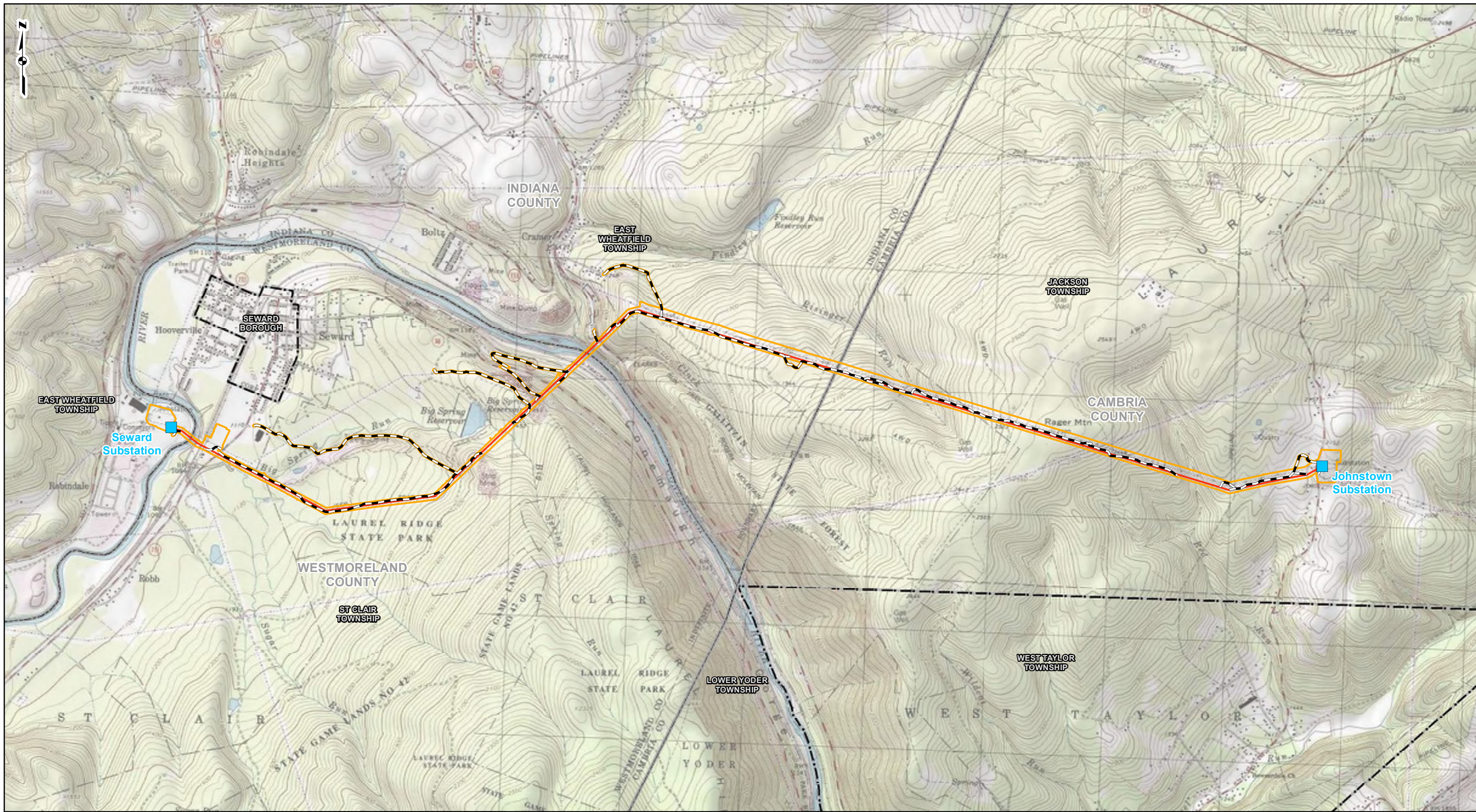
GAI I.D. ¹	Waterbody	Stream Type	Designated Use and/or Existing Use Stream Classification ²	Wild Trout ^{3,7}	Stocked Trout ⁴	Bank-to-Bank Width (feet) ⁵	Channel Depth (feet)	Bottom Width (feet)	Water Depth (inches)	Latitude ⁶	Longitude ⁶
SPA-JRW-001	Red Run	Perennial	HQ-CWF	Yes	No	8	3	4	2	40.403267	-78.929256
SPA-JRW-002	UNT to Red Run	Perennial	HQ-CWF	Yes	No	4	1	2	5	40.402593	-78.924625
SPA-JRW-003	UNT to Red Run	Intermittent	HQ-CWF	Yes	No	3	2	2	2	40.402642	-78.924540
SPA-JRW-004	UNT to Red Run	Perennial	HQ-CWF	Yes	No	4	2	1.5	5	40.403001	-78.922652
SPA-JRW-005	UNT to Red Run	Intermittent	HQ-CWF	Yes	No	3	1	1	2	40.403771	-78.917978
SPA-JRW-006 & SPA-JRW-006 ext	UNT to Red Run	Intermittent	HQ-CWF	Yes	No	3	0.5	1	2	40.404229	-78.917945
SPA-JRW-007	UNT to Red Run	Intermittent	HQ-CWF	Yes	No	3	2	1	1	40.403854	-78.918038
SPA-JRW-008	UNT to Red Run	Intermittent	HQ-CWF	Yes	No	3	1	1.5	1	40.403755	-78.91778
SPA-JRW-011	Risinger Run	Intermittent	HQ-CWF	Yes	No	4	2	2	0	40.409412	-78.956792
SPA-JRW-012	UNT Risinger Run	Ephemeral	HQ-CWF	Yes	No	2	1	0.5	0.5	40.411658	-78.965771
SPA-JRW-013	UNT Risinger Run	Intermittent	HQ-CWF	Yes	No	2	0.5	1	0	40.411896	-78.967915
SPA-JRW-014	UNT to Findley Run	Intermittent	HQ-CWF	Yes	No	3	1	1	0	40.414899	-78.981904
SPA-JRW-015	Conemaugh River	Perennial	WWF	No	No	230	4	222	48	40.411694	-78.989529
SPA-JRW-016	UNT to Big Spring Run	Intermittent	CWF	Yes	No	4	1	1	1	40.406090	-78.997176
SPA-JRW-017	UNT to Big Spring Run	Intermittent	CWF	Yes	No	3	0.5	1.5	1	40.405993	-78.996954
SPA-JRW-018	UNT to Big Spring Run	Intermittent	CWF	Yes	No	3	1	1.5	3	40.405951	-78.997312
SPA-JRW-019	UNT to Big Spring Run	Intermittent	CWF	Yes	No	3	3	1	2	40.40582	-78.740039
SPA-JRW-020	UNT to Big Spring Run	Intermittent	CWF	Yes	No	3	2	1	2	40.405766	-78.99757
SPA-JRW-021	UNT to Big Spring Run	Intermittent	CWF	Yes	No	3	3	1.5	2	40.405616	-78.99759
SPA-JRW-022	UNT to Big Spring Run	Perennial	CWF	Yes	No	4	2	1.5	2	40.405593	-78.997826
SPA-JRW-023	UNT to Big Spring Run	Intermittent	CWF	Yes	No	3	1	1	1	40.405351	-78.998623
SPA-JRW-024	UNT to Big Spring Run	Intermittent	CWF	No	No	2	0.5	0.5	1	40.402065	-79.002581
SPA-JRW-025	UNT to Big Spring Run	Intermittent	CWF	No	No	3	1	1	1	40.401704	-79.003005
SPA-JRW-026	UNT to Big Spring Run	Intermittent	CWF	No	No	3	1	1	2	40.40032	-79.013592
SPA-JRW-027	UNT to Big Spring Run	Intermittent	CWF	No	No	1	1	1	1	40.400143	-79.012768
SPA-JRW-028	UNT to Big Spring Run	Intermittent	CWF	No	No	4	0.5	1.5	2	40.399876	-79.013365
SPA-JRW-029	UNT to Big Spring Run	Intermittent	CWF	No	No	3	1	1.5	3	40.399731	-79.013412
SPA-JRW-030	UNT to Big Spring Run	Intermittent	CWF	No	No	2	2	1	1	40.399683	-79.014302
SPA-JRW-031	UNT to Big Spring Run	Perennial	CWF	No	No	4	1	2	2	40.399729	-79.014576
SPA-JRW-032	UNT to Big Spring Run	Perennial	CWF	No	No	3	2	1.5	3	40.400236	-79.017171
SPA-JRW-033	UNT to Big Spring Run	Perennial	CWF	No	No	4	2	2	2	40.400334	-79.015832
SPA-JRW-034	UNT to Big Spring Run	Perennial	CWF	No	No	4	2	1.5	2	40.401161	-79.018427
SPA-JRW-035	UNT to Big Spring Run	Intermittent	CWF	No	No	2	2.5	1	2	40.401287	-79.018208
SPA-JRW-036	Big Spring Run	Perennial	CWF	No	No	8	2	5	6	40.402518	-79.021096
SPA-JRW-037	UNT to Big Spring Run	Perennial	CWF	No	No	9	2	7	3	40.402813	-79.022945

GAI I.D. ¹	Waterbody	Stream Type	Designated Use and/or Existing Use Stream Classification ²	Wild Trout ^{3,7}	Stocked Trout ⁴	Bank-to-Bank Width (feet) ⁵	Channel Depth (feet)	Bottom Width (feet)	Water Depth (inches)	Latitude ⁶	Longitude ⁶
SPA-JRW-038	Big Spring Run	Perennial	CWF	No	No	9	1	7	4	40.403069	-79.023639
SPA-JRW-039	Big Spring Run	Perennial	CWF	No	No	6	2	4	3	40.403077	-79.023229
SPA-JRW-040	Conemaugh River	Perennial	WWF	No	No	185	4	167	48	40.405248	-79.028514
SPA-JRW-041	Big Spring Run	Perennial	CWF	No	No	12	3	3	2	40.404253	-79.015967
SPA-JRW-042	UNT to Conemaugh River	Ephemeral	WWF	No	No	6	1	2	0	40.410737	-78.99357
SPA-REW-001	UNT to Red Run	Intermittent	HQ-CWF	Yes	No	4	2	2	1.5	40.404751	-78.91824
SPA-REW-002	UNT to Findley Run	Intermittent	HQ-CWF	Yes	No	3.5	1	1.5	1	40.418628	-78.98589
SPA-REW-003	UNT to Findley Run	Ephemeral	HQ-CWF	Yes	No	3	0.5	1.5	0.5	40.418007	-78.987372
SPA-REW-004	UNT to Findley Run	Intermittent	HQ-CWF	Yes	No	3	1	1.5	3	40.418100	-78.987380

Notes:

1. GAI map designation.
2. Designated use obtained from PA Code Title 25, Chapter 93 and eMapPA: HQ-CWF-High Quality Cold Water Fishes, WWF-Warm Water Fishes.
3. As classified by the PA Fish and Boat Commission (PFBC) as a Class A Wild Trout Waters, dated February 12, 2025, Bureau of Fisheries website: http://www.fishandboat.com/Fish/PennsylvaniaFishes/Trout/Documents/trout_repro.pdf or as a Stream Section that Supports Natural Reproduction of Trout, dated February 2025, Bureau of Fisheries website: http://www.fish.state.pa.us/trout_repro.pdf.
4. Regional listings of approved trout waters information provided by PFBC website: <https://www.fishandboat.com/Fishing/Regulations/Pages/Trout-Regs.aspx>.
5. Approximate width of stream from bank-to-bank, measured in feet.
6. North American Datum, 1983.
7. Tributary to a stream segment identified as a stream section that supports Natural Reproduction of Trout.

FIGURES



REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: NEW FLORENCE (1982) AND VINTONDALE (1973), PENNSYLVANIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 02/2025.

LEGEND

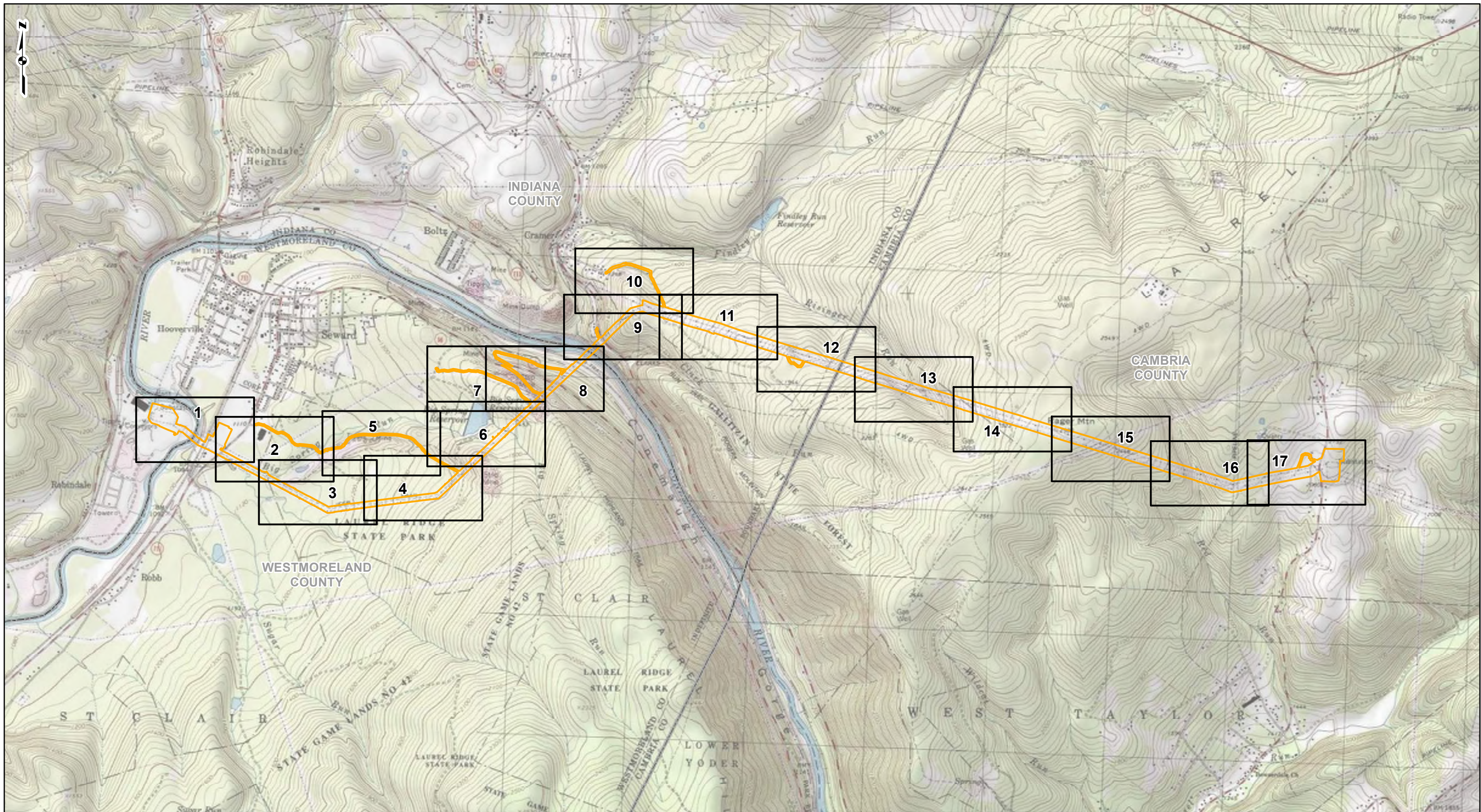
Existing Substation	Study Area
Existing Transmission To Be Rebuilt	County Boundary
Access Road	Municipal Boundary

0 1,250 2,500 5,000 Feet

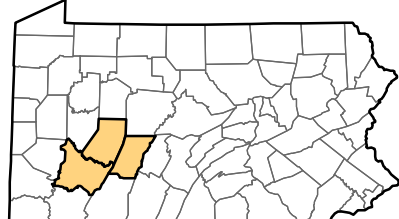
**FIGURE 1
PROJECT LOCATION MAP**

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL DATE: 2/27/2025
CHECKED: JAP APPROVED:






PROJECT LOCATION

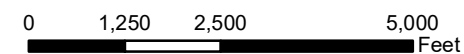


CAMBRIA, INDIANA, AND WESTMORELAND COUNTIES, PENNSYLVANIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: NEW FLORENCE (1982) AND VINTONDALE (1973), PENNSYLVANIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 02/2025.

LEGEND

-  Study Area
-  Sheet Index
-  County Boundary



**FIGURE 2
RESOURCE LOCATION MAP
SHEET INDEX**

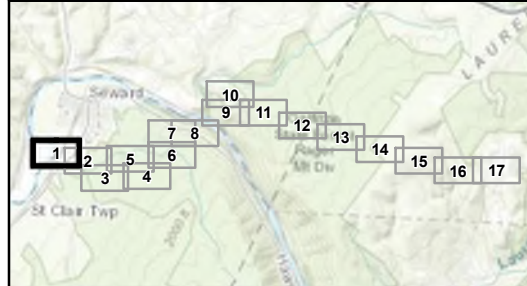
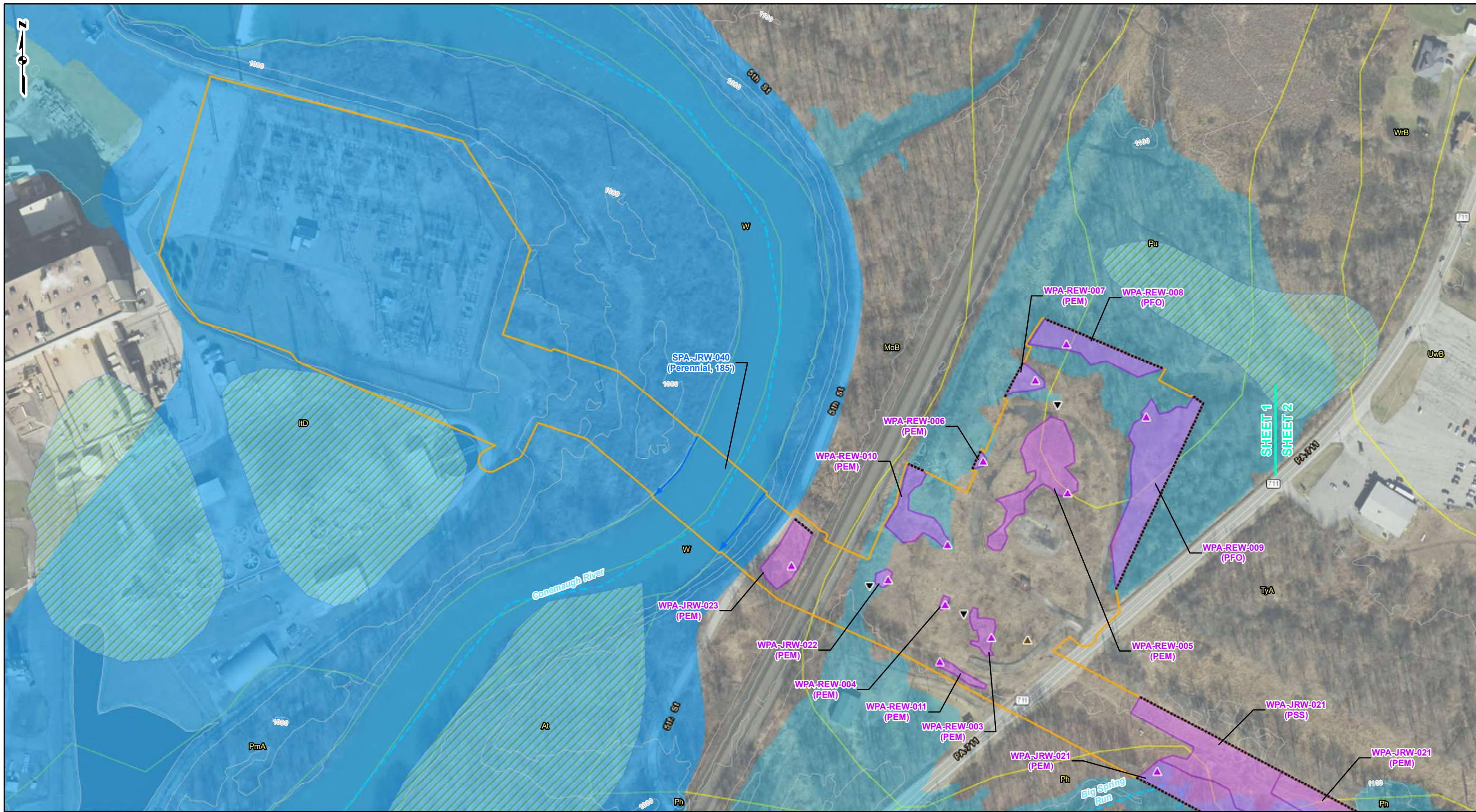


JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION



DRAWN BY: KEL
CHECKED: JAP

DATE: 2/27/2025
APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND			
	Groundwater Seep		Wetland Data Point
	Existing Culvert		Stormwater Feature
	Soil Test Pit		Stream
	Upland Data Point		Open-Ended Boundary
	Wetland		Study Area
	100-Year FEMA Floodplain		NHD Stream
	FEMA Floodway		NWI Wetland
	Soil Type Boundary		10-Ft Contour

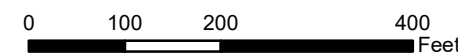
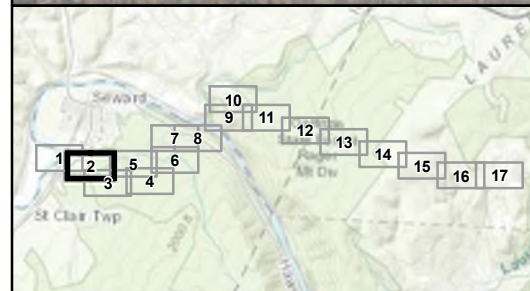
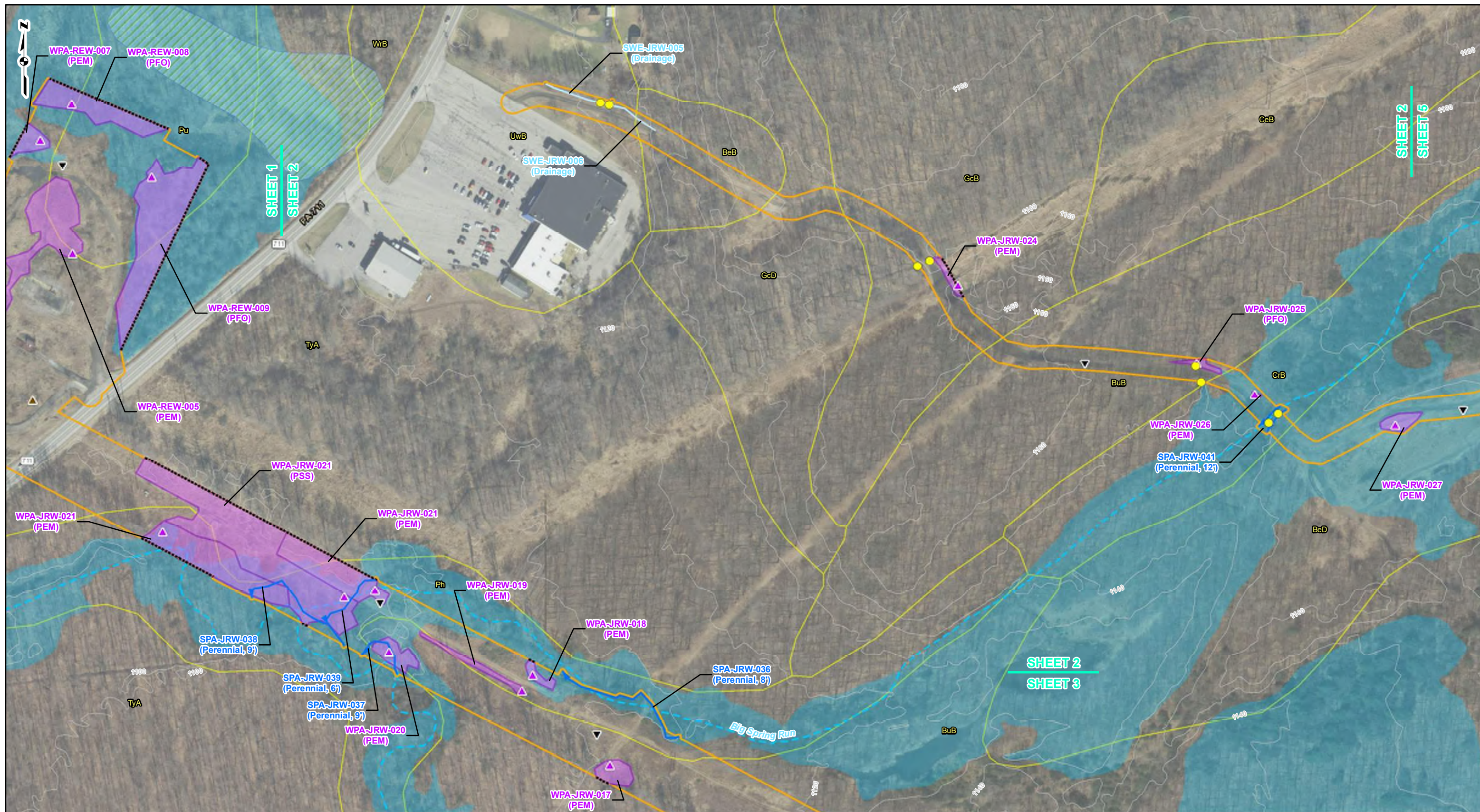


FIGURE 2
RESOURCE LOCATION MAP
SHEET 1 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL
CHECKED: JAP

DATE: 2/27/2025
APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

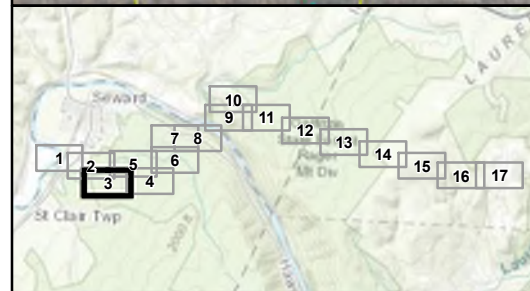
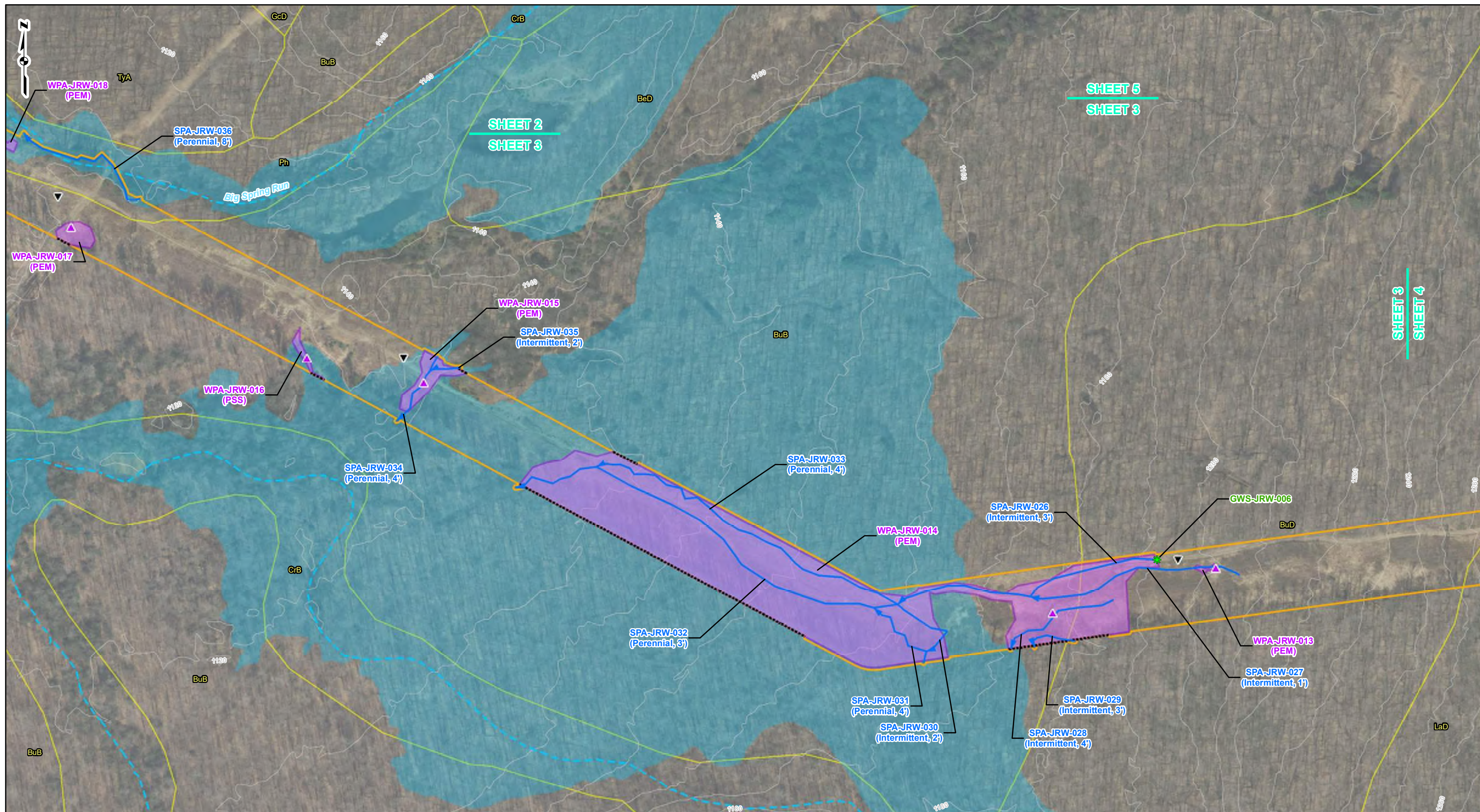
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 2 OF 17

JOHNSTOWN-SEWARD
 230kV TRANSMISSION LINE
 REBUILD PROJECT
 FIRSTENERGY CORPORATION

DRAWN BY: KEL
 CHECKED: JAP

DATE: 2/27/2025
 APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

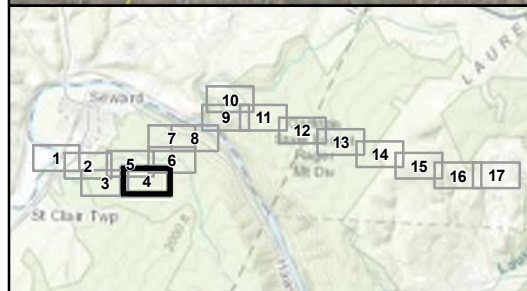
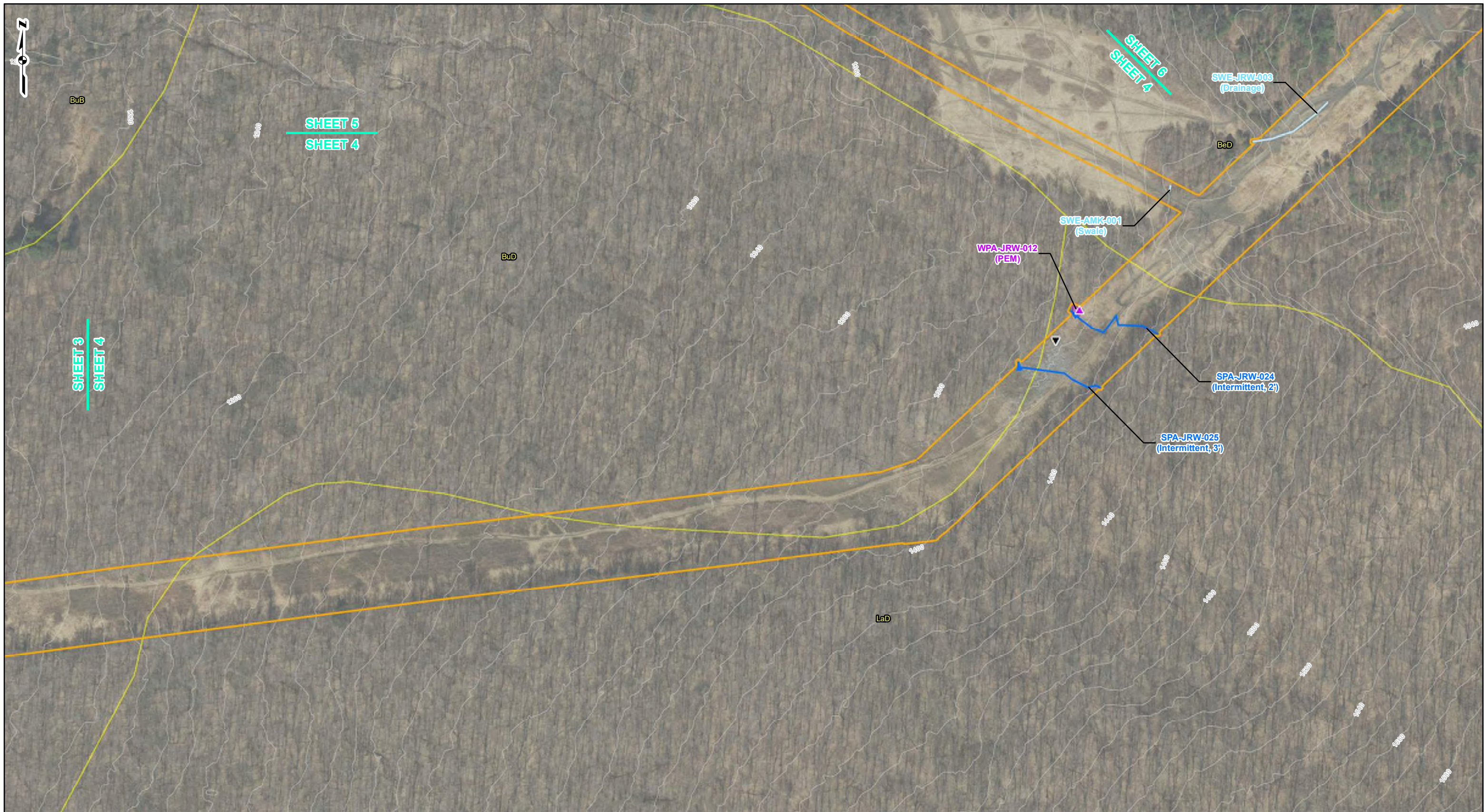
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 3 OF 17

JOHNSTOWN-SEWARD
 230kV TRANSMISSION LINE
 REBUILD PROJECT
 FIRSTENERGY CORPORATION

DRAWN BY: KEL
 CHECKED: JAP

DATE: 2/27/2025
 APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

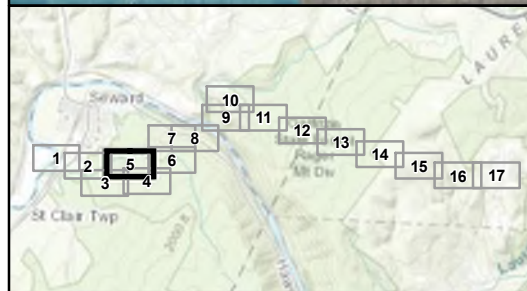
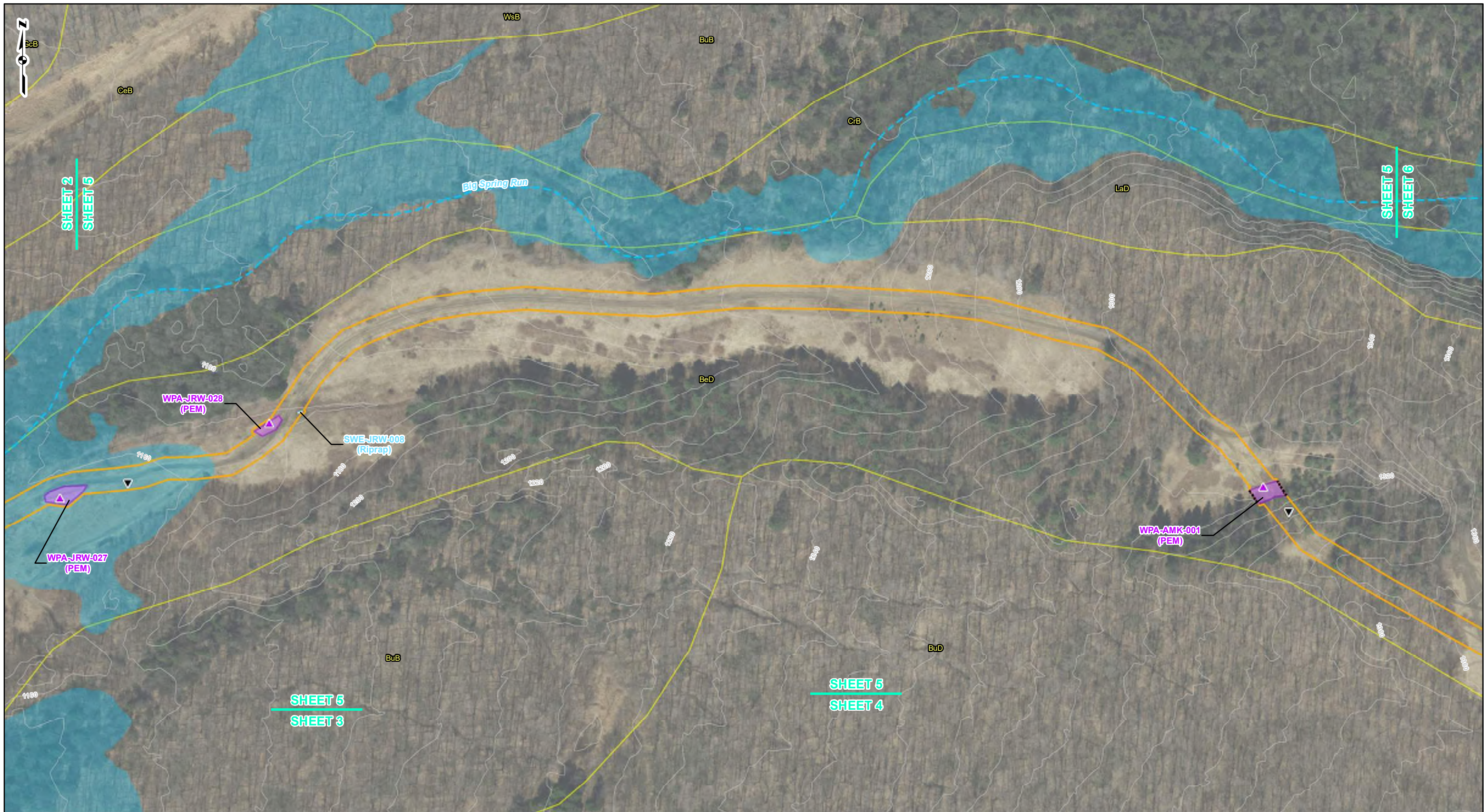
Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400
Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 4 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL	DATE: 2/27/2025
CHECKED: JAP	APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

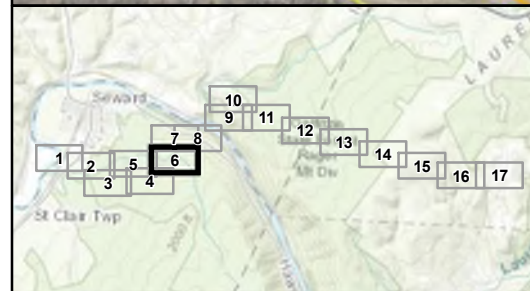
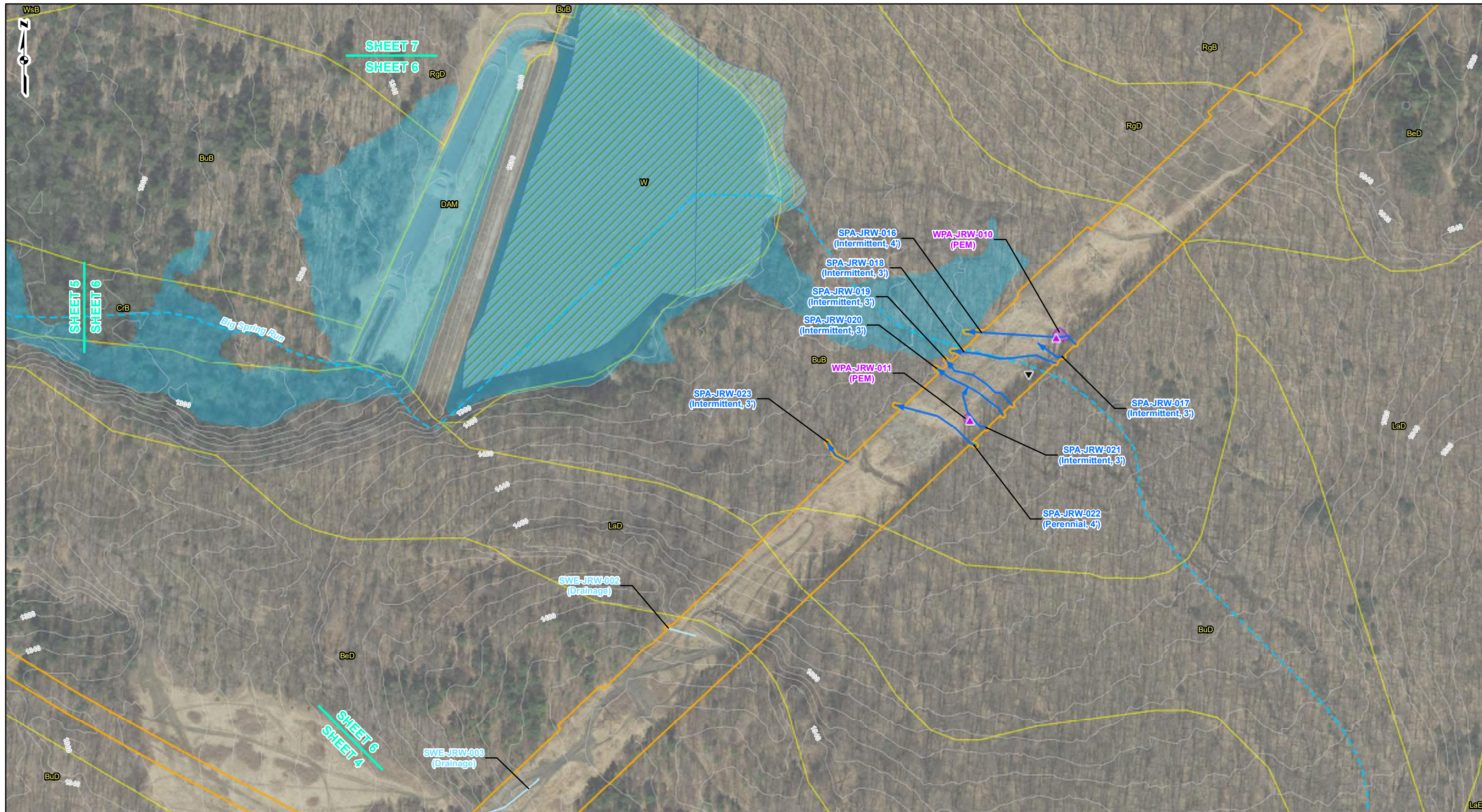
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 5 OF 17

JOHNSTOWN-SEWARD
 230kV TRANSMISSION LINE
 REBUILD PROJECT
 FIRSTENERGY CORPORATION

DRAWN BY: KEL
 CHECKED: JAP

DATE: 2/27/2025
 APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

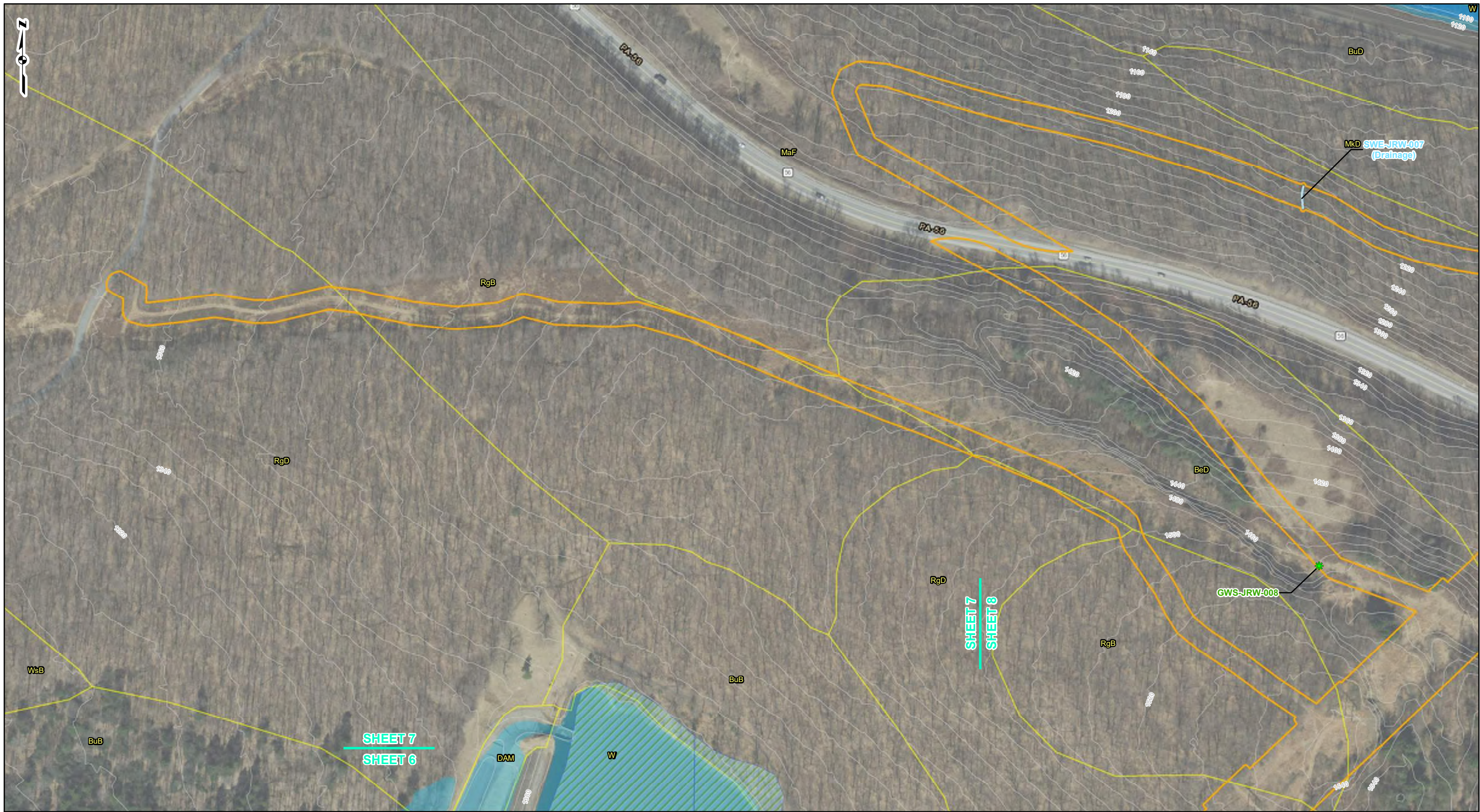
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 6 OF 17

JOHNSTOWN-SEWARD
 230kV TRANSMISSION LINE
 REBUILD PROJECT
 FIRSTENERGY CORPORATION

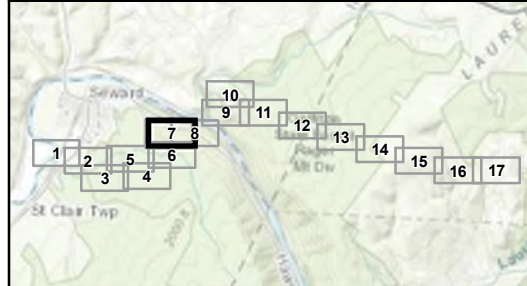
DRAWN BY: KEL
 CHECKED: JAP

DATE: 2/27/2025
 APPROVED:



SHEET 7
SHEET 6

SHEET 7
SHEET 8



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 7 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

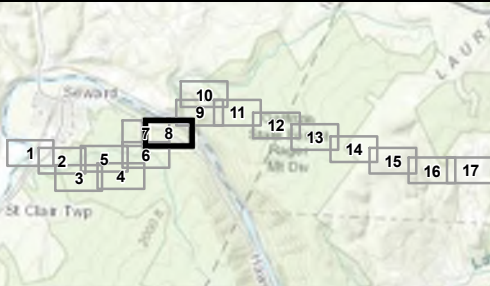
DRAWN BY: KEL
CHECKED: JAP

DATE: 2/27/2025
APPROVED:



SHEET 7
SHEET 8

SHEET 9
SHEET 8



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

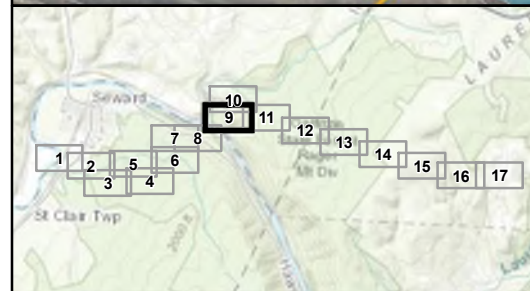
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 8 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL
CHECKED: JAP

DATE: 2/27/2025
APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

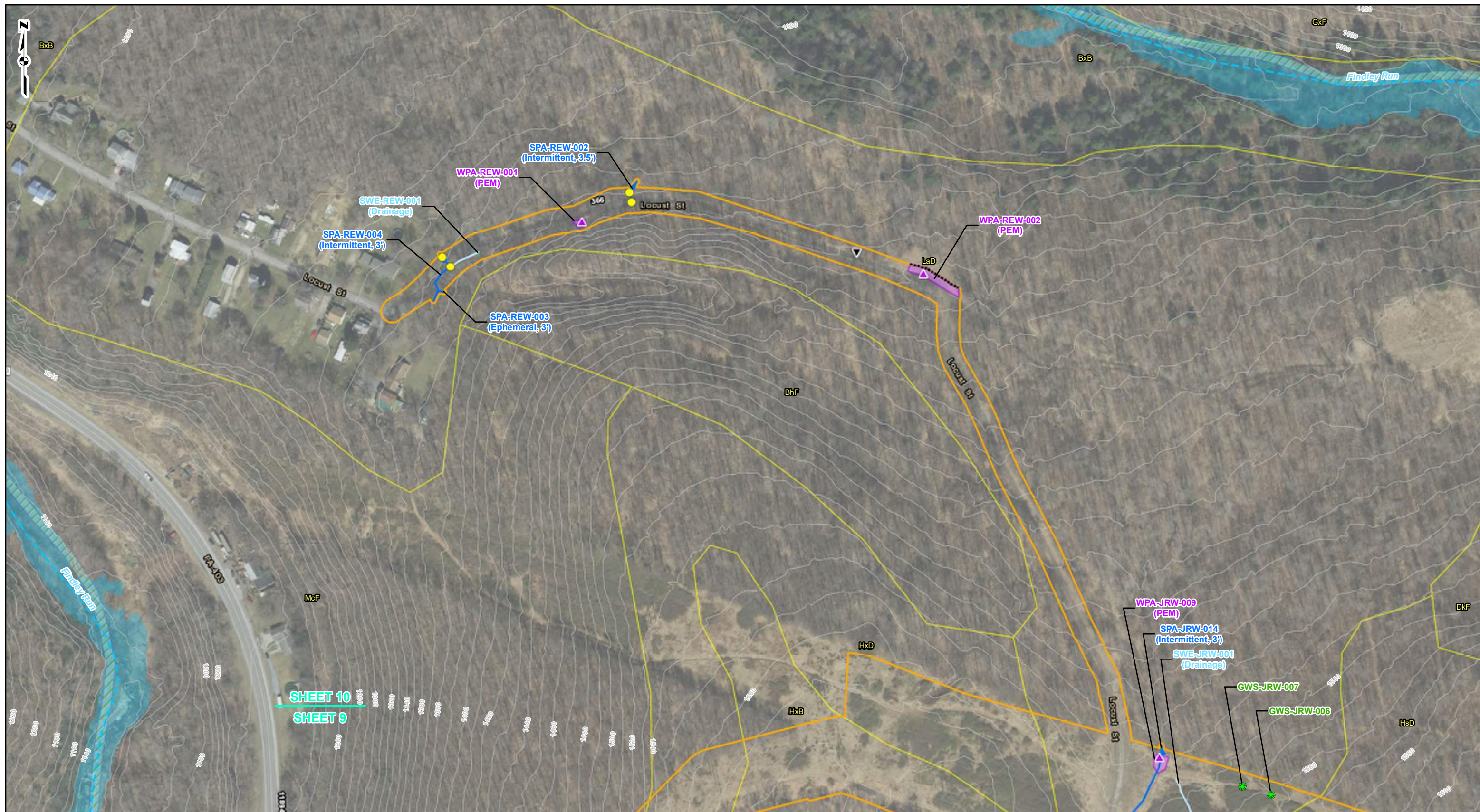
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 9 OF 17

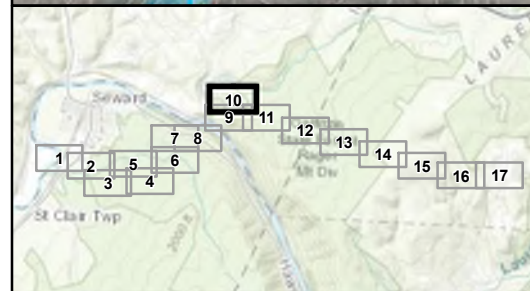
JOHNSTOWN-SEWARD
 230kV TRANSMISSION LINE
 REBUILD PROJECT
 FIRSTENERGY CORPORATION

DRAWN BY: KEL
 CHECKED: JAP

DATE: 2/27/2025
 APPROVED:



SHEET 10
SHEET 9



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

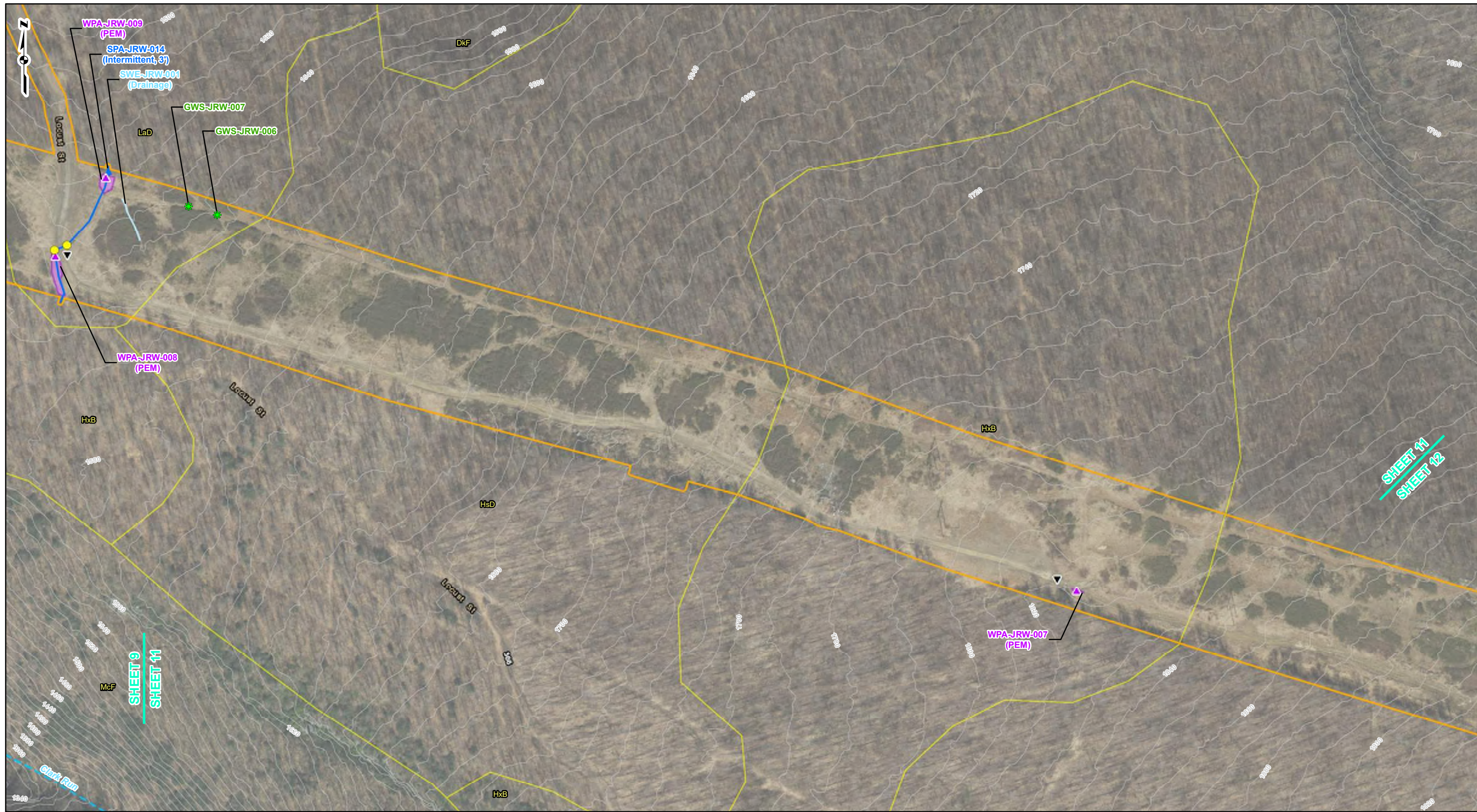
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 10 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

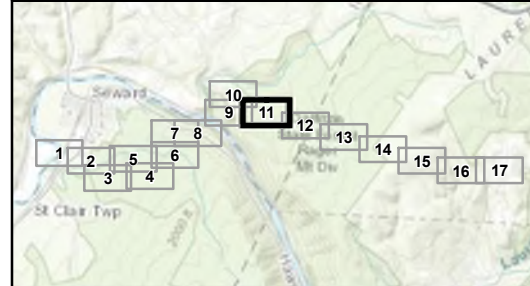
DRAWN BY: KEL
CHECKED: JAP

DATE: 2/27/2025
APPROVED:



SHEET 11
SHEET 12

SHEET 9
SHEET 11



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

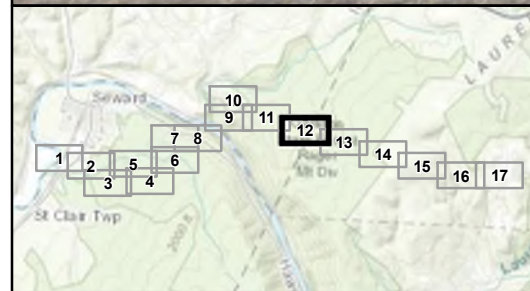
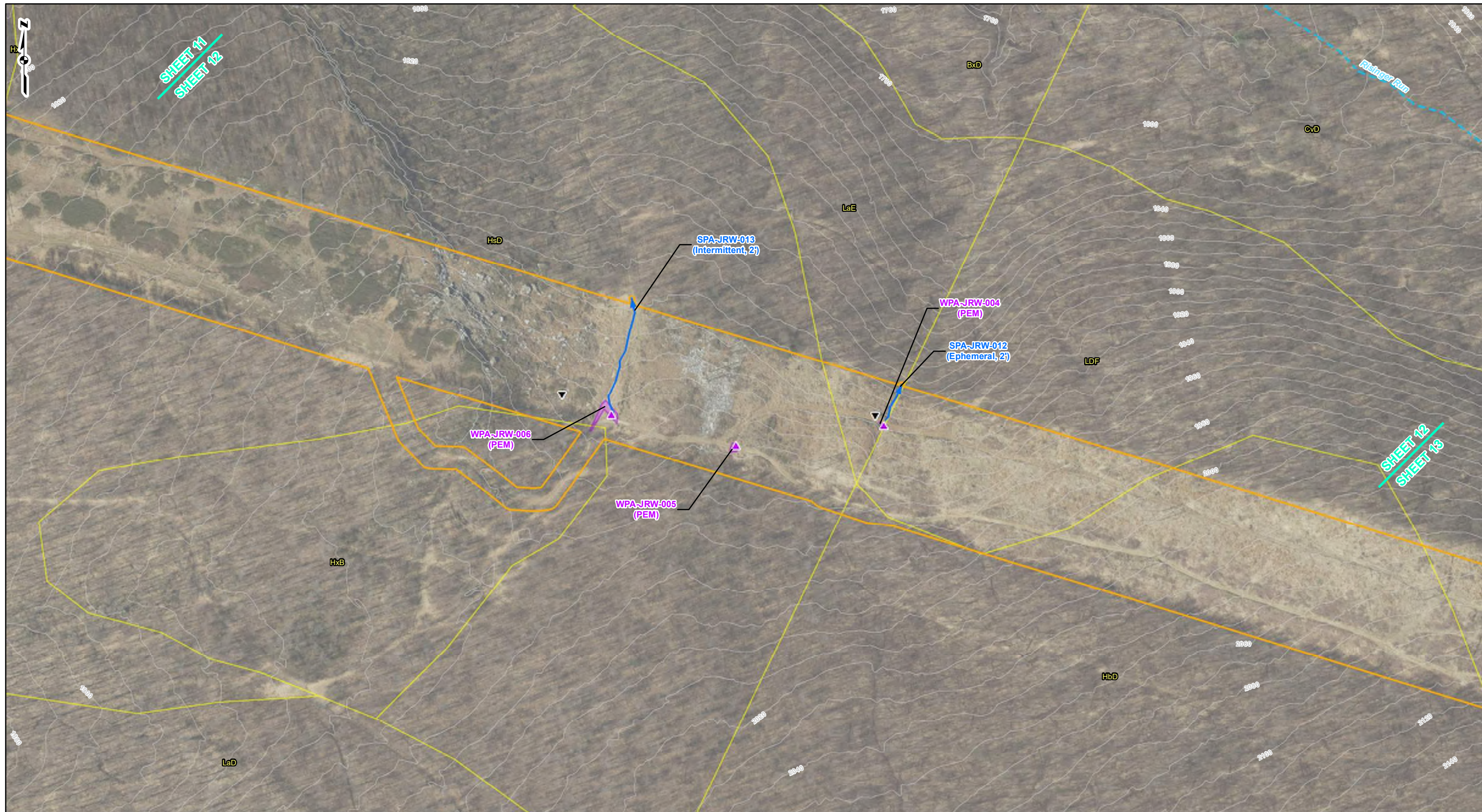
0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 11 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL
CHECKED: JAP

DATE: 2/27/2025
APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

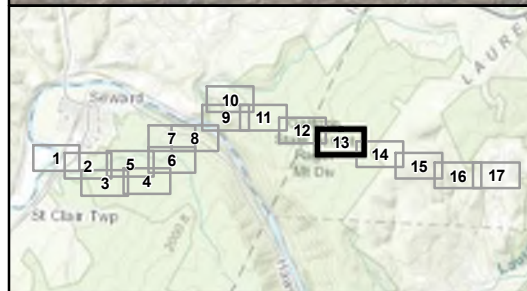
Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400
Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 12 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL	DATE: 2/27/2025
CHECKED: JAP	APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400
Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 13 OF 17

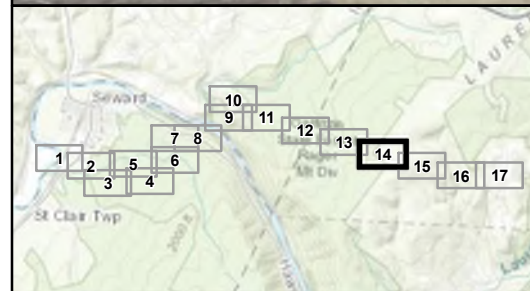
JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL DATE: 2/27/2025
CHECKED: JAP APPROVED:



SHEET 13
SHEET 14

SHEET 14
SHEET 15



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

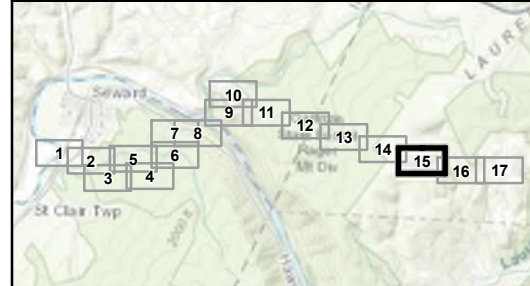
Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400
Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 14 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL	DATE: 2/27/2025
CHECKED: JAP	APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

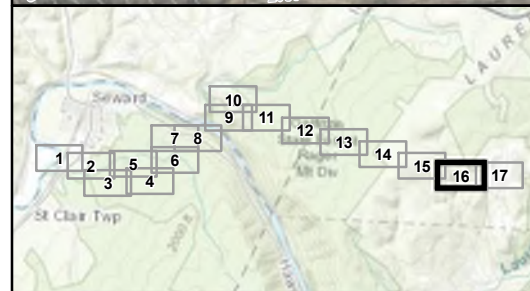
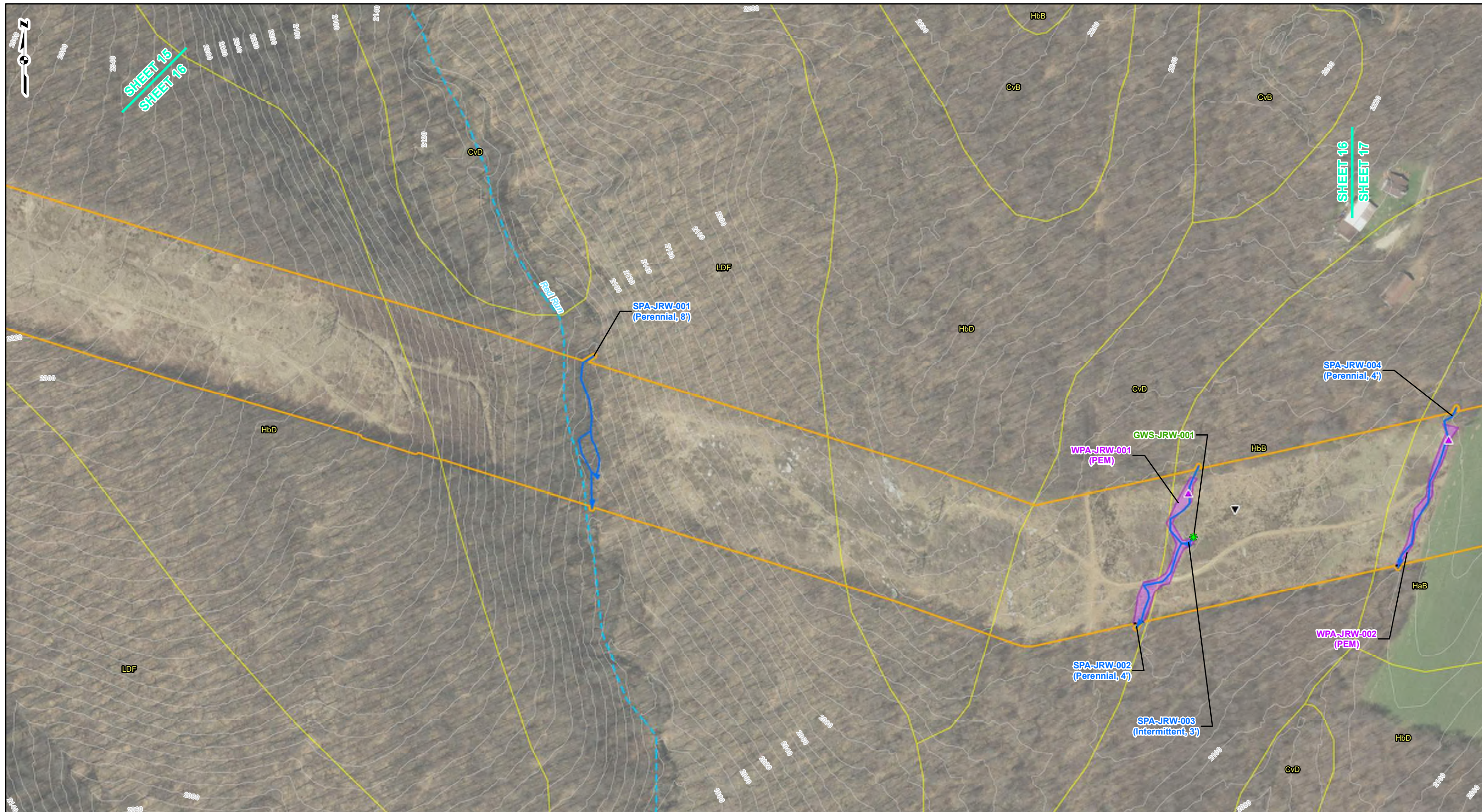
Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400
Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 15 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL	DATE: 2/27/2025
CHECKED: JAP	APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

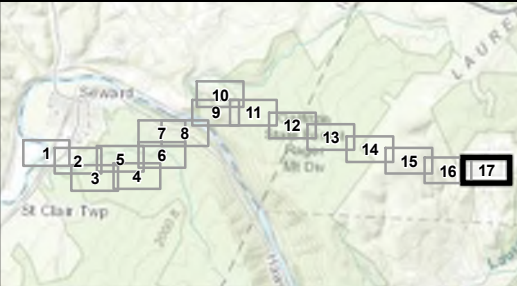
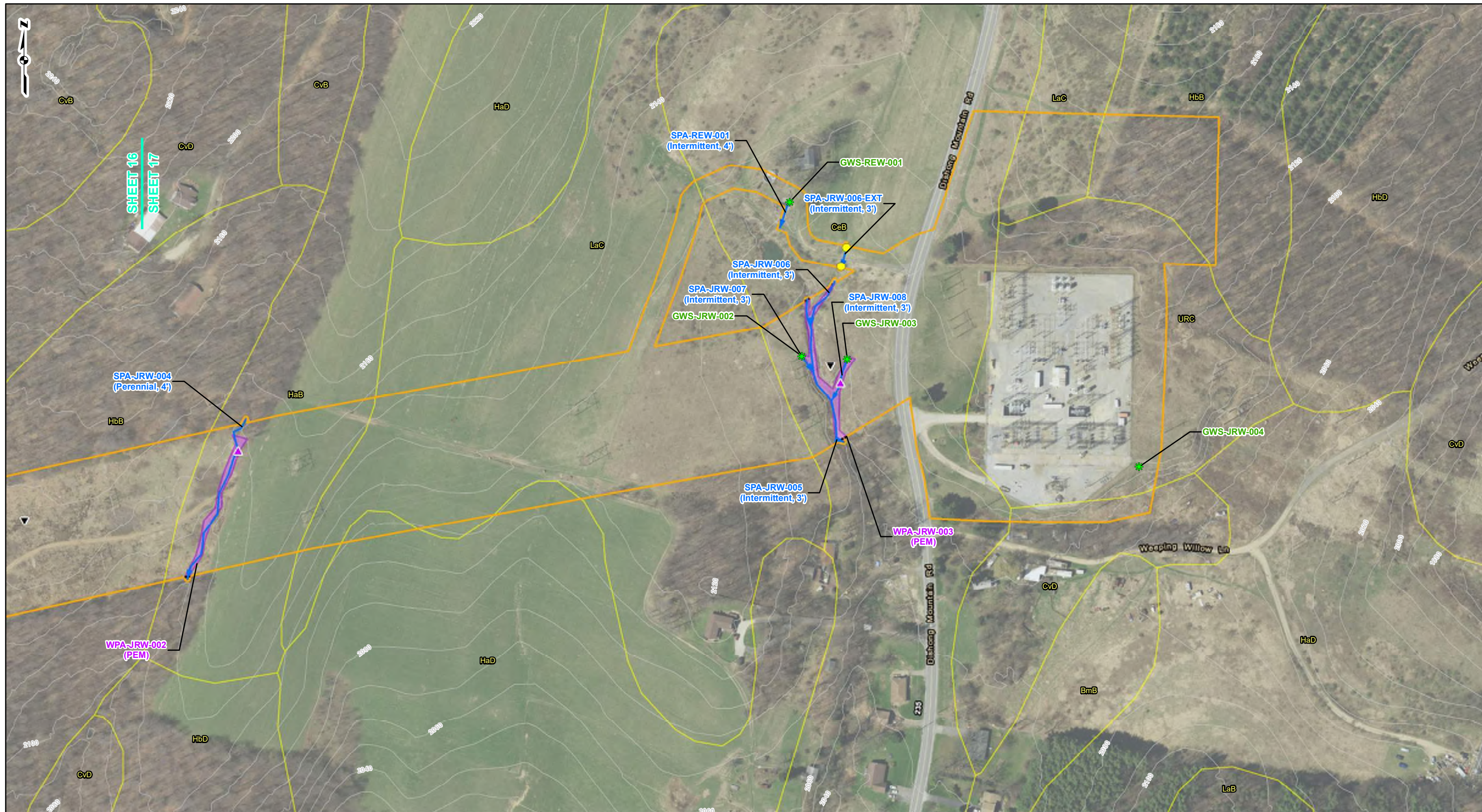
Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400
Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 16 OF 17

JOHNSTOWN-SEWARD
230kV TRANSMISSION LINE
REBUILD PROJECT
FIRSTENERGY CORPORATION

DRAWN BY: KEL	DATE: 2/27/2025
CHECKED: JAP	APPROVED:



REFERENCE: AERIAL IMAGERY, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA), 2018-2020, ACCESSED 02/2025. WORLD TRANSPORTATION, ESRI, ARCGIS ONLINE, ACCESSED 02/2025. NATIONAL HYDROGRAPHY DATASET (NHD) STREAMS, USGS, 2023. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2024. FLOODPLAINS/FLOODWAYS, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), 2024. SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE, USDA/NRCS, 2024. CONTOUR DATA, PA MAP PROGRAM, PA DCNR, 2006.

LEGEND

Groundwater Seep	Wetland Data Point	Wetland	100-Year FEMA Floodplain
Existing Culvert	Stormwater Feature	Study Area	FEMA Floodway
Soil Test Pit	Stream	NHD Stream	Soil Type Boundary
Upland Data Point	Open-Ended Boundary	NWI Wetland	10-Ft Contour

0 100 200 400 Feet

FIGURE 2
RESOURCE LOCATION MAP
SHEET 17 OF 17

JOHNSTOWN-SEWARD
 230kV TRANSMISSION LINE
 REBUILD PROJECT
 FIRSTENERGY CORPORATION

DRAWN BY: KEL
 CHECKED: JAP

DATE: 2/27/2025
 APPROVED:

APPENDIX A

Wetland Photographs



**Wetland Data Point WPA-AMK-001
Facing South-Southeast (09/24/24) (PEM)**



**Wetland Data Point WPA-AMK-001
Facing West-Northwest (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-001
Facing East-Southeast (07/10/23) (PEM)**



**Wetland Data Point WPA-JRW-001
Facing East-Northeast (07/10/23) (PEM)**



**Wetland Data Point WPA-JRW-002
Facing Southeast (07/10/23) (PEM)**



**Wetland Data Point WPA-JRW-002
Facing South-Southwest (07/10/23) (PEM)**



**Wetland Data Point WPA-JRW-003
Facing East (07/10/23) (PEM)**



**Wetland Data Point WPA-JRW-003
Facing South-Southeast (07/10/23) (PEM)**



**Wetland Data Point WPA-JRW-004
Facing East (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-004
Facing Northeast (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-005
Facing South (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-005
Facing North (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-006
Facing West (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-006
Facing Southeast (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-007
Facing East (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-007
Facing South-Southwest (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-008
Facing South-Southeast (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-008
Facing North-Northwest (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-009
Facing West-Northwest (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-009
Facing South (07/11/23) (PEM)**



**Wetland Data Point WPA-JRW-010
Facing North-Northeast (07/12/23) (PEM)**



**Wetland Data Point WPA-JRW-010
Facing East-Southeast (07/12/23) (PEM)**



**Wetland Data Point WPA-JRW-011
Facing Southwest (07/12/23) (PEM)**



**Wetland Data Point WPA-JRW-011
Facing North-Northwest (07/12/23) (PEM)**



**Wetland Data Point WPA-JRW-012
Facing South (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-012
Facing Northeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-013
Facing Southeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-013
Facing North (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-014
Facing North-Northwest (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-014
Facing East-Southeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-015
Facing South-Southeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-015
Facing West-Northwest (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-016
Facing East-Northeast (07/13/23) (PSS)**



**Wetland Data Point WPA-JRW-016
Facing South (07/13/23) (PSS)**



**Wetland Data Point WPA-JRW-017
Facing South-Southeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-017
Facing North (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-018
Facing North-Northwest (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-018
Facing Southeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-019
Facing South-Southeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-019
Facing East-Northeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-020
Facing Northwest (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-020
Facing North-Northeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-021
Facing North (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-021
Facing East-Northeast (07/13/23) (PEM)**



**Wetland Data Point WPA-JRW-021
Facing Southwest (07/13/23) (PSS)**



**Wetland Data Point WPA-JRW-021
Facing South-Southeast (07/13/23) (PSS)**



**Wetland Data Point WPA-JRW-022
Facing Southwest (07/14/23) (PEM)**



**Wetland Data Point WPA-JRW-022
Facing East-Southeast (07/14/23) (PEM)**



**Wetland Data Point WPA-JRW-023
Facing Southeast (07/14/23) (PEM)**



**Wetland Data Point WPA-JRW-023
Facing North-Northwest (07/14/23) (PEM)**



**Wetland Data Point WPA-JRW-024
Facing East-Northeast (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-024
Facing South-Southeast (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-025
Facing North-Northeast (09/24/24) (PFO)**



**Wetland Data Point WPA-JRW-025
Facing South-Southwest (09/24/24) (PFO)**



**Wetland Data Point WPA-JRW-026
Facing South (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-026
Facing North-Northeast (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-027
Facing Northwest (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-027
Facing North-Northeast (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-028
Facing East-Southeast (09/24/24) (PEM)**



**Wetland Data Point WPA-JRW-028
Facing Northeast (09/24/24) (PEM)**



**Wetland Data Point WPA-REW-001
Facing North (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-001
Facing Southwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-002
Facing North-Northeast (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-002
Facing East (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-003
Facing West-Southwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-003
Facing East-Northeast (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-004
Facing West-Northwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-004
Facing West-Southwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-005
Facing West-Southwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-005
Facing North-Northwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-006
Facing West-Northwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-006
Facing Southwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-007
Facing Southeast (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-007
Facing West-Southwest (02/05/25) (PEM)**



**Wetland Data Point WPA-REW-008
Facing West-Northwest (02/05/25) (PFO)**



**Wetland Data Point WPA-REW-008
Facing North-Northeast (02/05/25) (PFO)**



**Wetland Data Point WPA-REW-009
Facing Northeast (02/06/25) (PFO)**



**Wetland Data Point WPA-REW-009
Facing East-Northeast (02/06/25) (PFO)**



**Wetland Data Point WPA-REW-010
Facing East-Northeast (02/06/25) (PEM)**



**Wetland Data Point WPA-REW-010
Facing South-Southwest (02/06/25) (PEM)**



**Wetland Data Point WPA-REW-011
Facing Northeast (02/06/25) (PEM)**



**Wetland Data Point WPA-REW-011
Facing South (02/06/25) (PEM)**

APPENDIX B

Waterbody Photographs



**Stream SPA-JRW-001
Upstream Facing West-Southwest (07/10/23)**



**Stream SPA-JRW-001
Downstream Facing East-Southeast (07/10/23)**



**Stream SPA-JRW-001
Across Facing West (07/10/23)**



**Stream SPA-JRW-002
Upstream Facing West (07/10/23)**



**Stream SPA-JRW-002
Downstream Facing East (07/10/23)**



**Stream SPA-JRW-002
Across Facing South (07/10/23)**



**Stream SPA-JRW-003
Upstream Facing West-Northwest (07/10/23)**



**Stream SPA-JRW-003
Downstream Facing South-Southeast (07/10/23)**



**Stream SPA-JRW-003
Across Facing Southwest (07/10/23)**



**Stream SPA-JRW-004
Upstream Facing North-Northwest (07/10/23)**



**Stream SPA-JRW-004
Downstream Facing Southeast (07/10/23)**



**Stream SPA-JRW-004
Across Facing East (07/10/23)**



**Stream SPA-JRW-005
Upstream Facing West-Southwest (07/10/23)**



**Stream SPA-JRW-005
Downstream Facing North (07/10/23)**



**Stream SPA-JRW-005
Across Facing South-Southeast (07/10/23)**



**Stream SPA-JRW-006
Upstream Facing West-Northwest (07/10/23)**



**Stream SPA-JRW-006
Downstream Facing South-Southeast (07/10/23)**



**Stream SPA-JRW-006
Across Facing South-Southwest (07/10/23)**



**Stream SPA-JRW-007
Upstream Facing Southwest (07/10/23)**



**Stream SPA-JRW-007
Downstream Facing East (07/10/23)**



**Stream SPA-JRW-007
Across Facing South-Southeast (07/10/23)**



**Stream SPA-JRW-008
Upstream Facing Northwest (07/10/23)**



**Stream SPA-JRW-008
Downstream Facing East-Northeast (07/10/23)**



**Stream SPA-JRW-008
Across Facing South (07/10/23)**



**Stream SPA-JRW-011
Upstream Facing Northeast (07/11/23)**



**Stream SPA-JRW-011
Downstream Facing West-Southwest (07/11/23)**



**Stream SPA-JRW-011
Across Facing West-Northwest (07/11/23)**



**Stream SPA-JRW-012
Upstream Facing Southwest (07/11/23)**



**Stream SPA-JRW-012
Downstream Facing West-Southwest (07/11/23)**



**Stream SPA-JRW-012
Across Facing Southwest (07/11/23)**



**Stream SPA-JRW-013
Upstream Facing Northeast (07/11/23)**



**Stream SPA-JRW-013
Downstream Facing West-Northwest (07/11/23)**



**Stream SPA-JRW-013
Across Facing South (07/11/23)**



**Stream SPA-JRW-014
Upstream Facing Southwest (07/11/23)**



**Stream SPA-JRW-014
Downstream Facing West-Southwest (07/11/23)**



**Stream SPA-JRW-014
Across Facing South-Southwest (07/11/23)**



Stream SPA-JRW-015
Upstream Facing East-Southeast (07/12/23)



Stream SPA-JRW-015
Downstream Facing South-Southwest (07/12/23)



Stream SPA-JRW-015
Across Facing Southeast (07/12/23)



Stream SPA-JRW-016
Upstream Facing East-Northeast (07/12/23)



Stream SPA-JRW-016
Downstream Facing South (07/12/23)



Stream SPA-JRW-016
Across Facing East (07/12/23)



**Stream SPA-JRW-017
Upstream Facing East-Northeast (07/12/23)**



**Stream SPA-JRW-017
Downstream Facing Northwest (07/12/23)**



**Stream SPA-JRW-017
Across Facing Northwest (07/12/23)**



**Stream SPA-JRW-018
Upstream Facing North (07/12/23)**



**Stream SPA-JRW-018
Downstream Facing Southwest (07/12/23)**



**Stream SPA-JRW-018
Across Facing West-Northwest (07/12/23)**



**Stream SPA-JRW-019
Upstream Facing Southwest (07/12/23)**



**Stream SPA-JRW-019
Downstream Facing Northeast (07/12/23)**



**Stream SPA-JRW-019
Across Facing Southeast (07/12/23)**



**Stream SPA-JRW-020
Upstream Facing South-Southwest (07/12/23)**



**Stream SPA-JRW-020
Downstream Facing East-Northeast (07/12/23)**



**Stream SPA-JRW-020
Across Facing Southeast (07/12/23)**



Stream SPA-JRW-021
Upstream Facing East-Southeast (07/12/23)



Stream SPA-JRW-021
Downstream Facing East-Southeast (07/12/23)



Stream SPA-JRW-021
Across Facing West-Northwest (07/12/23)



Stream SPA-JRW-022
Upstream Facing Northeast (07/12/23)



Stream SPA-JRW-022
Downstream Facing West-Southwest (07/12/23)



Stream SPA-JRW-022
Across Facing West-Northwest (07/12/23)



**Stream SPA-JRW-023
Upstream Facing Northeast (07/12/23)**



**Stream SPA-JRW-023
Downstream Facing Southwest (07/12/23)**



**Stream SPA-JRW-023
Across Facing North-Northwest (07/12/23)**



**Stream SPA-JRW-024
Upstream Facing Southeast (07/13/23)**



**Stream SPA-JRW-024
Downstream Facing West-Northwest (07/13/23)**



**Stream SPA-JRW-024
Across Facing Northeast (07/13/23)**



**Stream SPA-JRW-025
Upstream Facing Southeast (07/13/23)**



**Stream SPA-JRW-025
Downstream Facing South (07/13/23)**



**Stream SPA-JRW-025
Across Facing East (07/13/23)**



**Stream SPA-JRW-026
Upstream Facing North (07/13/23)**



**Stream SPA-JRW-026
Downstream Facing West (07/13/23)**



**Stream SPA-JRW-026
Across Facing West-Northwest (07/13/23)**



Stream SPA-JRW-027
Upstream Facing North-Northwest (07/13/23)



Stream SPA-JRW-027
Downstream Facing South-Southwest (07/13/23)



Stream SPA-JRW-027
Across Facing West (07/13/23)



Stream SPA-JRW-028
Upstream Facing North-Northwest (07/13/23)



Stream SPA-JRW-028
Downstream Facing Southwest (07/13/23)



Stream SPA-JRW-028
Across Facing West-Northwest (07/13/23)



**Stream SPA-JRW-029
Upstream Facing East (07/13/23)**



**Stream SPA-JRW-029
Downstream Facing Southwest (07/13/23)**



**Stream SPA-JRW-029
Across Facing West-Northwest (07/13/23)**



**Stream SPA-JRW-030
Upstream Facing Northwest (07/13/23)**



**Stream SPA-JRW-030
Downstream Facing Southeast (07/13/23)**



**Stream SPA-JRW-030
Across Facing East-Northeast (07/13/23)**



**Stream SPA-JRW-031
Upstream Facing East-Northeast (07/13/23)**



**Stream SPA-JRW-031
Downstream Facing South (07/13/23)**



**Stream SPA-JRW-031
Across Facing Southeast (07/13/23)**



**Stream SPA-JRW-032
Upstream Facing Southwest (07/13/23)**



**Stream SPA-JRW-032
Downstream Facing North-Northeast (07/13/23)**



**Stream SPA-JRW-032
Across Facing East (07/13/23)**



**Stream SPA-JRW-033
Upstream Facing Northwest (07/13/23)**



**Stream SPA-JRW-033
Downstream Facing Southeast (07/13/23)**



**Stream SPA-JRW-033
Across Facing East (07/13/23)**



**Stream SPA-JRW-034
Upstream Facing South-Southwest (07/13/23)**



**Stream SPA-JRW-034
Downstream Facing East-Southeast (07/13/23)**



**Stream SPA-JRW-034
Across Facing South-Southwest (07/13/23)**



**Stream SPA-JRW-035
Upstream Facing North (07/13/23)**



**Stream SPA-JRW-035
Downstream Facing Southwest (07/13/23)**



**Stream SPA-JRW-035
Across Facing South-Southwest (07/13/23)**



**Stream SPA-JRW-035
Upstream Facing North-Northeast (07/13/23)**



**Stream SPA-JRW-036
Downstream Facing South (07/13/23)**



**Stream SPA-JRW-036
Across Facing South-Southeast (07/13/23)**



**Stream SPA-JRW-037
Upstream Facing Southeast (07/13/23)**



**Stream SPA-JRW-037
Downstream Facing Southwest (07/13/23)**



**Stream SPA-JRW-037
Across Facing West-Northwest (07/13/23)**



**Stream SPA-JRW-038
Upstream Facing East-Southeast (07/13/23)**



**Stream SPA-JRW-038
Downstream Facing South-Southwest (07/13/23)**



**Stream SPA-JRW-038
Across Facing East-Southeast (07/13/23)**



Stream SPA-JRW-039
Upstream Facing Southwest (07/13/23)



Stream SPA-JRW-039
Downstream Facing South-Southeast (07/13/23)



Stream SPA-JRW-039
Across Facing West-Southwest (07/13/23)



Stream SPA-JRW-040
Upstream Facing West-Southwest (07/14/23)



Stream SPA-JRW-040
Downstream Facing South (07/14/23)



Stream SPA-JRW-040
Across Facing West-Southwest (07/14/23)



**Stream SPA-JRW-041
Upstream Facing Northwest (09/24/22)**



**Stream SPA-JRW-041
Downstream Facing North (09/24/24)**



**Stream SPA-JRW-041
Across Facing East-Southeast (09/24/24)**



**Stream SPA-JRW-042
Upstream Facing South-Southeast (09/24/24)**



**Stream SPA-JRW-042
Downstream Facing West (09/24/24)**



**Stream SPA-JRW-042
Across Facing South (09/24/24)**



Stream SPA-REW-001
Upstream Facing Northeast (02/05/2025)



Stream SPA-REW-001
Downstream Facing Southwest (02/05/2025)



Stream SPA-REW-001
Across Facing South-Southwest (02/05/25)



Stream SPA-REW-002
Inflow Culvert Facing North (02/05/25)



Stream SPA-REW-002
Outflow Culvert Facing South (02/05/25)



Stream SPA-REW-002
Upstream Facing South (02/05/25)



Stream SPA-REW-002
Downstream Facing North (02/05/25)



Stream SPA-REW-002
Across Facing West (02/05/25)



Stream SPA-REW-003
Upstream Facing Southeast (02/05/25)



Stream SPA-REW-003
Downstream Facing North (02/05/25)



Stream SPA-REW-003
Across Facing West-Southwest (02/05/25)



Stream SPA-REW-004
Inflow Culvert Facing North (02/05/25)



**Stream SPA-REW-004
Outflow Culvert Facing South Facing (02/05/25)**



**Stream SPA-REW-004
Upstream Facing Southwest (02/05/25)**



**Stream SPA-REW-004
Downstream Facing Northeast(02/05/25)**



**Stream SPA-REW-004
Across Facing Southeast (02/05/25)**

APPENDIX C

Wetland Delineation Identification Forms

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-AMK-001PEM
 Investigator(s): AMK/JRW Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.404402 Long: -79.005572 Datum: NAD83
 Soil Map Unit Name: BeD—Bethesda very channery silt loam, 8 to 25 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-AMK-001 PEM Isolated	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
--	---

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6-12"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	--

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

Remarks:
None

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

Sampling Point: WPA-AMK-001PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
<u>0</u> = Total Cover				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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>None</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Typha latifolia</u>	<u>50</u>	<u>YES</u>	<u>OBL</u>	
2. <u>Juncus effusus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Impatiens capensis</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>	
4. <u>Scirpus cyperinus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
5. <u>Juncus canadensis</u>	<u>10</u>	<u>YES</u>	<u>OBL</u>	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
None				

SOIL

Sampling Point: WPA-AMK-001PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-17	10YR 5/2	90	10YR 4/4	10	C	PL	silt clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed):
 Type: compacted gravel/rock
 Depth (inches): 17

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Cambria County Sampling Date: 07/10/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-001 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Johnstown, PA
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.402952 Long: -78.924546 Datum: NAD83
 Soil Map Unit Name: HbB: Hazleton channery sandy loam, 3 to 8 percent slopes, extremely stony (541922) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-001 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>6-12"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-6"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
Cannot determine if high water table is present due to overflow from stream.

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

Sampling Point: WPA-JRW-001 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>170</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.13</u></td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>170</u> (B)	Prevalence Index = B/A = <u>2.13</u>	
<u> </u> Total % Cover of:	<u> </u> Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>80</u> (A)	<u>170</u> (B)																			
Prevalence Index = B/A = <u>2.13</u>																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Andropogon glomeratus</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>																	
2. <u>Scirpus cyperinus</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>																	
3. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>																	
4. <u>Acer rubrum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>80</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) <u>None</u>																				

SOIL

Sampling Point: WPA-JRW-001 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 4/1	85	7.5YR 4/4	15	C	PL	silt clay loam	
6-12"	10YR 6/2	90	10YR 4/6	10	C	PL	silt clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Cambria County Sampling Date: 07/10/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-002 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Johnstown, PA
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.403296 Long: -78.922508 Datum: NAD83
 Soil Map Unit Name: HaB: Hazleton channery loam, 3 to 8 percent slopes (541919) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-002 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4-8"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-002 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>160</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.46</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>160</u> (B)	Prevalence Index = B/A = <u>2.46</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>30</u>	x 3 = <u>90</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>65</u> (A)	<u>160</u> (B)																			
Prevalence Index = B/A = <u>2.46</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Dichanthelium clandestinum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>																	
2. <u>Juncus effusus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>																	
3. <u>Solidago rugosa</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>																	
4. <u>Carex crinita</u>	<u>10</u>	<u>YES</u>	<u>OBL</u>																	
5. <u>Carex scoparia</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>																	
6. <u>Dennstaedtia punctilobula</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>65</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

SOIL

Sampling Point: WPA-JRW-002 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10YR 4/2	95	7.5YR 4/4	5	C	PL	clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

Restrictive Layer (if observed):
 Type: Rock
 Depth (inches): 8"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Cambria County Sampling Date: 07/10/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-003 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Johnstown, PA
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.403752 Long: -78.917782 Datum: NAD83
 Soil Map Unit Name: CeB: Cookport and Ernest soils, 3 to 8 percent slopes (541903) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-003 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-6"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6-12"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-003 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>150</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.50</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>150</u> (B)	Prevalence Index = B/A = <u>1.50</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>50</u>	x 1 = <u>50</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>150</u> (B)																			
Prevalence Index = B/A = <u>1.50</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Typha latifolia</u>	<u>50</u>	<u>YES</u>	<u>OBL</u>																	
2. <u>Juncus effusus</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>																	
3. <u>Impatiens capensis</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

SOIL

Sampling Point: WPA-JRW-003 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	10YR 4/2	97.5%	10YR 4/4	2.5%	C	PL	silt clay loam	

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 12"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-004 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-5%
 Subregion (LRR or MLRA): LRR N Lat: 40.411524 Long: -78.965842 Datum: NAD83
 Soil Map Unit Name: LaE: Laidig gravelly loam, 25 to 35 percent slopes, extremely stony (1720945) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-004 PEM, Adjacent Possible Source: Runoff Wetland located on road	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4-5"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-004 PEM

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00%</u> (A/B)														
1. <u>None observed</u>		-	-															
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: right;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>25</u> (A)</td> <td><u>55</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.20</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>25</u> (A)	<u>55</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>20</u>	x 2 = <u>40</u>																	
FAC species <u>5</u>	x 3 = <u>15</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>25</u> (A)	<u>55</u> (B)																	
1. <u>None</u>		-	-															
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Juncus effusus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>															
2. <u>Andropogon glomeratus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>															
3. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
<u>25</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.														
1. <u>None observed</u>		-	-															
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
<u>None</u>																		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		

SOIL

Sampling Point: WPA-JRW-004 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5"	10YR 4/2	95	7.5YR 4/6	5	C	PL	sandy clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>5"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-005 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.411394 Long: -78.967003 Datum: NAD83
 Soil Map Unit Name: HsD: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (1720958) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>WPA-JRW-005 PEM, Isolated</u> Possible Source: <u>Runoff</u> Wetland located on road	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-005 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)																
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00%</u> (A/B)																
4. _____		-	-	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>155</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.07</u></td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>155</u> (B)	Prevalence Index = B/A = <u>2.07</u>	
<u> </u> Total % Cover of:	<u> </u> Multiply by:																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>35</u>	x 3 = <u>105</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>155</u> (B)																			
Prevalence Index = B/A = <u>2.07</u>																				
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. <u>Scirpus atrovirens</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>																	
2. <u>Microstegium vimineum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>																	
3. <u>Dichanthelium clandestinum</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>																	
4. <u>Juncus effusus</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>75</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) <u>None</u>																				

SOIL

Sampling Point: WPA-JRW-005 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 4/2	97.5	7.5YR 4/4	2.5	C	PL	clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>4"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-006 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.411561 Long: -78.967981 Datum: NAD83
 Soil Map Unit Name: HsD: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (1720958) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>WPA-JRW-006 PEM, Abutting</u> Possible Source: <u>Stream and Runoff</u> Wetland located on road	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-006 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
4. _____		-	-	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>30</u> x 1 = <u>30</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>45</u> (A) <u>75</u> (B) Prevalence Index = B/A = <u>1.67</u>
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>None</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Scirpus atrovirens</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	
2. <u>Microstegium vimineum</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) <u>None</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

SOIL

Sampling Point: WPA-JRW-006 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 5/2	97.5	7.5YR 4/6	2.5	C	PL	sandy clay loam	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

³Indicators 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: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-007 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.412856 Long: -78.973968 Datum: NAD83
 Soil Map Unit Name: HxB: Hazleton-Clymer complex, 0 to 8 percent slopes, extremely stony (1720892) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-007 PEM, Isolated Possible Source: Runoff Wetland located on roadbed	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-5"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-007 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>None</u>		-	-	OBL species <u>35</u> x 1 = <u>35</u>
2. _____		-	-	FACW species <u>5</u> x 2 = <u>10</u>
3. _____		-	-	FAC species <u>10</u> x 3 = <u>30</u>
4. _____		-	-	FACU species <u>0</u> x 4 = <u>0</u>
5. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>
6. _____		-	-	Column Totals: <u>50</u> (A) <u>75</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u>1.50</u>
8. _____		-	-	Hydrophytic Vegetation Indicators:
9. _____		-	-	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
10. _____		-	-	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
		-	-	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
		-	-	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
		-	-	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
	<u>0</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata:
1. <u>Scirpus atrovirens</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. <u>Juncus tenuis</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3. <u>Juncus effusus</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. <u>Eleocharis obtusa</u>	<u>5</u>	<u>NO</u>	<u>OBL</u>	Woody vine – All woody vines greater than 3.28 ft in height.
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>50</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
<u>None</u>				

SOIL

Sampling Point: WPA-JRW-007 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5"	10YR 5/1	80	7.5YR 5/6	5	C	PL	sandy clay loam	
	10YR 5/6	15						

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>5"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-008 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.414790 Long: -78.982057 Datum: NAD83
 Soil Map Unit Name: LaD: Laidig gravelly loam, 8 to 25 percent slopes, extremely stony (1720944) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-008 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>16-18"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-16"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-008 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)																
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
4. _____		-	-	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>170</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.27</u></td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>170</u> (B)	Prevalence Index = B/A = <u>2.27</u>	
<u> </u> Total % Cover of:	<u> </u> Multiply by:																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>40</u>	x 3 = <u>120</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>170</u> (B)																			
Prevalence Index = B/A = <u>2.27</u>																				
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
	<u>0</u> = Total Cover																			
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
	<u>0</u> = Total Cover																			
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>Dichanthelium clandestinum</u>	40	YES	FAC																	
2. <u>Scirpus cyperinus</u>	15	YES	FACW																	
3. <u>Carex vulpinoidea</u>	10	NO	OBL																	
4. <u>Scirpus atrovirens</u>	10	NO	OBL																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
	<u>75</u> = Total Cover																			
Woody Vine Stratum (Plot size: <u>30'</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
	<u>0</u> = Total Cover																			
Remarks: (Include photo numbers here or on a separate sheet.) <u>None</u>																				

SOIL

Sampling Point: WPA-JRW-008 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 4/2	97.5	7.5YR 4/6	2.5	C	PL	silty clay loam	
6-18"	10YR 5/1	90	7.5YR 4/6	10	C	PL	silty clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-009 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.415265 Long: -78.981669 Datum: NAD83
 Soil Map Unit Name: LaD: Laidig gravelly loam, 8 to 25 percent slopes, extremely stony (1720944) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-009 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-009 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>80</u></td> <td>x 3 = <u>240</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>270</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.84</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>80</u>	x 3 = <u>240</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>270</u> (B)	Prevalence Index = B/A = <u>2.84</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>80</u>	x 3 = <u>240</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>95</u> (A)	<u>270</u> (B)																			
Prevalence Index = B/A = <u>2.84</u>																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Dichanthelium clandestinum</u>	<u>80</u>	<u>YES</u>	<u>FAC</u>																	
2. <u>Juncus effusus</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>																	
3. <u>Eupatorium perfoliatum</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>95</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

SOIL

Sampling Point: WPA-JRW-009 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5"	10YR 4/2	97.5	7.5YR 4/4	2.5	C	PL	sandy clay loam	
5-12"	10YR 4/1	95	7.5YR 4/4	5	C	PL	clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/12/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-010 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township, PA
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.406083 Long: -78.996909 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: see remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>WPA-JRW-010 PEM, Abutting</u> Possible Source: <u>Stream</u> Wetland adjacent to NWI classification: <u>R5UBH</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
---	--

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-10"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	--

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

Remarks:
None

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

Sampling Point: WPA-JRW-010 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)																
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
4. _____		-	-	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>45</u> (A)</td> <td><u>105</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.33</u></td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>45</u> (A)	<u>105</u> (B)	Prevalence Index = B/A = <u>2.33</u>	
<u> </u> Total % Cover of:	<u> </u> Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>30</u>	x 2 = <u>60</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>45</u> (A)	<u>105</u> (B)																			
Prevalence Index = B/A = <u>2.33</u>																				
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
	<u>0</u>	= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
	<u>0</u>	= Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. <u>Andropogon glomeratus</u>	30	YES	FACW																	
2. <u>Microstegium vimineum</u>	10	YES	FAC																	
3. <u>Dichanthelium clandestinum</u>	5	NO	FAC																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
	<u>45</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
	<u>0</u>	= Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				

SOIL

Sampling Point: WPA-JRW-010 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 2/2	100					Silt clay loam	
4-10"	10YR 4/1	65	7.5 YR 4/4	5	C	PL	Silt clay loam	
	10YR 3/1	30						

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>10"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/12/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-011 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township, PA
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.405579 Long: -78.997577 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: see remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-011 PEM, Abutting Wetland adjacent to NWI classification: R5UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4-12"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-011 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>None</u>		-	-	OBL species <u>5</u> x 1 = <u>5</u>
2. _____		-	-	FACW species <u>20</u> x 2 = <u>40</u>
3. _____		-	-	FAC species <u>15</u> x 3 = <u>45</u>
4. _____		-	-	FACU species <u>0</u> x 4 = <u>0</u>
5. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>
6. _____		-	-	Column Totals: <u>40</u> (A) <u>90</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u>2.25</u>
8. _____		-	-	Hydrophytic Vegetation Indicators:
9. _____		-	-	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
10. _____		-	-	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
				<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
	<u>0</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata:
1. <u>Microstegium vimineum</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. <u>Scirpus cyperinus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3. <u>Andropogon glomeratus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. <u>Scirpus atrovirens</u>	<u>5</u>	<u>NO</u>	<u>OBL</u>	Woody vine – All woody vines greater than 3.28 ft in height.
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>40</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
<u>None</u>				

SOIL

Sampling Point: WPA-JRW-011 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10YR 3/1	100					silt clay loam	
8-12"	10YR 4/1	97.5	7.5YR 4/6	2.5	C	PL	silt clay loam	

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 136, 122**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-012 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Seward, PA
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.402123 Long: -79.002852 Datum: NAD83
 Soil Map Unit Name: LaD: Laidig gravelly loam, 8 to 25 percent slopes, extremely stony (544615) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-012 PEM, Abutting Possible Source: Stream	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-1"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-012 PEM

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:	
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
4. _____		-	-	Prevalence Index worksheet:	
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
<u>0</u> = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					OBL species <u>0</u> x 1 = <u>0</u>
1. <u>None</u>		-	-		FACW species <u>30</u> x 2 = <u>60</u>
2. _____		-	-	FAC species <u>60</u> x 3 = <u>180</u>	
3. _____		-	-	FACU species <u>0</u> x 4 = <u>0</u>	
4. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____		-	-	Column Totals: <u>90</u> (A) <u>240</u> (B)	
6. _____		-	-	Prevalence Index = B/A = <u>2.67</u>	
7. _____		-	-	Hydrophytic Vegetation Indicators:	
8. _____		-	-		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
9. _____		-	-		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
10. _____		-	-		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
<u>0</u> = Total Cover					<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>5'</u>)					<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Microstegium vimineum</u>	60	YES	FAC		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Scirpus cyperinus</u>	30	YES	FACW		
3. _____		-	-		
4. _____		-	-		
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
9. _____		-	-		
10. _____		-	-		
11. _____		-	-		
12. _____		-	-		
<u>90</u> = Total Cover				Definitions of Four Vegetation Strata:	
Woody Vine Stratum (Plot size: <u>30'</u>)					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1. <u>None observed</u>		-	-		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. _____		-	-		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3. _____		-	-		Woody vine – All woody vines greater than 3.28 ft in height.
4. _____		-	-		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
5. _____		-	-		
6. _____		-	-		
<u>0</u> = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					
None					

SOIL

Sampling Point: WPA-JRW-012 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 3/1	50	7.5YR 4/6	2.5	C	PL	silty clay loam	
	10YR 5/1	47.5						
6-14"	10YR 6/1	45	7.5YR 4/6	10	C	PL	silty clay loam	
	10YR 6/2	45						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 136, 122**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 14"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-013 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Seward, PA
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.400162 Long: -79.012123 Datum: NAD83
 Soil Map Unit Name: BuD: Buchanan loam, 8 to 25 percent slopes, extremely stony (544629) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-013 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-013 PEM

	Absolute % Cover	Dominant Species?	Indicator Status			
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:		
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)		
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)		
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
4. _____		-	-	Prevalence Index worksheet:		
5. _____		-	-		<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>	
6. _____		-	-		OBL species <u>0</u> x 1 = <u>0</u>	
7. _____		-	-		FACW species <u>10</u> x 2 = <u>20</u>	
8. _____		-	-		FAC species <u>40</u> x 3 = <u>120</u>	
					FACU species <u>0</u> x 4 = <u>0</u>	
					UPL species <u>0</u> x 5 = <u>0</u>	
					Column Totals: <u>50</u> (A) <u>140</u> (B)	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Prevalence Index = B/A = <u>2.80</u>		
1. <u>None</u>		-	-	Hydrophytic Vegetation Indicators:		
2. _____		-	-		<u> </u> 1 - Rapid Test for Hydrophytic Vegetation	
3. _____		-	-		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
4. _____		-	-		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
5. _____		-	-		<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. _____		-	-		<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____		-	-		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____		-	-		Definitions of Four Vegetation Strata:	
9. _____		-	-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10. _____		-	-			Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
12. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.		
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <u> </u>		
Herb Stratum (Plot size: <u>5'</u>)						
1. <u>Microstegium vimineum</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>			
2. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>			
3. <u>Andropogon glomeratus</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>			
4. _____		-	-			
5. _____		-	-			
6. _____		-	-			
7. _____		-	-			
8. _____		-	-			
9. _____		-	-			
10. _____		-	-			
11. _____		-	-			
12. _____		-	-			
Woody Vine Stratum (Plot size: <u>30'</u>)						
1. <u>None observed</u>		-	-			
2. _____		-	-			
3. _____		-	-			
4. _____		-	-			
5. _____		-	-			
6. _____		-	-			
<u>50</u> = Total Cover						
<u>0</u> = Total Cover						
Remarks: (Include photo numbers here or on a separate sheet.)						
<u>None</u>						

SOIL

Sampling Point: WPA-JRW-013 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 4/1	60	7.5YR 4/4	10	C	PL	silty clay loam	
	10YR 3/1	30						
6-12"	10YR 5/3	50					sandy clay loam	
	10YR 4/3	50						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-014 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Seward, Pennsylvania
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.399877 Long: -79.013402 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: see remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-014 PEM, Abutting Possible Source: Streams and Runoff Entire wetland adjacent to NWI classification: R5UBH Far eastern portion of wetland falls under soil map unit name: BuD: Buchanan loam, 8 to 25 percent slopes, extremely stony (544629)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6-12"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-6"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-014 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>90</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.20</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>90</u> (B)	Prevalence Index = B/A = <u>1.20</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>60</u>	x 1 = <u>60</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>90</u> (B)																			
Prevalence Index = B/A = <u>1.20</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Typha angustifolia</u>	<u>60</u>	<u>YES</u>	<u>OBL</u>																	
2. <u>Andropogon glomeratus</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>																	
3. <u>Onoclea sensibilis</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>75</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

SOIL

Sampling Point: WPA-JRW-014 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 3/1	95	7.5YR 4/4	5	C	PL	Silty clay loam	
6-12"	10YR 6/2	55	7.5YR 4/6	5	C	PL	Silty clay loam	
	10YR 5/1	40						

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>12"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-015 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Seward, Pennsylvania
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.401212 Long: -79.018378 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: see remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-015 PEM, Abutting Possible Source: Stream and Runoff Wetland adjacent to NWI classification: R5UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-015 PEM

	Absolute % Cover	Dominant Species?	Indicator Status			
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:		
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)		
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)		
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
4. _____		-	-	Prevalence Index worksheet:		
5. _____		-	-		<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>	
6. _____		-	-		OBL species <u>35</u> x 1 = <u>35</u>	
7. _____		-	-		FACW species <u>45</u> x 2 = <u>90</u>	
8. _____		-	-		FAC species <u>10</u> x 3 = <u>30</u>	
	<u>0</u>	= Total Cover		FACU species <u>0</u> x 4 = <u>0</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				UPL species <u>0</u> x 5 = <u>0</u>		
1. <u>None</u>		-	-	Column Totals: <u>90</u> (A) <u>155</u> (B)		
2. _____		-	-	Prevalence Index = B/A = <u>1.72</u>		
3. _____		-	-	Hydrophytic Vegetation Indicators:		
4. _____		-	-		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
5. _____		-	-		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____		-	-		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
7. _____		-	-		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
8. _____		-	-	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)		
9. _____		-	-	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
10. _____		-	-		Definitions of Four Vegetation Strata:	
	<u>0</u>	= Total Cover				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5'</u>)						Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
1. <u>Rubus hispidus</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2. <u>Carex crinita</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	Woody vine – All woody vines greater than 3.28 ft in height.		
3. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
4. <u>Carex lurida</u>	<u>5</u>	<u>NO</u>	<u>OBL</u>			
5. <u>Andropogon glomeratus</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>			
6. _____		-	-			
7. _____		-	-			
8. _____		-	-			
9. _____		-	-			
10. _____		-	-			
11. _____		-	-			
12. _____		-	-			
	<u>90</u>	= Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u>)						
1. <u>None observed</u>		-	-			
2. _____		-	-			
3. _____		-	-			
4. _____		-	-			
5. _____		-	-			
6. _____		-	-			
	<u>0</u>	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)						
<u>None</u>						

SOIL

Sampling Point: WPA-JRW-015 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	10YR 4/2	90	7.5YR 4/4	10	C	PL	silt clay loam	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-016 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Seward, Pennsylvania
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.40134 Long: -79.019296 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: See remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-016 PEM, Adjacent Possible Source: Runoff Adjacent to NWI classification: R5UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3-6"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-3"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-016 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>Kalmia latifolia</u>	<u>35</u>	<u>YES</u>	<u>FACU</u>	OBL species <u>0</u> x 1 = <u>0</u>
2. <u>Viburnum dentatum</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	FACW species <u>25</u> x 2 = <u>50</u>
3. _____		-	-	FAC species <u>25</u> x 3 = <u>75</u>
4. _____		-	-	FACU species <u>35</u> x 4 = <u>140</u>
5. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>
6. _____		-	-	Column Totals: <u>85</u> (A) <u>265</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u>3.12</u>
8. _____		-	-	Hydrophytic Vegetation Indicators:
9. _____		-	-	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
10. _____		-	-	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
	<u>50</u>	= Total Cover		<u> </u> 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: <u>5'</u>)				<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Scirpus cyperinus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Juncus effusus</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
3. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. <u>Microstegium vimineum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
5. _____		-	-	Definitions of Four Vegetation Strata:
6. _____		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>35</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks: (Include photo numbers here or on a separate sheet.)
Viburnum dentatum added in based off photos.

SOIL

Sampling Point: WPA-JRW-016 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2"	10YR 4/2	95	7.5YR 4/4	5	C	PL	silt loam	
2-6"	10YR 5/1	50	7.5YR 4/4	5	C	PL	silt clay loam	
	10YR 6/2	45						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 6"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-017 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.402118 Long: -79.021169 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: See Remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-017 PEM, Adjacent Possible Source: Runoff Adjacent to NWI classification: R5UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-1"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-017 PEM

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:	
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
4. _____		-	-	Prevalence Index worksheet:	
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
<u>0</u> = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					OBL species <u>0</u> x 1 = <u>0</u>
1. <u>None</u>		-	-		FACW species <u>85</u> x 2 = <u>170</u>
2. _____		-	-	FAC species <u>10</u> x 3 = <u>30</u>	
3. _____		-	-	FACU species <u>0</u> x 4 = <u>0</u>	
4. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____		-	-	Column Totals: <u>95</u> (A) <u>200</u> (B)	
6. _____		-	-	Prevalence Index = B/A = <u>2.11</u>	
7. _____		-	-	Hydrophytic Vegetation Indicators:	
8. _____		-	-		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
9. _____		-	-		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
10. _____		-	-		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
<u>0</u> = Total Cover					<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>5'</u>)					<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Scirpus cyperinus</u>	50	YES	FACW		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Rubus hispidus</u>	30	YES	FACW		
3. <u>Dichanthelium clandestinum</u>	10	NO	FAC		
4. <u>Andropogon glomeratus</u>	5	NO	FACW		
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
9. _____		-	-		
10. _____		-	-		
11. _____		-	-		
12. _____		-	-		
<u>95</u> = Total Cover				Definitions of Four Vegetation Strata:	
Woody Vine Stratum (Plot size: <u>30'</u>)					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1. <u>None observed</u>		-	-		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. _____		-	-		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3. _____		-	-		Woody vine – All woody vines greater than 3.28 ft in height.
4. _____		-	-		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
5. _____		-	-		
6. _____		-	-		
<u>0</u> = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					
None					

SOIL

Sampling Point: WPA-JRW-017 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	10YR 6/2	60	7.5YR 4/6	10	C	PL	silt clay loam	
	10YR 4/1	30						

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-018 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.402653 Long: -79.021787 Datum: NAD83
 Soil Map Unit Name: Ph: Philo loam, 0 to 3 percent slopes, occasionally flooded (544648) NWI classification: See Remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-018 PEM, Adjacent Possible Source: Runoff Adjacent to NWI classification: R5UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6-12"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-6"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-018 PEM

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:														
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)														
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)														
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)														
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
	<u>0</u>	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>160</u> (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>160</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>65</u> (A)	<u>160</u> (B)																	
1. <u>Alnus incana</u>	<u>5</u>	YES	FACU	Prevalence Index = B/A = <u>2.46</u>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
	<u>5</u>	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Rubus hispidus</u>	<u>20</u>	YES	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Dichanthelium clandestinum</u>	<u>15</u>	YES	FAC															
3. <u>Scirpus cyperinus</u>	<u>10</u>	NO	FACW															
4. <u>Apocynum cannabinum</u>	<u>5</u>	NO	FACU															
5. <u>Andropogon glomeratus</u>	<u>5</u>	NO	FACW															
6. <u>Symplocarpus foetidus</u>	<u>5</u>	NO	OBL															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
	<u>60</u>	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: <u>30'</u>)				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
	<u>0</u>	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		
<u>None</u>																		

SOIL

Sampling Point: WPA-JRW-018 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 3/1	70	7.5YR 2.5	2.5	C	PL	clay loam	
	10YR 4/1	27.5						
6-12"	10YR 6/1	70	7.5YR 4/6	10	C	PL	sand clay loam	
	10YR 5/1	20						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-019 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.402557 Long: -79.021868 Datum: NAD83
 Soil Map Unit Name: Ph: Philo loam, 0 to 3 percent slopes, occasionally flooded (544648) NWI classification: See Remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-019 PEM, Adjacent Possible Source: Runoff Adjacent to NWI classification: R5UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1-6"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-1"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-019 PEM

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:														
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)														
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)														
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)														
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
	<u>0</u>	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>150</u> (B)</td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>60</u> (A)	<u>150</u> (B)
<u> </u> Total % Cover of:	<u> </u> Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>30</u>	x 2 = <u>60</u>																	
FAC species <u>30</u>	x 3 = <u>90</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>60</u> (A)	<u>150</u> (B)																	
1. <u>None</u>		-	-	Prevalence Index = B/A = <u>2.50</u>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Scirpus cyperinus</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Dichanthelium clandestinum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>															
3. <u>Microstegium vimineum</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
	<u>60</u>	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: <u>30'</u>)				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
	<u>0</u>	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		
<u>None</u>																		

SOIL

Sampling Point: WPA-JRW-019 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 6/1	65	7.5YR 4/4	5	C	PL	silt clay loam	
	10YR 3/1	30						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 136, 122**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 6"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-020 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.402780 Long: -79.022918 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: WPA-JRW-019 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6-14"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____

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

Remarks:
None

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

Sampling Point: WPA-JRW-020 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>Smilax rotundifolia</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	OBL species <u>20</u> x 1 = <u>20</u>
2. _____		-	-	FACW species <u>85</u> x 2 = <u>170</u>
3. _____		-	-	FAC species <u>10</u> x 3 = <u>30</u>
4. _____		-	-	FACU species <u>0</u> x 4 = <u>0</u>
5. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>
6. _____		-	-	Column Totals: <u>115</u> (A) <u>220</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u>1.91</u>
8. _____		-	-	
9. _____		-	-	Hydrophytic Vegetation Indicators:
10. _____		-	-	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
	<u>10</u>	= Total Cover		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
Herb Stratum (Plot size: <u>5'</u>)				<u> </u> 3 - Prevalence Index is ≤3.0 ¹
1. <u>Rubus hispidus</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>	<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Scirpus cyperinus</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Symplocarpus foetidus</u>	<u>20</u>	<u>NO</u>	<u>OBL</u>	
4. <u>Andropogon glomeratus</u>	<u>15</u>	<u>NO</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____		-	-	Definitions of Four Vegetation Strata:
6. _____		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>105</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
<u>None</u>				

SOIL

Sampling Point: WPA-JRW-020 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 4/2	50	7.5YR 4/6	2.5	C	PL	clay loam	
	10YR 4/1	47.5						
6-14"	10YR 6/1	95	7.5YR 4/6	5	C	PL	sand clay loam	

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-021 PEM 2
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.403149 Long: -79.023037 Datum: NAD83
 Soil Map Unit Name: Ph: Philo loam, 0 to 3 percent slopes, occasionally flooded (544648) NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-021 PEM (data point #2), Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-021 PEM 2

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:	
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)	
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
4. _____		-	-	Prevalence Index worksheet:	
5. _____		-	-		Total % Cover of: _____ Multiply by: _____
6. _____		-	-		OBL species <u>15</u> x 1 = <u>15</u>
7. _____		-	-		FACW species <u>25</u> x 2 = <u>50</u>
8. _____		-	-		FAC species <u>10</u> x 3 = <u>30</u>
0 = Total Cover				FACU species <u>0</u> x 4 = <u>0</u>	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				UPL species <u>0</u> x 5 = <u>0</u>	
1. <u>None</u>		-	-	Column Totals: <u>50</u> (A) <u>95</u> (B)	
2. _____		-	-	Prevalence Index = B/A = <u>1.90</u>	
3. _____		-	-	Hydrophytic Vegetation Indicators:	
4. _____		-	-		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
5. _____		-	-		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
6. _____		-	-		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
7. _____		-	-		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8. _____		-	-	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
9. _____		-	-	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
10. _____		-	-	Definitions of Four Vegetation Strata:	
11. _____		-	-		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12. _____		-	-		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
0 = Total Cover					Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: <u>30'</u>)					Woody vine – All woody vines greater than 3.28 ft in height.
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2. _____		-	-		
3. _____		-	-		
4. _____		-	-		
5. _____		-	-		
6. _____		-	-		
0 = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					
<u>None</u>					

SOIL

Sampling Point: WPA-JRW-021 PEM 2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 3/1	100					sandy clay loam	
4-8"	10YR 6/2	75	7.5YR 4/4	5	C	PL	sandy clay loam	
	10YR 4/2	20						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 8"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-021 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.403483 Long: -79.024714 Datum: NAD83
 Soil Map Unit Name: Ph: Philo loam, 0 to 3 percent slopes, occasionally flooded (544648) NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-021 PEM, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2-14"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-021 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u>Total % Cover of:</u></td> <td style="width:50%;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u>55</u></td> <td>x 1 = <u>55</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>125</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.39</u></td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species <u>55</u>	x 1 = <u>55</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>125</u> (B)	Prevalence Index = B/A = <u>1.39</u>	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species <u>55</u>	x 1 = <u>55</u>																			
FACW species <u>35</u>	x 2 = <u>70</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>90</u> (A)	<u>125</u> (B)																			
Prevalence Index = B/A = <u>1.39</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Symplocarpus foetidus</u>	<u>40</u>	<u>YES</u>	<u>OBL</u>																	
2. <u>Juncus effusus</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>																	
3. <u>Carex lurida</u>	<u>15</u>	<u>NO</u>	<u>OBL</u>																	
4. <u>Eutrochium fistulosum</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>90</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-021 PSS
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.403107 Long: -79.023276 Datum: NAD83
 Soil Map Unit Name: Ph: Philo loam, 0 to 3 percent slopes, occasionally flooded (544648) NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-021 PSS, Abutting Possible Source: Stream and Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-12"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-021 PSS

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>215</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.72</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>215</u> (B)	Prevalence Index = B/A = <u>1.72</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>60</u>	x 1 = <u>60</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>25</u>	x 3 = <u>75</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>125</u> (A)	<u>215</u> (B)																			
Prevalence Index = B/A = <u>1.72</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Alnus serrulata</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>																	
2. <u>Smilax rotundifolia</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>35</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Symplocarpus foetidus</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>																	
2. <u>Rubus hispidus</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>																	
3. <u>Solidago rugosa</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>																	
4. <u>Carex crinita</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>90</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

SOIL

Sampling Point: WPA-JRW-021 PSS

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 4/2	90	7.5YR 4/6	10	C	PL	Silt clay loam	
6-12"	10YR 4/2	95	7.5YR 4/6	5	C	PL	silt clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/14/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-022 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404614 Long: -79.026858 Datum: NAD83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 percent slopes (544607) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-022 PEM, Adjacent Possible Source: Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-3"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-022 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>180</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.57</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>180</u> (B)	Prevalence Index = B/A = <u>2.57</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>70</u> (A)	<u>180</u> (B)																			
Prevalence Index = B/A = <u>2.57</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Scirpus cyperinus</u>	<u>50</u>	<u>YES</u>	<u>FACW</u>																	
2. <u>Apocynum cannabinum</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>70</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

SOIL

Sampling Point: WPA-JRW-022 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3"	10YR 5/1	95	7.5YR 4/4	5	C	PL	silty clay loam	
3-6"	10YR 3/1	100					loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>6"</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/14/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-023 PEM
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404690 Long: -79.027620 Datum: NAD83
 Soil Map Unit Name: MoB: Monongahela silt loam, 3 to 8 percent slopes (544645) NWI classification: See Remarks

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: WPA-JRW-023 PEM, Adjacent Possible Source: Runoff Adjacent to NWI classification: R2UBH	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-18"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-023 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>Rubus allegheniensis</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	OBL species <u>0</u> x 1 = <u>0</u>
2. _____		-	-	FACW species <u>55</u> x 2 = <u>110</u>
3. _____		-	-	FAC species <u>20</u> x 3 = <u>60</u>
4. _____		-	-	FACU species <u>35</u> x 4 = <u>140</u>
5. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>
6. _____		-	-	Column Totals: <u>110</u> (A) <u>310</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u>2.82</u>
8. _____		-	-	
9. _____		-	-	Hydrophytic Vegetation Indicators:
10. _____		-	-	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
	<u>20</u>	= Total Cover		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
Herb Stratum (Plot size: <u>5'</u>)				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
1. <u>Impatiens capensis</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>	<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Scirpus cyperinus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Euthamia graminifolia</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. <u>Solidago canadensis</u>	<u>15</u>	<u>NO</u>	<u>FACU</u>	
5. <u>Onoclea sensibilis</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	Definitions of Four Vegetation Strata:
6. _____		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>90</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
None				

SOIL

Sampling Point: WPA-JRW-023 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6"	10YR 3/1	100					silty clay loam	
6-18"	10YR 5/1	80	7.5YR 4/6	10	C	PL	silty clay loam	
	10YR 6/1	5						
	10YR 6/2	5						

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Remarks: **None**

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 9/24/2024

Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-024 PEM

Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS

Landform (hillside, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N, MLRA 127 Lat: 40.405036 Long: -79.018483 Datum: NAD83

Soil Map Unit Name: GcB: Gilpin channery silt loam, 3 to 8 percent slopes (544630) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks:
 Wetland data point for WPA-JRW-024 PEM, Adjacent - Possible Source: Runoff

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
---	---

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

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

Remarks:
 N/A

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

Sampling Point: WPA-JRW-024 PEM

<u>Tree Stratum</u> (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>55</u> x 2 = <u>110</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>115</u> (A) <u>290</u> (B) Prevalence Index = B/A = <u>2.52</u>
50% of total cover: _____		20% of total cover: _____		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
=Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: _____		20% of total cover: _____		
<u>Herb Stratum</u> (Plot size: <u>5'</u>)				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.
1. <u>Microstegium vimineum</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rubus hispidus</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Scirpus cyperinus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
=Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
50% of total cover: <u>58</u>		20% of total cover: <u>23</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
50% of total cover: _____		20% of total cover: _____		

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

SOIL

Sampling Point: WPA-JRW-024 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	2.5Y 4/1	98	5YR 3/4	2	C	PL	Loamy/Clayey	Prominent redox concentrations
3-6	10YR 3/1	70	7.5YR 4/1	2	C	PL	Loamy/Clayey	Faint redox concentrations
	10YR 4/1	38						

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- 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)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators 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:
None

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcl.d.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-025 PFO
 Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404589 Long: -79.016598 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data point for WPA-JRW-025 PFO, Adjacent Possible Source: Runoff, Water Table	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12-16</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-12</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-025 PFO

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)					
1. <u>Acer rubrum</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)	
2. <u>Quercus alba</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>		
3. <u>Betula lenta</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>		
4. <u>Nyssa sylvatica</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
<u>35</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>0</u> x 2 = <u>0</u> FAC species _____ x 3 = _____ FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					
1. <u>Betula lenta</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>		
2. <u>Rhododendron sp</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>		
3. <u>Acer rubrum</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
<u>25</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
Herb Stratum (Plot size: <u>5'</u>)					
1. <u>Osmunda spectabilis</u>	<u>10</u>	<u>YES</u>	<u>OBL</u>		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>10</u> = Total Cover				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.	
Woody Vine Stratum (Plot size: <u>30'</u>)					
1. <u>None observed</u>	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
<u>0</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Include photo numbers here or on a separate sheet.)					
None					

SOIL

Sampling Point: WPA-JRW-025 PFO

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12"	10YR 5/1	80	5YR 3/4	20	C	PL	Loam	
12-16"	10YR 3/1	100					Loam	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-026 PEM
 Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404404 Long: -79.016137 Datum: NAD83
 Soil Map Unit Name: CrB: Craigs ville-Buchanan complex, 0 to 8 percent slopes, extremely stony (621314) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data point for WPA-JRW-026 PEM, Adjacent Possible Source: Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3-6</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-3</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-026 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																		
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																	
1. _____	_____	-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																	
2. _____	_____	-	-	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																	
3. _____	_____	-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																	
4. _____	_____	-	-	Prevalence Index worksheet:																	
5. _____	_____	-	-																		
6. _____	_____	-	-																		
7. _____	_____	-	-																		
8. _____	_____	-	-																		
0 = Total Cover					<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>280</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.24</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>280</u> (B)	Prevalence Index = B/A = <u>2.24</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>10</u>	x 1 = <u>10</u>																				
FACW species <u>90</u>	x 2 = <u>180</u>																				
FAC species <u>10</u>	x 3 = <u>30</u>																				
FACU species <u>15</u>	x 4 = <u>60</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>125</u> (A)	<u>280</u> (B)																				
Prevalence Index = B/A = <u>2.24</u>																					
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators:																	
1. <u>Quercus alba</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>																		
2. <u>Corylus americana</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>																		
3. _____	_____	-	-																		
4. _____	_____	-	-																		
5. _____	_____	-	-																		
6. _____	_____	-	-																		
7. _____	_____	-	-																		
8. _____	_____	-	-																		
9. _____	_____	-	-																		
10. _____	_____	-	-																		
15 = Total Cover				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																	
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata:																	
1. <u>Rubus hispidus</u>	<u>50</u>	<u>YES</u>	<u>FACW</u>																		
2. <u>Juncus effusus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>																		
3. <u>Scirpus cyperinus</u>	<u>15</u>	<u>NO</u>	<u>FACW</u>																		
4. <u>Juncus canadensis</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>																		
5. <u>Microstegium vimineum</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>																		
6. <u>Andropogon glomeratus</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>																		
7. _____	_____	-	-																		
8. _____	_____	-	-																		
9. _____	_____	-	-																		
10. _____	_____	-	-																		
11. _____	_____	-	-																		
12. _____	_____	-	-																		
110 = Total Cover				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>																	
Woody Vine Stratum (Plot size: <u>30'</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																	
1. <u>None observed</u>	_____	-	-																		
2. _____	_____	-	-																		
3. _____	_____	-	-																		
4. _____	_____	-	-																		
5. _____	_____	-	-																		
6. _____	_____	-	-																		
0 = Total Cover																					
Remarks: (Include photo numbers here or on a separate sheet.)																					
None																					

SOIL

Sampling Point: WPA-JRW-026 PEM

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2"	10YR 3/2	100					Silty Loam	
2-4"	GLE Y 1 3/1	98	7.5YR 4/4	2	C	PL	Loam	
4-6"	10YR 6/1	85	7.5YR 3/4	10	C	M	Silty Clay Loam	
			7.5YR 4/4	5	C	M		

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-027 PEM
 Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404232 Long: -79.015027 Datum: NAD83
 Soil Map Unit Name: BeD: Bethesda very channery silt loam, 8 to 25 percent slopes (544559) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data point for WPA-JRW-027 PEM, Adjacent Possible Source: Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4-8"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-027 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>Cornus amomum</u>	<u>5</u>	<u>YES</u>	<u>FACW</u>	OBL species <u> </u> x 1 = <u> </u>
2. _____		-	-	FACW species <u> </u> x 2 = <u> </u>
3. _____		-	-	FAC species <u> </u> x 3 = <u> </u>
4. _____		-	-	FACU species <u> </u> x 4 = <u> </u>
5. _____		-	-	UPL species <u> </u> x 5 = <u> </u>
6. _____		-	-	Column Totals: <u>0</u> (A) <u>0</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u> </u>
8. _____		-	-	Hydrophytic Vegetation Indicators:
9. _____		-	-	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
10. _____		-	-	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
	<u>5</u>	= Total Cover		<u> </u> 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: <u>5'</u>)				<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Microstegium vimineum</u>	<u>60</u>	<u>YES</u>	<u>FAC</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Scirpus cyperinus</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Vernonia noveboracensis</u>	<u>20</u>	<u>NO</u>	<u>FACW</u>	
4. <u>Eupatorium perfoliatum</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>130</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata:
1. <u>None observed</u>		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
<u>None</u>				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-028 PEM
 Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404701 Long: -79.013391 Datum: NAD83
 Soil Map Unit Name: BeD: Bethesda very channery silt loam, 8 to 25 percent slopes (544559) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data point for WPA-JRW-028 PEM, Adjacent Possible Source: Runoff	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8-10"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-8"</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-028 PEM

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
_____		-	-	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
1. <u>Cornus amomum</u>	<u>5</u>	<u>YES</u>	<u>FACW</u>	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
<u>5</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Microstegium vimineum</u>	<u>60</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Symphotrichum pilosum</u>	<u>40</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Dichanthelium clandestinum</u>	<u>20</u>	<u>NO</u>	<u>FAC</u>	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
<u>120</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
1. <u>None observed</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) <u>None</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-001
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): LRR N Lat: 40.418436 Long: -78.98627 Datum: NAD 83
 Soil Map Unit Name: LaD: Laidig gravelly 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-001. PEM, isolated.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-5</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None.

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

Sampling Point: WPA-REW-001

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Total % Cover of: _____ Multiply by: _____
1. Absent		-	-	OBL species _____ x 1 = _____
2. _____		-	-	FACW species _____ x 2 = _____
3. _____		-	-	FAC species _____ x 3 = _____
4. _____		-	-	FACU species _____ x 4 = _____
5. _____		-	-	UPL species _____ x 5 = _____
6. _____		-	-	Column Totals: <u>0</u> (A) <u>0</u> (B)
7. _____		-	-	Prevalence Index = B/A = _____
8. _____		-	-	
9. _____		-	-	Hydrophytic Vegetation Indicators:
10. _____		-	-	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
	<u>0</u>	= Total Cover		<input type="checkbox"/> 2 - Dominance Test is >50%
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
1. <i>Phalaris arundinacea</i>	70	YES	FACW	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <i>Thelypteris palustris</i>	15	YES	FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. _____		-	-	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____		-	-	Definitions of Four Vegetation Strata:
5. _____		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
6. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
8. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>85</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. Absent		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
Remaining herb cover is bare ground.				

SOIL

Sampling Point: WPA-REW-001

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/1						SiL	Some muck/organic matter
1-5	10YR 4/1	70	7/5YR 4/6	10	C	PL	SiCL	
	10YR 6/2	20						
5+								Rock

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 136, 122**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 5+

Hydric Soil Present? Yes No

Remarks: **None.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-002
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR or MLRA): LRR N Lat: 40.418114 Long: -78.983483 Datum: NAD 83
 Soil Map Unit Name: LaD: Laidig gravelly 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-002. PEM, adjacent.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None.

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

Sampling Point: WPA-REW-002

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2.		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3.		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
4.		-	-	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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
5.		-	-	
6.		-	-	
7.		-	-	
8.		-	-	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. Absent		-	-	
2.		-	-	
3.		-	-	
4.		-	-	
5.		-	-	
6.		-	-	
7.		-	-	
8.		-	-	
9.		-	-	
10.		-	-	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Dichanthelium clandestinum</i>	60	YES	FAC	
2. <i>Microstegium vimineum</i>	30	YES	FAC	
3. <i>Juncus effusus</i>	5	NO	FACW	
4. <i>Scirpus cyperinus</i>	5	NO	FACW	
5.		-	-	
6.		-	-	
7.		-	-	
8.		-	-	
9.		-	-	
10.		-	-	
11.		-	-	
12.		-	-	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
1. Absent		-	-	
2.		-	-	
3.		-	-	
4.		-	-	
5.		-	-	
6.		-	-	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) None.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

SOIL

Sampling Point: WPA-REW-002

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 4/1	97	7.5YR 4/6	3	C	PL	SiCL	
12+								Rock

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

Restrictive Layer (if observed):
 Type: Rock
 Depth (inches): 12+

Hydric Soil Present? Yes No

Remarks: **None.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-003
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.404268 Long: -79.026034 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-003. PEM, adjacent. Located within hydric soil (USDA-NCSS). Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-3</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: Shallow aquitard (rock, coal spoil) 3+ inches below soil surface.	

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

Sampling Point: WPA-REW-003

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Total % Cover of: _____ Multiply by: _____
1. Absent		-	-	OBL species _____ x 1 = _____
2. _____		-	-	FACW species _____ x 2 = _____
3. _____		-	-	FAC species _____ x 3 = _____
4. _____		-	-	FACU species _____ x 4 = _____
5. _____		-	-	UPL species _____ x 5 = _____
6. _____		-	-	Column Totals: <u>0</u> (A) <u>0</u> (B)
7. _____		-	-	Prevalence Index = B/A = _____
8. _____		-	-	
9. _____		-	-	Hydrophytic Vegetation Indicators:
10. _____		-	-	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
	<u>0</u>	= Total Cover		<input type="checkbox"/> 2 - Dominance Test is >50%
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
1. Typha latifolia	70	YES	OBL	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Andropogon virginicus	15	NO	FACU	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. Andropogon glomeratus	10	NO	FACW	
4. Scirpus cyperinus	5	NO	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Scirpus atrovirens	5	NO	OBL	Definitions of Four Vegetation Strata:
6. Carex scoparia	5	NO	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>110</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. Absent		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
None.				

SOIL

Sampling Point: WPA-REW-003

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2	100					Muck	Muck/organic matter
1-3	10YR 4/1	62	7.5YR 5/8	3	C	M	SiCL	
	10YR 3/1	35						
3+								Rock/coal spoil

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock/coal spoil</u> Depth (inches): <u>3+</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks: **Soil is acting as hydric soil, as it is supporting a community dominated by obligate wetland vegetation. Wetland hydrology is also present.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-004
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.404459 Long: -79.026401 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-004. PEM, adjacent. Located within hydric soil (USDA-NCSS). Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: Shallow aquitard (rock, coal spoil) 2+ inches below soil surface.	

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

Sampling Point: WPA-REW-004

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Total % Cover of: _____ Multiply by: _____
1. Absent		-	-	OBL species _____ x 1 = _____
2. _____		-	-	FACW species _____ x 2 = _____
3. _____		-	-	FAC species _____ x 3 = _____
4. _____		-	-	FACU species _____ x 4 = _____
5. _____		-	-	UPL species _____ x 5 = _____
6. _____		-	-	Column Totals: <u>0</u> (A) <u>0</u> (B)
7. _____		-	-	Prevalence Index = B/A = _____
8. _____		-	-	
9. _____		-	-	Hydrophytic Vegetation Indicators:
10. _____		-	-	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
	<u>0</u>	= Total Cover		<input type="checkbox"/> 2 - Dominance Test is >50%
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
1. Scirpus cyperinus	25	YES	FACW	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Juncus effusus	20	YES	FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. Symphyotrichum lateriflorum	15	NO	FACW	
4. Apocynum cannabinum	15	NO	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Andropogon glomeratus	10	NO	FACW	Definitions of Four Vegetation Strata:
6. _____		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>85</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. Absent		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
Remaining herb cover is bare ground.				

SOIL

Sampling Point: WPA-REW-004

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2	100					Muck	
1-2	10YR 4/1	100					SiCL	Gravelly
2+								Rock/coal spoil

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock/coal spoil</u> Depth (inches): <u>2+</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks: **Soil is acting as hydric soil, as it is supporting a community dominated by facultative wet wetland vegetation. Wetland hydrology is also present.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-005
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.405143 Long: -79.02545 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-005. PEM, adjacent. Located within hydric soil (USDA-NCSS). Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-5</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
 Shallow aquitard (rock, coal spoil) 5+ inches below soil surface.

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

Sampling Point: WPA-REW-005

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	0	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Total % Cover of: _____ Multiply by: _____
1. <i>Platanus occidentalis</i>	5	YES	FACW	OBL species _____ x 1 = _____
2. <i>Cornus amomum</i>	5	YES	FACW	FACW species _____ x 2 = _____
3. _____		-	-	FAC species _____ x 3 = _____
4. _____		-	-	FACU species _____ x 4 = _____
5. _____		-	-	UPL species _____ x 5 = _____
6. _____		-	-	Column Totals: <u>0</u> (A) <u>0</u> (B)
7. _____		-	-	Prevalence Index = B/A = _____
8. _____		-	-	
9. _____		-	-	Hydrophytic Vegetation Indicators:
10. _____		-	-	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
	10	= Total Cover		<input type="checkbox"/> 2 - Dominance Test is >50%
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
1. <i>Typha latifolia</i>	75	YES	OBL	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <i>Juncus effusus</i>	10	NO	FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. <i>Scirpus cyperinus</i>	10	NO	FACW	
4. <i>Epilobium ciliatum</i>	10	NO	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____		-	-	Definitions of Four Vegetation Strata:
6. _____		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	105	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. Absent		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	0	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: WPA-REW-005

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2	100					Muck	
1-5	10YR 4/1	60					Loamy muck	
	10YR 3/3	40						
5+								Rock/coal spoil

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 136, 122**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 5+
 Depth (inches): Rock/coal spoil

Hydric Soil Present? Yes No

Remarks: **Soil is acting as hydric soil, as it is supporting a community dominated by facultative wet and obligate wetland vegetation. Wetland hydrology is also present.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-006
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.405327 Long: -79.02612 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-006. PEM, adjacent. Located within hydric soil (USDA-NCSS). Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-5</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: Shallow aquitard (rock, coal spoil) 5+ inches below soil surface.	

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

Sampling Point: WPA-REW-006

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
1. <u>Absent</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
<u>0</u> = Total Cover				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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>Spiraea tomentosa</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
<u>15</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Spiraea tomentosa</u>	<u>35</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Microstegium vimineum</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Andropogon virginicus</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>	
4. <u>Juncus effusus</u>	<u>20</u>	<u>NO</u>	<u>FACW</u>	
5. <u>Scirpus cyperinus</u>	<u>15</u>	<u>NO</u>	<u>FACW</u>	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
<u>125</u> = Total Cover				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>Absent</u>		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
<u>0</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.) <u>None.</u>				

SOIL

Sampling Point: WPA-REW-006

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2	100					Muck	
1-5	10YR 4/1	60					SiL	
	10YR 3/1	30						
5+								Rock/coal spoil

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock/coal spoil</u> Depth (inches): <u>5+</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks: **Soil is acting as hydric soil, as it is supporting a community dominated by facultative wet and facultative wetland vegetation. Wetland hydrology is also present.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-007
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.405822 Long: -79.025717 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-007. PEM, adjacent. Located within hydric soil (USDA-NCSS) and mapped FEMA floodplain. Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-8</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
 Shallow aquitard (rock, coal spoil) 8+ inches below soil surface.

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

Sampling Point: WPA-REW-007

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
1. <i>Spiraea tomentosa</i>	15	YES	FACW	
2. <i>Platanus occidentalis</i>	5	YES	FACW	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
	<u>20</u>	= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>5'</u>)				<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <i>Scirpus cyperinus</i>	35	YES	FACW	
2. <i>Spiraea tomentosa</i>	20	YES	FACW	
3. <i>Ludwigia alternifolia</i>	15	NO	FACW	
4. <i>Solidago rugosa</i>	10	NO	FAC	
5. <i>Typha latifolia</i>	10	NO	OBL	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>90</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata:
1. Absent		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				
Remaining herb cover is standing water.				

SOIL

Sampling Point: WPA-REW-007

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/1	100					Loamy muck	Some silt
8+								Rock/coal spoil

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock/coal spoil</u> Depth (inches): <u>8+</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks: **None.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-008
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.406043 Long: -79.025476 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-008. PFO, adjacent. Located within hydric soil (USDA-NCSS) and mapped FEMA floodplain. Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0.5</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: Shallow aquitard (rock, coal spoil) 10+ inches below soil surface.	

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

Sampling Point: WPA-REW-008

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)					
1. <u>Betula populifolia</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
2. _____	_____	-	-		
3. _____	_____	-	-		
4. _____	_____	-	-		
5. _____	_____	-	-		
6. _____	_____	-	-		
7. _____	_____	-	-		
8. _____	_____	-	-		
<u>30</u> = Total Cover				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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					
1. <u>Betula populifolia</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>		
2. _____	_____	-	-		
3. _____	_____	-	-		
4. _____	_____	-	-		
5. _____	_____	-	-		
6. _____	_____	-	-		
7. _____	_____	-	-		
8. _____	_____	-	-		
<u>5</u> = Total Cover					
Herb Stratum (Plot size: <u>5'</u>)					
1. <u>Microstegium vimineum</u>	<u>60</u>	<u>YES</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	_____	-	-		
3. _____	_____	-	-		
4. _____	_____	-	-		
5. _____	_____	-	-		
6. _____	_____	-	-		
7. _____	_____	-	-		
8. _____	_____	-	-		
9. _____	_____	-	-		
10. _____	_____	-	-		
11. _____	_____	-	-		
12. _____	_____	-	-		
<u>60</u> = Total Cover					
Woody Vine Stratum (Plot size: <u>30'</u>)					
1. <u>Absent</u>	_____	-	-	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.	
2. _____	_____	-	-		
3. _____	_____	-	-		
4. _____	_____	-	-		
5. _____	_____	-	-		
6. _____	_____	-	-		
<u>0</u> = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.) Remaining herb cover is moss/bare ground.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	

SOIL

Sampling Point: WPA-REW-008

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	Gley1 2.5/n	90	7.5YR 4/4	10	C	PL	SaL	
6-10	10YR 6/2	90	7.5YR 4/4	10	C	PL	SaCL	
10+								Rock/coal spoil

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (**LRR N, MLRA 147, 148**)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 136, 122**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock/coal spoil
 Depth (inches): 10+

Hydric Soil Present? Yes No

Remarks: **None.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-009
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.40561 Long: -79.024838 Datum: NAD 83
 Soil Map Unit Name: Pu: Purdy silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-009. PFO, adjacent. Located within hydric soil (USDA-NCSS) and mapped FEMA floodplain. Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1-10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: Shallow aquitard (rock, coal spoil) 10+ inches below soil surface.	

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

Sampling Point: WPA-REW-009

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				
1. <u>Betula populifolia</u>	30	YES	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. <u>Acer rubrum</u>	5	NO	FAC	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	35	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>Betula populifolia</u>	5	YES	FAC	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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
	5	= Total Cover		
Herb Stratum (Plot size: <u>5'</u>)				
1. <u>Mirostegium vimineum</u>	60	YES	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Osmundastrum cinnamomeum</u>	10	NO	FACW	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	70	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>Absent</u>		-	-	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
	0	= Total Cover		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

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

Remaining herb cover is bare ground.

SOIL

Sampling Point: WPA-REW-009

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 4/1	60	7.5YR 4/6	5	C	PL	SaCL	
	10YR 3/3	35						
10+								Rock/coal spoil

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

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

Restrictive Layer (if observed): Type: <u>Rock/coal spoil</u> Depth (inches): <u>10+</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: **None.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/6/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-010
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.404823 Long: -79.026389 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-010. PEM, adjacent. Located within hydric soil (USDA-NCSS) and mapped FEMA floodplain. Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
 Shallow aquitard (rock, coal spoil) 10+ inches below soil surface.

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

Sampling Point: WPA-REW-010

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30'</u>)					
1. <u>Absent</u>		-	-	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)	
2. _____		-	-		
3. _____		-	-		
4. _____		-	-		
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
	<u>0</u>	= Total Cover		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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					
1. <u>Spiraea tomentosa</u>	5	YES	FACW		
2. _____		-	-		
3. _____		-	-		
4. _____		-	-		
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
	<u>5</u>	= Total Cover			
Herb Stratum (Plot size: <u>5'</u>)					
1. <u>Juncus effusus</u>	40	YES	FACW	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u>Scirpus cyperinus</u>	30	YES	FACW		
3. <u>Apocynum cannabinum</u>	25	YES	FACU		
4. <u>Andropogon virginicus</u>	20	NO	FACU		
5. _____		-	-		
6. _____		-	-		
7. _____		-	-		
8. _____		-	-		
9. _____		-	-		
10. _____		-	-		
11. _____		-	-		
12. _____		-	-		
	<u>115</u>	= Total Cover			
Woody Vine Stratum (Plot size: <u>30'</u>)					
1. <u>Absent</u>		-	-	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.	
2. _____		-	-		
3. _____		-	-		
4. _____		-	-		
5. _____		-	-		
6. _____		-	-		
	<u>0</u>	= Total Cover			
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

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

None.

SOIL

Sampling Point: WPA-REW-010

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	5Y 2.1/1	90					Muck	
	10YR 4/1	10						
10+								

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input checked="" type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock/coal spoil</u> Depth (inches): <u>10+</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks: Soil is acting as hydric soil, as it is supporting a community dominated primarily by facultative wet wetland vegetation. Wetland hydrology is also present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/6/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-011
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.404115 Long: -79.026438 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland data form for WPA-REW-011. PEM, adjacent. Located within hydric soil (USDA-NCSS). Area is flat, compacted, and contains old coal spoil. Likely an old access road.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: Minimal soil present (<0.5 inch thick). Coal spoil does not allow for natural drainage.	

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

Sampling Point: WPA-REW-011

	Absolute % Cover	Dominant Species?	Indicator Status			
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:		
1. Absent		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)		
2.		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)		
3.		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)		
4.		-	-	Prevalence Index worksheet:		
5.		-	-		Total % Cover of: _____ Multiply by: _____	
6.		-	-		OBL species <u>0</u> x 1 = <u>0</u>	
7.		-	-		FACW species <u>45</u> x 2 = <u>90</u>	
8.		-	-		FAC species <u>0</u> x 3 = <u>0</u>	
0 = Total Cover				FACU species <u>35</u> x 4 = <u>140</u>		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				UPL species <u>5</u> x 5 = <u>25</u>		
1. Absent		-	-	Column Totals: <u>85</u> (A) <u>255</u> (B)		
2.		-	-	Prevalence Index = B/A = <u>3.00</u>		
3.		-	-	Hydrophytic Vegetation Indicators:		
4.		-	-		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
5.		-	-		<input type="checkbox"/> 2 - Dominance Test is >50%	
6.		-	-		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
7.		-	-		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
8.		-	-		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
9.		-	-		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
10.		-	-		Definitions of Four Vegetation Strata:	
0 = Total Cover						Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5'</u>)						Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
1. Scirpus cyperinus	45	YES	FACW	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
2. Andropogon virginicus	25	YES	FACU	Woody vine – All woody vines greater than 3.28 ft in height.		
3. Apocynum cannabinum	10	NO	FACU	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
4. Daucus carota	5	NO	UPL			
5.		-	-			
6.		-	-			
7.		-	-			
8.		-	-			
9.		-	-			
10.		-	-			
11.		-	-			
12.		-	-			
85 = Total Cover						
Woody Vine Stratum (Plot size: <u>30'</u>)						
1. Absent		-	-			
2.		-	-			
3.		-	-			
4.		-	-			
5.		-	-			
6.		-	-			
0 = Total Cover						
Remarks: (Include photo numbers here or on a separate sheet.)						
Remaining herb cover is open water.						

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: Upland -WPA-AMK-001
 Investigator(s): AMK/JRW Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex Slope (%): 25
 Subregion (LRR or MLRA): LRR N Lat: 40.404253 Long: -79.005369 Datum: NAD83
 Soil Map Unit Name: BeD—Bethesda very channery silt loam, 8 to 25 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <p align="center">Upland data point for WPA-AMK-001 PEM</p>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <p>N/A</p>	
Remarks: <p>None</p>	

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

Sampling Point: Upland -WPA-AMK-001

	Absolute % Cover	Dominant Species?	Indicator Status																													
Tree Stratum (Plot size: <u>30'</u>)																																
1. <u>Pinus strobus</u>	80	YES	FACU	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)																												
2. <u>Fagus grandifolia</u>	20	-	FACU																													
3. _____		-	-																													
4. _____		-	-																													
5. _____		-	-																													
6. _____		-	-																													
7. _____		-	-																													
8. _____		-	-																													
	100	= Total Cover																														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																																
1. <u>Pinus strobus</u>	5	NO	FACU	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">_____</td> <td style="text-align:right;">Multiply by:</td> <td style="text-align:center;">_____</td> </tr> <tr> <td>OBL species</td> <td style="text-align:center;">0</td> <td>x 1 =</td> <td style="text-align:center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;">0</td> <td>x 2 =</td> <td style="text-align:center;">0</td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;">0</td> <td>x 3 =</td> <td style="text-align:center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;">105</td> <td>x 4 =</td> <td style="text-align:center;">420</td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;">0</td> <td>x 5 =</td> <td style="text-align:center;">0</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;">105</td> <td>(A)</td> <td style="text-align:center;">420 (B)</td> </tr> </table> Prevalence Index = B/A = <u>4</u>	Total % Cover of:	_____	Multiply by:	_____	OBL species	0	x 1 =	0	FACW species	0	x 2 =	0	FAC species	0	x 3 =	0	FACU species	105	x 4 =	420	UPL species	0	x 5 =	0	Column Totals:	105	(A)	420 (B)
Total % Cover of:	_____	Multiply by:	_____																													
OBL species	0	x 1 =	0																													
FACW species	0	x 2 =	0																													
FAC species	0	x 3 =	0																													
FACU species	105	x 4 =	420																													
UPL species	0	x 5 =	0																													
Column Totals:	105	(A)	420 (B)																													
2. _____		-	-																													
3. _____		-	-																													
4. _____		-	-																													
5. _____		-	-																													
6. _____		-	-																													
7. _____		-	-																													
8. _____		-	-																													
9. _____		-	-																													
10. _____		-	-																													
	5	= Total Cover																														
Herb Stratum (Plot size: <u>5'</u>)																																
1. _____		-	-	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																												
2. _____		-	-																													
3. _____		-	-																													
4. _____		-	-																													
5. _____		-	-																													
6. _____		-	-																													
7. _____		-	-																													
8. _____		-	-																													
9. _____		-	-																													
10. _____		-	-																													
11. _____		-	-																													
12. _____		-	-																													
	0	= Total Cover																														
Woody Vine Stratum (Plot size: <u>30'</u>)																																
1. <u>None observed</u>		-	-	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																												
2. _____		-	-																													
3. _____		-	-																													
4. _____		-	-																													
5. _____		-	-																													
6. _____		-	-																													
	0	= Total Cover																														
<table style="width:100%; border:none;"> <tr> <td style="width:60%;">Hydrophytic Vegetation Present?</td> <td style="width:20%;">Yes _____</td> <td style="width:20%;">No <input checked="" type="checkbox"/></td> </tr> </table>					Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>																									
Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>																														
Remarks: (Include photo numbers here or on a separate sheet.) None																																

SOIL

Sampling Point: Upland -WPA-AMK-001

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 5/2	100					fibrous	root detritus
1-18	10YR 4/4	100					silt loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Cambria County Sampling Date: 07/10/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-001/002 UPL
 Investigator(s): JRW/AGS Section, Township, Range: Johnstown, PA
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5%
 Subregion (LRR or MLRA): LRR N Lat: 40.402857 Long: -78.924179 Datum: NAD83
 Soil Map Unit Name: HbB: Hazleton channery sandy loam, 3 to 8 percent slopes, extremely stony (541922) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland point for WPA-JRW-001/002</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-001/002 UPL

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:														
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)														
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>1</u> (B)														
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)														
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
	<u>0</u>	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>205</u> (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>55</u> (A)	<u>205</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>55</u> (A)	<u>205</u> (B)																	
1. <u>None</u>		-	-	Prevalence Index = B/A = <u>3.73</u>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Dennstaedtia punctilobula</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Smilax rotundifolia</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>															
3. <u>Rubus allegheniensis</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>															
4. <u>Lycopodium clavatum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
	<u>55</u>	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: <u>30'</u>)				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
	<u>0</u>	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		
<u>None</u>																		

SOIL

Sampling Point: WPA-JRW-001/002 UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 3/1	100					silt clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>4"</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Cambria County Sampling Date: 07/10/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-003 UPL
 Investigator(s): JRW/AGS Section, Township, Range: Johnstown, PA
 Landform (hillslope, terrace, etc.): Hilltop Local relief (concave, convex, none): Convex Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.403848 Long: -78.917865 Datum: NAD83
 Soil Map Unit Name: CeB: Cookport and Ernest soils, 3 to 8 percent slopes (541903) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Upland point for WPA-JRW-003</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-003 UPL

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
	<u>0</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<u> </u> Total % Cover of: <u> </u> Multiply by: <u> </u>
1. <u>Physocarpus opulifolius</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	OBL species <u>0</u> x 1 = <u>0</u>
2. _____		-	-	FACW species <u>20</u> x 2 = <u>40</u>
3. _____		-	-	FAC species <u>10</u> x 3 = <u>30</u>
4. _____		-	-	FACU species <u>45</u> x 4 = <u>180</u>
5. _____		-	-	UPL species <u>0</u> x 5 = <u>0</u>
6. _____		-	-	Column Totals: <u>75</u> (A) <u>250</u> (B)
7. _____		-	-	Prevalence Index = B/A = <u>3.33</u>
8. _____		-	-	Hydrophytic Vegetation Indicators:
9. _____		-	-	<u> </u> 1 - Rapid Test for Hydrophytic Vegetation
10. _____		-	-	<u> </u> 2 - Dominance Test is >50%
	<u>20</u>	= Total Cover		<u> </u> 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: <u>5'</u>)				<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Poaceae sp.</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Andropogon virginicus</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
3. <u>Solidago rugosa</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
4. <u>Rubus allegheniensis</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
	<u>55</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata:
1. <u>None observed</u>		-	-	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. _____		-	-	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3. _____		-	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. _____		-	-	Woody vine – All woody vines greater than 3.28 ft in height.
5. _____		-	-	
6. _____		-	-	
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>
Remarks: (Include photo numbers here or on a separate sheet.)				
<u>None</u>				

SOIL

Sampling Point: WPA-JRW-003 UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2"	10YR 4/3	100					silt clay loam	
2-4"	10YR 6/8	100					silt clay loam	

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>4"</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-004/005 UPL
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0-5%
 Subregion (LRR or MLRA): LRR N Lat: 40.411581 Long: -78.965910 Datum: NAD83
 Soil Map Unit Name: LaE: Laidig gravelly loam, 25 to 35 percent slopes, extremely stony (1720945) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Upland point for WPA-JRW-004/005</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-004/005 UPL

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)																				
1. <u>None observed</u>		-	-	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
	<u>0</u>	= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Betula lenta</u>	20	YES	FACU	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right">Total % Cover of:</td> <td style="width:50%; text-align:left">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>255</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = <u>3.92</u></td> </tr> </table> Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>255</u> (B)	Prevalence Index = B/A = <u>3.92</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>60</u>	x 4 = <u>240</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>65</u> (A)	<u>255</u> (B)																			
Prevalence Index = B/A = <u>3.92</u>																				
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
	<u>20</u>	= Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)																				
1. <u>Andropogon virginicus</u>	30	YES	FACU	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
2. <u>Dennstaedtia punctilobula</u>	5	NO	FACU																	
3. <u>Dichanthelium clandestinum</u>	5	NO	FAC																	
4. <u>Reynoutria japonica</u>	5	NO	FACU																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
	<u>45</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
	<u>0</u>	= Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)
None

SOIL

Sampling Point: WPA-JRW-004/005 UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 6/1	75	7.5YR 4/6	5	C	PL	sandy clay loam	
	10YR 3/1	20						

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

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) **(LRR N)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- Thin Dark Surface (S9) **(MLRA 147, 148)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- Umbric Surface (F13) **(MLRA 136, 122)**
- Piedmont Floodplain Soils (F19) **(MLRA 148)**
- Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(MLRA 147)**
- Coast Prairie Redox (A16) **(MLRA 147, 148)**
- Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 4"

Hydric Soil Present? Yes No

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-006 UPL
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3-5%
 Subregion (LRR or MLRA): LRR N Lat: 40.411673 Long: -78.968372 Datum: NAD83
 Soil Map Unit Name: HsD: Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony (1720958) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point for WPA-JRW-006 UPL</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-006 UPL

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>4</u> (B)																
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
4. _____		-	-	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>280</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.50</u></td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>280</u> (B)	Prevalence Index = B/A = <u>3.50</u>	
<u> </u> Total % Cover of:	<u> </u> Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>40</u>	x 3 = <u>120</u>																			
FACU species <u>40</u>	x 4 = <u>160</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>80</u> (A)	<u>280</u> (B)																			
Prevalence Index = B/A = <u>3.50</u>																				
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Smilax rotundifolia</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>																	
2. <u>Betula lenta</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>45</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>Dennstaedtia punctilobula</u>	<u>25</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>35</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Hydrophytic Vegetation Present? Yes <u> </u> No <input checked="" type="checkbox"/>																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-007 PEM
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Flat Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.412922 Long: -78.974121 Datum: NAD83
 Soil Map Unit Name: HxB: Hazleton-Clymer complex, 0 to 8 percent slopes, extremely stony (1720892) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland sample point for WPA-JRW-007 PEM	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None	

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

Sampling Point: WPA-JRW-007 PEM

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)																
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
4. _____		-	-	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>25</u> (A)</td> <td><u>105</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.20</u></td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>25</u> (A)	<u>105</u> (B)	Prevalence Index = B/A = <u>4.20</u>	
<u> </u> Total % Cover of:	<u> </u> Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>25</u> (A)	<u>105</u> (B)																			
Prevalence Index = B/A = <u>4.20</u>																				
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
	<u>0</u>	= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
	<u>0</u>	= Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>Lotus corniculatus</u>	10	YES	FACU																	
2. <u>Andropogon virginicus</u>	10	YES	FACU																	
3. <u>Leucanthemum vulgare</u>	5	YES	UPL																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
	<u>25</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
	<u>0</u>	= Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 07/11/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-008/009 UPL
 Investigator(s): JRW/AGS Section, Township, Range: East Wheatfield Township, PA
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.414786 Long: -78.981962 Datum: NAD83
 Soil Map Unit Name: LaD: Laidig gravelly loam, 8 to 25 percent slopes, extremely stony (1720944) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Upland point for WPA-JRW-008/009</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-008/009 UPL

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:																
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)																
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>1</u> (B)																
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
4. _____		-	-	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>255</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>60</u> (A)	<u>255</u> (B)	Prevalence Index = B/A = <u>4.25</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>45</u>	x 4 = <u>180</u>																			
UPL species <u>15</u>	x 5 = <u>75</u>																			
Column Totals: <u>60</u> (A)	<u>255</u> (B)																			
Prevalence Index = B/A = <u>4.25</u>																				
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
	<u>0</u>	= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>None</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
	<u>0</u>	= Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>Poa annua</u>	30	YES	FACU																	
2. <u>Leucanthemum vulgare</u>	10	NO	UPL																	
3. <u>Lotus corniculatus</u>	10	NO	FACU																	
4. <u>Plantago major</u>	5	NO	FACU																	
5. <u>Plantago lanceolata</u>	5	NO	UPL																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
	<u>60</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
	<u>0</u>	= Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																				
<u>None</u>																				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/12/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-010/011 UPL
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township, PA
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.40585 Long: -78.997117 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point for WPA-JRW-010/011</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-010/011 UPL

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)																				
1. <u>Acer saccharum</u>	10	YES	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.0%</u> (A/B)																
2. <u>Quercus rubra</u>	5	YES	FACU																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
	15	= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Betula lenta</u>	10	YES	FACU	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>25</u></td> <td>x 4 = <u>100</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>30</u> (A)</td> <td><u>115</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.83</u></td> </tr> </table> Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>25</u>	x 4 = <u>100</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>30</u> (A)	<u>115</u> (B)	Prevalence Index = B/A = <u>3.83</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>25</u>	x 4 = <u>100</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>30</u> (A)	<u>115</u> (B)																			
Prevalence Index = B/A = <u>3.83</u>																				
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
	10	= Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)																				
1. <u>Dichanthelium clandestinum</u>	5	YES	FAC	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
	5	= Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
	0	= Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)
None

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-012 PEM
 Investigator(s): JRW/AGS Section, Township, Range: Seward, PA
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.401935 Long: -79.003035 Datum: NAD83
 Soil Map Unit Name: LaD: Laidig gravelly loam, 8 to 25 percent slopes, extremely stony (544615) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Upland sample point for WPA-JRW-012</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-012 PEM

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:														
1. <u>Acer rubrum</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)														
2. <u>Quercus rubra</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)														
3. _____	_____	-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)														
4. _____	_____	-	-															
5. _____	_____	-	-															
6. _____	_____	-	-															
7. _____	_____	-	-															
8. _____	_____	-	-															
	<u>20</u>	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>210</u> (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>50</u>	x 3 = <u>150</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>210</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>50</u>	x 3 = <u>150</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>65</u> (A)	<u>210</u> (B)																	
1. <u>Smilax rotundifolia</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	Prevalence Index = B/A = <u>3.23</u>														
2. _____	_____	-	-															
3. _____	_____	-	-															
4. _____	_____	-	-															
5. _____	_____	-	-															
6. _____	_____	-	-															
7. _____	_____	-	-															
8. _____	_____	-	-															
9. _____	_____	-	-															
10. _____	_____	-	-															
	<u>30</u>	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Acer rubrum</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>															
3. <u>Betula lenta</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>															
4. _____	_____	-	-															
5. _____	_____	-	-															
6. _____	_____	-	-															
7. _____	_____	-	-															
8. _____	_____	-	-															
9. _____	_____	-	-															
10. _____	_____	-	-															
11. _____	_____	-	-															
12. _____	_____	-	-															
	<u>15</u>	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: <u>30'</u>)				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. <u>None observed</u>	_____	-	-	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
2. _____	_____	-	-															
3. _____	_____	-	-															
4. _____	_____	-	-															
5. _____	_____	-	-															
6. _____	_____	-	-															
	<u>0</u>	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-013/014 UPL
 Investigator(s): JRW/AGS Section, Township, Range: Seward, PA
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.399877 Long: -79.013402 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Upland sample for point WPA-JRW-013/014</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-013/014 UPL

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:
1. <u>Liriodendron tulipifera</u>	<u>10</u>	<u>-</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u>Nyssa sylvatica</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. <u>Quercus rubra</u>	<u>5</u>	<u>-</u>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0%</u> (A/B)
4. _____	_____	<u>-</u>	<u>-</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>35</u> x 3 = <u>105</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>70</u> (A) <u>205</u> (B) Prevalence Index = B/A = <u>2.93</u>
5. _____	_____	<u>-</u>	<u>-</u>	
6. _____	_____	<u>-</u>	<u>-</u>	
7. _____	_____	<u>-</u>	<u>-</u>	
8. _____	_____	<u>-</u>	<u>-</u>	
<u>25</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1. <u>None</u>	_____	<u>-</u>	<u>-</u>	
2. _____	_____	<u>-</u>	<u>-</u>	
3. _____	_____	<u>-</u>	<u>-</u>	
4. _____	_____	<u>-</u>	<u>-</u>	
5. _____	_____	<u>-</u>	<u>-</u>	
6. _____	_____	<u>-</u>	<u>-</u>	
7. _____	_____	<u>-</u>	<u>-</u>	
8. _____	_____	<u>-</u>	<u>-</u>	
9. _____	_____	<u>-</u>	<u>-</u>	
10. _____	_____	<u>-</u>	<u>-</u>	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Andropogon glomeratus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Microstegium vimineum</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
4. _____	_____	<u>-</u>	<u>-</u>	
5. _____	_____	<u>-</u>	<u>-</u>	
6. _____	_____	<u>-</u>	<u>-</u>	
7. _____	_____	<u>-</u>	<u>-</u>	
8. _____	_____	<u>-</u>	<u>-</u>	
9. _____	_____	<u>-</u>	<u>-</u>	
10. _____	_____	<u>-</u>	<u>-</u>	
11. _____	_____	<u>-</u>	<u>-</u>	
12. _____	_____	<u>-</u>	<u>-</u>	
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u>)				
1. <u>None observed</u>	_____	<u>-</u>	<u>-</u>	
2. _____	_____	<u>-</u>	<u>-</u>	
3. _____	_____	<u>-</u>	<u>-</u>	
4. _____	_____	<u>-</u>	<u>-</u>	
5. _____	_____	<u>-</u>	<u>-</u>	
6. _____	_____	<u>-</u>	<u>-</u>	
<u>0</u> = Total Cover				
Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.) <u>None</u>				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-015/016 UPL
 Investigator(s): JRW/AGS Section, Township, Range: Seward, Pennsylvania
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-3%
 Subregion (LRR or MLRA): LRR N Lat: 40.401351 Long: -79.018535 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point for WPA-JRW-015/016</u>	

HYDROLOGY


Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-015/016 UPL

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:														
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)														
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>4</u> (B)														
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)														
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
	<u>0</u>	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>45</u> (A)</td> <td><u>170</u> (B)</td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>45</u> (A)	<u>170</u> (B)
<u> </u> Total % Cover of:	<u> </u> Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>5</u>	x 2 = <u>10</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>45</u> (A)	<u>170</u> (B)																	
1. <u>Hamamelis virginiana</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	Prevalence Index = B/A = <u>3.78</u>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
	<u>10</u>	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Andropogon virginicus</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Dennstaedtia punctilobula</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>															
3. <u>Pteridium aquilinum</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>															
4. <u>Andropogon glomeratus</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
	<u>35</u>	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: <u>30'</u>)				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
	<u>0</u>	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-017/018/019 
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.402298 Long: -79.021274 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point for WPA-JRW-017/018/019</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-017/018/01

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30')				Dominance Test worksheet:														
1. None observed		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)														
2.		-	-	Total Number of Dominant Species Across All Strata: 5 (B)														
3.		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)														
4.		-	-															
5.		-	-															
6.		-	-															
7.		-	-															
8.		-	-															
	0	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: 15')				<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 25</td> <td>x 2 = 50</td> </tr> <tr> <td>FAC species 30</td> <td>x 3 = 90</td> </tr> <tr> <td>FACU species 25</td> <td>x 4 = 100</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 80 (A)</td> <td>240 (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 25	x 2 = 50	FAC species 30	x 3 = 90	FACU species 25	x 4 = 100	UPL species 0	x 5 = 0	Column Totals: 80 (A)	240 (B)
Total % Cover of:	Multiply by:																	
OBL species 0	x 1 = 0																	
FACW species 25	x 2 = 50																	
FAC species 30	x 3 = 90																	
FACU species 25	x 4 = 100																	
UPL species 0	x 5 = 0																	
Column Totals: 80 (A)	240 (B)																	
1. Hamamelis virginiana	10	YES	FACU	Prevalence Index = B/A = 3.00														
2.		-	-															
3.		-	-															
4.		-	-															
5.		-	-															
6.		-	-															
7.		-	-															
8.		-	-															
9.		-	-															
10.		-	-															
	10	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: 5')				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. Rubus hispidus	20	YES	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. Dennstaedtia punctilobula	15	YES	FACU															
3. Dichanthelium clandestinum	15	YES	FAC															
4. Solidago rugosa	15	YES	FAC															
5. Andropogon glomeratus	5	NO	FACW															
6.		-	-															
7.		-	-															
8.		-	-															
9.		-	-															
10.		-	-															
11.		-	-															
12.		-	-															
	70	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: 30')				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. None observed		-	-	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
2.		-	-															
3.		-	-															
4.		-	-															
5.		-	-															
6.		-	-															
	0	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		
None																		

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/13/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-020 UPL
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.403071 Long: -79.022993 Datum: NAD83
 Soil Map Unit Name: Ph: Philo loam, 0 to 3 percent slopes, occasionally flooded (544648) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland sample point for WPA-JRW-020 PEM/PSS	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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

Remarks:
None

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

Sampling Point: WPA-JRW-020 UPL

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>35</u> (A)</td> <td><u>130</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.71</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>35</u> (A)	<u>130</u> (B)	Prevalence Index = B/A = <u>3.71</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals: <u>35</u> (A)	<u>130</u> (B)																			
Prevalence Index = B/A = <u>3.71</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. _____		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)																				
1. <u>Smilax rotundifolia</u>	10	YES	FAC																	
2. <u>Dichanthelium clandestinum</u>	10	YES	FAC																	
3. <u>Hamamelis virginiana</u>	5	NO	FACU																	
4. <u>Leucanthemum vulgare</u>	5	NO	UPL																	
5. <u>Plantago lanceolata</u>	5	NO	UPL																	
6. _____		-	-																	
7. _____		-	-																	
8. _____		-	-																	
9. _____		-	-																	
10. _____		-	-																	
11. _____		-	-																	
12. _____		-	-																	
<u>35</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. <u>None observed</u>		-	-																	
2. _____		-	-																	
3. _____		-	-																	
4. _____		-	-																	
5. _____		-	-																	
6. _____		-	-																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) None				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

SOIL

Sampling Point: WPA-JRW-020 UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 3/3	100					silt clay loam	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

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

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>4"</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks: **None**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 07/14/2023
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-022/023 UPL
 Investigator(s): JRW/AGS Section, Township, Range: St Clair Township
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404572 Long: -79.027004 Datum: NAD83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 percent slopes (544607) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland sample point for WPA-JRW-022/023</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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


Remarks:
None

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

Sampling Point: WPA-JRW-022/023 UPL

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet:														
1. <u>None observed</u>		-	-	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)														
2. _____		-	-	Total Number of Dominant Species Across All Strata: <u>2</u> (B)														
3. _____		-	-	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)														
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
	<u>0</u>	= Total Cover		Prevalence Index worksheet:														
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				<table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>255</u> (B)</td> </tr> </table>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>255</u> (B)
<u> </u> Total % Cover of:	<u> </u> Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>5</u>	x 3 = <u>15</u>																	
FACU species <u>60</u>	x 4 = <u>240</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>65</u> (A)	<u>255</u> (B)																	
1. <u>None</u>		-	-	Prevalence Index = B/A = <u>3.92</u>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators:														
Herb Stratum (Plot size: <u>5'</u>)				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Solidago canadensis</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Lotus corniculatus</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>															
3. <u>Apocynum cannabinum</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>															
4. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
	<u>65</u>	= Total Cover		Definitions of Four Vegetation Strata:														
Woody Vine Stratum (Plot size: <u>30'</u>)				<p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p>														
1. <u>None observed</u>		-	-	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>														
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
	<u>0</u>	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		
<u>None</u>																		

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-024-25-26 
 Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404575 Long: -79.017477 Datum: NAD83
 Soil Map Unit Name: BuB: Buchanan loam, 0 to 8 percent slopes, extremely stony (544628) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland data point for WPA-JRW-024/025/026</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-0241-25-26

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
1. <u>Acer rubrum</u>	<u>80</u>	<u>YES</u>	<u>FAC</u>																	
2. <u>Betula lenta</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>																	
3. _____	_____	<u>-</u>	<u>-</u>																	
4. _____	_____	<u>-</u>	<u>-</u>																	
5. _____	_____	<u>-</u>	<u>-</u>																	
6. _____	_____	<u>-</u>	<u>-</u>																	
7. _____	_____	<u>-</u>	<u>-</u>																	
8. _____	_____	<u>-</u>	<u>-</u>																	
<u>90</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>95</u></td> <td>x 3 = <u>285</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>425</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.27</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>95</u>	x 3 = <u>285</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u> (A)	<u>425</u> (B)	Prevalence Index = B/A = <u>3.27</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>95</u>	x 3 = <u>285</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>130</u> (A)	<u>425</u> (B)																			
Prevalence Index = B/A = <u>3.27</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Fagus grandifolia</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>																	
2. <u>Acer rubrum</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>																	
3. <u>Quercus alba</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>																	
4. <u>Hamamelis virginiana</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>																	
5. <u>Lindera benzoin</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>																	
6. _____	_____	<u>-</u>	<u>-</u>																	
7. _____	_____	<u>-</u>	<u>-</u>																	
8. _____	_____	<u>-</u>	<u>-</u>																	
9. _____	_____	<u>-</u>	<u>-</u>																	
10. _____	_____	<u>-</u>	<u>-</u>																	
<u>30</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <u>Microstegium vimineum</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>																	
2. <u>Dendrolycopodium obscurum</u>	<u>5</u>	<u>YES</u>	<u>FACU</u>																	
3. _____	_____	<u>-</u>	<u>-</u>																	
4. _____	_____	<u>-</u>	<u>-</u>																	
5. _____	_____	<u>-</u>	<u>-</u>																	
6. _____	_____	<u>-</u>	<u>-</u>																	
7. _____	_____	<u>-</u>	<u>-</u>																	
8. _____	_____	<u>-</u>	<u>-</u>																	
9. _____	_____	<u>-</u>	<u>-</u>																	
10. _____	_____	<u>-</u>	<u>-</u>																	
11. _____	_____	<u>-</u>	<u>-</u>																	
12. _____	_____	<u>-</u>	<u>-</u>																	
<u>10</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. <u>None observed</u>	_____	<u>-</u>	<u>-</u>																	
2. _____	_____	<u>-</u>	<u>-</u>																	
3. _____	_____	<u>-</u>	<u>-</u>																	
4. _____	_____	<u>-</u>	<u>-</u>																	
5. _____	_____	<u>-</u>	<u>-</u>																	
6. _____	_____	<u>-</u>	<u>-</u>																	
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) None				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward 230kV Transmission Line Rebuild City/County: Westmoreland County Sampling Date: 09/24/2024
 Applicant/Owner: First Energy State: PA Sampling Point: WPA-JRW-027/028 UPL
 Investigator(s): JRW/AMK Section, Township, Range: Area not divided under PLSS
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): No relief Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR N Lat: 40.404325 Long: -79.014496 Datum: NAD83
 Soil Map Unit Name: BeD: Bethesda very channery silt loam, 8 to 25 percent slopes (544559) 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>Upland data point for WPA-JRW-027/028</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u>N/A</u>	
Remarks: <u>None</u>	

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

Sampling Point: WPA-JRW-027/028 UPL

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)														
1. <u>None observed</u>		-	-															
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u> </u> Total % Cover of:</td> <td style="width:50%;"><u> </u> Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>225</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.09</u>	<u> </u> Total % Cover of:	<u> </u> Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>55</u> (A)	<u>225</u> (B)
<u> </u> Total % Cover of:	<u> </u> Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>50</u>	x 4 = <u>200</u>																	
UPL species <u>5</u>	x 5 = <u>25</u>																	
Column Totals: <u>55</u> (A)	<u>225</u> (B)																	
1. <u>None observed</u>		-	-															
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Andropogon virginicus</u>	<u>50</u>	<u>YES</u>	<u>FACU</u>															
2. <u>Solidago nemoralis</u>	<u>5</u>	<u>NO</u>	<u>UPL</u>															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
7. _____		-	-															
8. _____		-	-															
9. _____		-	-															
10. _____		-	-															
11. _____		-	-															
12. _____		-	-															
<u>55</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.														
1. <u>None observed</u>		-	-															
2. _____		-	-															
3. _____		-	-															
4. _____		-	-															
5. _____		-	-															
6. _____		-	-															
<u>0</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
<u>None</u>																		
Hydrophytic Vegetation Present? Yes <u> </u> No <input checked="" type="checkbox"/>																		

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Indiana County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-001-002 UPL
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 3
 Subregion (LRR or MLRA): LRR N Lat: 40.418273 Long: -78.984105 Datum: NAD 83
 Soil Map Unit Name: LaD: Laidig gravelly 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland data form for WPA-REW-001 and WPA-REW-002.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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

Remarks:
None.

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

Sampling Point: WPA-REW-001-002 UPL

	Absolute % Cover	Dominant Species?	Indicator Status				
Tree Stratum (Plot size: <u>30'</u>)							
1. <u>Acer rubrum</u>	10	YES	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0%</u> (A/B)			
2. <u>Prunus serotina</u>	10	YES	FACU				
3. _____	-	-	-				
4. _____	-	-	-				
5. _____	-	-	-				
6. _____	-	-	-				
7. _____	-	-	-				
8. _____	-	-	-				
	20	= Total Cover					
Sapling/Shrub Stratum (Plot size: <u>15'</u>)							
1. <u>Lindera benzoin</u>	15	YES	FAC	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: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____			
2. <u>Acer rubrum</u>	5	YES	FAC				
3. <u>Berberis thunbergii</u>	5	YES	FACU				
4. _____	-	-	-				
5. _____	-	-	-				
6. _____	-	-	-				
7. _____	-	-	-				
8. _____	-	-	-				
9. _____	-	-	-				
10. _____	-	-	-				
	25	= Total Cover					
Herb Stratum (Plot size: <u>5'</u>)							
1. <u>Absent</u>	-	-	-	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
2. _____	-	-	-				
3. _____	-	-	-				
4. _____	-	-	-				
5. _____	-	-	-				
6. _____	-	-	-				
7. _____	-	-	-				
8. _____	-	-	-				
9. _____	-	-	-				
10. _____	-	-	-				
11. _____	-	-	-				
12. _____	-	-	-				
	0	= Total Cover					
Woody Vine Stratum (Plot size: <u>30'</u>)							
1. <u>Absent</u>	-	-	-	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.			
2. _____	-	-	-				
3. _____	-	-	-				
4. _____	-	-	-				
5. _____	-	-	-				
6. _____	-	-	-				
	0	= Total Cover					
<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Hydrophytic Vegetation Present?</td> <td style="width: 20%; text-align: center;">Yes <input checked="" type="checkbox"/></td> <td style="width: 20%; text-align: center;">No <input type="checkbox"/></td> </tr> </table>					Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>					
Remarks: (Include photo numbers here or on a separate sheet.) None.							

SOIL

Sampling Point: WPA-REW-001-002 UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/3	100					SiL	
5+								Rock/roots

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


Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

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

Restrictive Layer (if observed): Type: <u>Rock/roots</u> Depth (inches): <u>5+</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks: **None.**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-003/004/0 
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.404402 Long: -79.026255 Datum: NAD 83
 Soil Map Unit Name: TyA: Tyler silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland data form for WPA-REW-003, WPA-REW-004, WPA-REW-011. Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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


Remarks:
None.

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

Sampling Point: WPA-REW-003/004/0

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: 30')				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
1. Absent		-	-																	
2.		-	-																	
3.		-	-																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
7.		-	-																	
8.		-	-																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: 15')				Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: right;">Total % Cover of:</td> <td style="width: 50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>405</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.05</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>100</u> (A)	<u>405</u> (B)	Prevalence Index = B/A = <u>4.05</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>15</u>	x 5 = <u>75</u>																			
Column Totals: <u>100</u> (A)	<u>405</u> (B)																			
Prevalence Index = B/A = <u>4.05</u>																				
1. Absent		-	-																	
2.		-	-																	
3.		-	-																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
7.		-	-																	
8.		-	-																	
9.		-	-																	
10.		-	-																	
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: 5')				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <i>Andropogon virginicus</i>	80	YES	FACU																	
2. <i>Daucus carota</i>	15	NO	UPL																	
3. <i>Scirpus cyperinus</i>	5	NO	FACW																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
7.		-	-																	
8.		-	-																	
9.		-	-																	
10.		-	-																	
11.		-	-																	
12.		-	-																	
<u>100</u> = Total Cover																				
Woody Vine Stratum (Plot size: 30')				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. Absent		-	-																	
2.		-	-																	
3.		-	-																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
<u>0</u> = Total Cover																				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) None.																				

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Johnstown-Seward City/County: Westmoreland County Sampling Date: 2/5/25
 Applicant/Owner: FirstEnergy State: PA Sampling Point: WPA-REW-05/06/07/0 
 Investigator(s): REW, JAH Section, Township, Range: PA not divided under PLSS.
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.40567 Long: -79.025539 Datum: NAD 83
 Soil Map Unit Name: Pu: Purdy silt loam, 0 to 2 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 , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland data form for WPA-REW-005, WPA-REW-006, WPA-REW-007, WPA-REW-008, WPA-REW-009, and WPA-REW-010. Area is flat, compacted, and contains old coal spoil.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A	
Remarks: None.	

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

Sampling Point: WPA-REW-05/06/07/08

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20.0%</u> (A/B)																
1. Absent		-	-																	
2.		-	-																	
3.		-	-																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
7.		-	-																	
8.		-	-																	
<u>0</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: right;">Total % Cover of:</td> <td style="width: 50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>265</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.08</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>65</u> (A)	<u>265</u> (B)	Prevalence Index = B/A = <u>4.08</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals: <u>65</u> (A)	<u>265</u> (B)																			
Prevalence Index = B/A = <u>4.08</u>																				
1. <i>Betula populifolia</i>	5	YES	FAC																	
2.		-	-																	
3.		-	-																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
7.		-	-																	
8.		-	-																	
9.		-	-																	
10.		-	-																	
<u>5</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
1. <i>Andropogon virginicus</i>	20	YES	FACU																	
2. <i>Caucus carota</i>	10	YES	UPL																	
3. <i>Solidago canadensis</i>	10	YES	FACU																	
4. <i>Dipsacus fullonum</i>	10	YES	FACU																	
5. <i>Plantago major</i>	5	NO	FACU																	
6. <i>Trifolium pratense</i>	5	NO	FACU																	
7.		-	-																	
8.		-	-																	
9.		-	-																	
10.		-	-																	
11.		-	-																	
12.		-	-																	
<u>60</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.																
1. Absent		-	-																	
2.		-	-																	
3.		-	-																	
4.		-	-																	
5.		-	-																	
6.		-	-																	
<u>0</u> = Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 Remaining herb cover is mixed grasses.

Hydrophytic Vegetation Present? Yes No

APPENDIX D

Resumes of Field Staff



Aimee Kay, PWS, MS
Environmental Manager 2

Education

MS, 2007, Urban and Regional Planning,
Eastern Michigan University

BA, 1986, Environmental
Studies/Geography, Edinboro University of
Pennsylvania

Skills

Natural Resource Management &
Permitting

Electrical Transmission Line Siting

Ecological Studies

Wetland Delineation & Mitigation

RTE Species Surveys & Inventories

Certifications/Training

Professional Wetland Scientist (PWS):
#2092

Pennsylvania Wild Plant Mgmt. Permit

USACE Wetland Delineation Training, #409

Industry Experience

GAI Consultants, Inc., 2010 - Present

Michigan Natural Features Inventory, 2009
2010

Kay Environmental & Associates, LLC,
1992-2010

JCK & Associates, 1990-1992, 1999 2003

Washtenaw County Water Resources
Commission, 1990

Institute for Fisheries Research, Michigan
Department of Natural Resources, 1989

Southeast Michigan Council of Govts.,
1987-1988

Northeast Ohio Coordinating Agency, 1986

Professional Summary

Ms. Kay specializes in natural resources management and permitting, urban and regional planning, and scientific-based research studies, including collecting records and evaluating ecological field data, conducting Rare, Threatened, and Endangered (RTE) species surveys and biological inventories. She manages wetland, stream, woodland and natural resource inventories, delineations, restoration, enhancement, permitting, mitigation and monitoring services. Ms. Kay has over 20 years of project management experience, and over 30 years of experience in providing environmental studies and permitting services. She has demonstrated leadership skills as an Environmental Manager, and her skills include project management, technical plan and report writing, and business development. She has provided project environmental services in Pennsylvania, Michigan, Ohio, Indiana, Texas, West Virginia, New York, Maryland, and Virginia.

Professional Experience

- Erie to South Substation Expansion Project and Rebuild, FirstEnergy Corporation (FirstEnergy), Erie County, Pennsylvania. Project Manager. Managed various aspects of environmental assessments, environmental inspections, and directed staff on the execution of tasks including National Pollutant Discharge Elimination System (NPDES) permitting, local land development permits, road permits and wetland and stream delineation work.
- Erie-West Substation Reconfiguration and Reconductor Project, FirstEnergy, Erie County, Pennsylvania. Project Manager. Managed various aspects of environmental assessments, environmental inspections, and directed staff on the execution of tasks including NPDES permitting, botanical survey, and wetland and stream delineation work.
- Campbell to McDowell 138kV Transmission Line Rebuild Project, FirstEnergy, Western Pennsylvania. Project Task Manager. Provided oversight and environmental services for rare plant and Eastern Massasauga Rattlesnake surveys and monitoring. Directed staff on the execution of tasks including environmental permitting and wetland and stream delineations.
- Campbell to Keister 138kV Transmission Line Rebuild Project, FirstEnergy, Western Pennsylvania. Project Task Manager. Provided oversight for rare plant and Eastern Massasauga Rattlesnake surveys. Directed staff on the execution of tasks

including environmental permitting and wetland and stream delineations.

- Campbell to McDowell 138kV Transmission Line Rebuild Project, FirstEnergy, Western Pennsylvania. Surveyed for special concern species Roundleaf serviceberry (*Amelanchier sanguinea*), queen-of-the-prairie (*Filipendula rubra*), and water-plantain spearwort (*Ranunculus ambigens*), highbush-cranberry (*Viburnum trilobum*), bog goldenrod (*Solidago uliginosa*), and Northern small yellow lady's-slipper (*Cypripedium parviflorum var. makasin*).
- Lewis Run to Pierce Brook 230kV Transmission Line Project, FirstEnergy, Pennsylvania. Surveyed for oblong-fruited serviceberry (*Amelanchier bartramiana*), creeping snowberry (*Gaultheria hispidula*), and Case's ladies'-tresses (*Spiranthes casei*).
- Low Pressure East Upgrade Post Construction Monitoring Project, Confidential Client Western Pennsylvania. Project Manager. Managed and directed environmental staff for post-construction wetland and stream monitoring and delineation tasks.
- 27-mile Transmission Line Rebuild Project, Texas. Project Manager. Responsibilities include wetland and stream field investigations and reports, RTE field investigations and habitat report. Project management oversight for all environmental tasks including cultural resources investigation deliverables.
- 76-Mile, 345kV Transmission Line Project, Oklahoma. Project Manager. Responsibilities include wetland and stream field investigations and reports, RTE field investigations and habitat report. Project management oversight for all environmental tasks including cultural resources investigation deliverables.
- Area Improvements Project, West Virginia. Project Manager for conducting environmental studies and cultural resources consulting services to provide supporting documentation, drawings, and specifications necessary for others to prepare permit applications for approximately 27 miles of new proposed transmission line routes and up to 64 miles of new and upgraded access roads.
- 46kV Transmission Line Rebuild Project, West Virginia. Project Manager for conducting environmental and cultural resources consulting services to evaluate project. Project includes approximately 2.7 miles of added and/or revised access roads and approximately 40.7 acres of workspace to be studied for cultural resources and environmental features.
- Pipeline Project, West Virginia. Project Manager. GAI provided wetland and stream field identifications and the Wetland and Stream Field Identification Report. GAI obtained wetland and stream Obstruction Encroachment permits for this project.
- Heinze Big Slough Mitigation Site, Columbia County, Wisconsin, Wisconsin Department of Natural Resources (WDNR). Provided invasive species analysis and wetland and stream delineation for the development of this Wetland ILF Mitigation Project located in the southwestern portion of the Upper Fox River Watershed and the Big Slough Watershed of Neenah Creek, and within two privately owned parcels of approximately 80 acres.
- McMillan Marsh Project, Marathon County, WDNR. Provided vegetation analysis for the development of an In-Lieu Fee (ILF) mitigation site approved by the WDNR. GAI is responsible for site identification, drafting, and finalizing a prospectus (Conceptual Mitigation Plan), baseline condition data collection, topographic and geomorphic survey, permitting, and design services.
- Managed over 20 wetland and stream delineation projects for several energy clients throughout Ohio.
- Wind Farm Project, Pennsylvania. Project Manager. Directed staff and subconsultants for invasive plant species survey and monitoring of a portion of the existing overhead transmission line.
- 69kV Transmission Line Extension Projects, West Virginia. Project Task Manager. GAI provided environmental services for the siting of these projects.
- 46kV Transmission Line Rebuild Project, West Virginia. Project Task Manager. GAI provided environmental services for this project.

- 69kV Transmission Line Rebuild Project, Ohio. Project Task Manager. GAI engineered a complete rebuild of the existing 9.7-mile transmission line. The new line was designed and constructed for future 138kV operation and utilizes galvanized steel transmission poles in place of the existing wood poles.
- Roadway Project, Confidential Transportation Client, Pennsylvania. Project Manager (Environmental). Provided oversight design services, including replacing or eliminating mainline and overhead structures. Managed in-house wetland and stream mitigation design plans and subconsultant tasks with the Client, site selection study the design manager and outside agencies. Provided oversight on environmental tasks for roadway plans, Right-of-Way (ROW) plans, Erosion and Sediment Control (E&SC) plans, Environmental Site Assessments (ESAs), cultural resources investigation, and construction drawings and Joint Permit Application for the Client.
- 138kV Transmission Line Project, Pennsylvania. Project Task Manager. Responsibilities include alternatives development, route analysis and selection, agency coordination, wetland and stream field investigations and reports, siting study and environmental assessment report, preparation of Pennsylvania Public Utility Commission (PAPUC) application and filing materials, public meeting participation and displays, and preparation of environmental permitting.
- Wind Project, Carbon County, Pennsylvania. Project Manager. Managed the archaeological and architectural/historical review and permitting which includes a five-mile radius for the Project's Area of Potential Effect.
- Substation Expansion Project, Pennsylvania. Project Manager. Directed staff for wetland mitigation procurement, sub consultant tasks, environmental tasks for permitting, wetland and stream delineation work, Eastern Massasauga Rattlesnake habitat survey, National Pollutant Discharge Elimination System (NPDES), local land development permits, road permits, and geotechnical.
- Substation Project, Virginia. Project Task Manager. Managed various aspects of environmental assessments, environmental inspections, and directed staff on the execution of tasks including NPDES permitting, botanical survey, and wetland and stream delineation work.
- 138kV Transmission Line Reconductor and Rebuild Project, Pennsylvania. Project Task Manager. Responsibilities included alternatives development, route analysis and selection, agency coordination, wetland and stream field investigations and reports, siting study and environmental assessment report, preparation of PAPUC application and filing materials, public meeting participation and displays, and preparation of environmental permitting.
- Acid Mine Drainage Wetland and Pond Design Project, Confidential Client, Pennsylvania. Project Design Lead.
- 30+ Marcellus Pipeline Projects, Northeastern and Southwestern Pennsylvania. Assistant Project Manager for over 30 Marcellus pipeline projects. Efforts included environmental permitting and coordination with the U.S. Army Corps of Engineers (USACE) and Pennsylvania Department of Environmental Protection (PaDEP), wetland and stream delineations, site designer for proposed wetland and stream mitigation plans and reporting, and endangered species investigations.
- Residential Wetland Mitigation. Project Manager. Completed wetland planning, site selection, design, construction documents, construction inspection, and monitoring for a 1.15-acre wetland and a 0.64-acre pond to mitigate the impacts of unavoidable road construction.
- River Bridge Wetland Mitigation Project, Confidential City, Michigan. Project Manager. Conducted wetland delineations for the project involving construction of new roadway crossings over a river and creek. Oversaw permitting issues to compensate for wetlands filled to allow for road and bridge construction. 2.04 acres of new wetland was created, and the mitigation area is connected by a spillway to a tributary of the river. Obtained Michigan Department of Natural Resources (MDNR) approval and provided design, planting plan, and additional design features of signage and wood duck boxes and nesting islands to increase habitat potential. Performed the mitigation monitoring for several years for MDNR submittal.

- Design/Mitigation Project, Confidential City, Michigan. Project Wetland Specialist. Conducted wetland delineations, environmental planning, design, permitting and monitoring for a Detention Basin/Mitigation project. The Contract Special Assessment District included 150 acres of watershed area to provide detention and wetland mitigation for a large planned unit development project.
- 1.5-Acre Wetland Mitigation Project, Michigan. Project Manager. Completed wetland planning, site selection, local and state permitting, design, construction documents, construction inspection, and monitoring for 1.5-acre wetland to mitigate impacts of unavoidable road construction and stream crossings.
- 1.0-Acre Wetland Mitigation Project, Sumpter Township, Michigan. Project Manager. Completed wetland planning, site selection, local and state permitting, design, construction documents, construction inspection, and monitoring for a 1.0-acre wetland to mitigate impacts of unavoidable road construction.
- Township Mitigation Project, Confidential Client, Oakland County, Michigan. Project Wetland Specialist. Conducted wetland delineations, environmental planning, co-designer, permitting and monitoring for the project. The project involved a drainage study, storm water plan, and provided detention and a pond system. The ponds were designed as wet ponds with various zones including deep pool areas where the storm water initially was directed. Pollutant removal was designed through removing sedimentation of suspended solids, adsorption of nutrients, uptake of nutrients by algae and rooted plants, and biological oxidation of organic materials.
- Compressor Station Project, West Virginia. Project Coordinator. Responsibilities included providing a Pre-Construction Stream Delineation Report. Coordinated impact assessment and restoration sites.
- Pre-Construction Stream Delineation Report, (Well Pad), West Virginia. Project Coordinator for Impact Assessment and Restoration sites.
- Pre-Construction Stream Delineation Report, (Pre-Construction Pond), West Virginia. Project Coordinator for Impact Assessment and Restoration sites.
- Pre-Construction Stream Delineation Report, (Well Pad), West Virginia. Project Coordinator for Impact Assessment and Restoration sites.
- Lake, Shoreline, and Wetland Assessment Project, Michigan. Project Manager. Responsible for preparing the assessment of lakes, wetlands, and shoreline. Evaluated natural features and integrated into a conceptual site plan and Michigan Department of Environmental Quality (MDEQ) permit application for seawall and dock permit. Presented plan at MDEQ public hearing and successfully obtained the permit. Initiated and coordinated submission of materials on behalf of client for inclusion in Michigan Clean Marina Program.
- Wetlands and Woodlands Inventory Project, Confidential Recycling Corporation, Michigan. Identified natural features for the project. Assisted in the preparation of a site plan, coordinated the site plan with township planning staff and MDEQ Wetland Identification Program (WIP) for the client. Design of the site plan incorporated the protection of wetlands that were not regulated as well as a viewing room for employees and the visiting public for field trips to showcase the recycling facility and the protected natural features on site.
- Wetlands Ordinance Management Project, Michigan. Project Director. Managed the wetland ordinance for the city. Conducted wetland ordinance review, site plan review, wetland verification review, Planning Commission presentations, municipal and private client interface, ordinance violation review, restoration and court testimony, bond and easement reviews. Management included coordinating with stakeholders, and City engineering, planning and building staff. Presented findings to Planning Commission and City Council on regular basis.
- Wetlands Ordinance Management Project, Michigan. Project Director. Managed the wetland ordinance for the Township. Conducted wetland ordinance review, site plan review, wetland verification review, Planning Commission presentations, municipal and private client interface, ordinance violation review, restoration,

bond and easement reviews. Management included coordination with stakeholders as well as township engineering, planning and building staff. Presented findings to the Planning Commission.

- Wetlands Ordinance Management Project, Michigan. Project Wetland Specialist. Managed the wetland ordinance for the township. Conducted wetland ordinance review, site plan review, wetland verification review, Planning Commission presentations, municipal and private client interface, ordinance violation review, restoration and easement reviews. Management included coordination with stakeholders as well as Township engineering, planning and building staff. Presented findings to the Planning Commission and Township Wetlands Board.
- Stream and Wetland Resource Assessment of a Commercial/Industrial Development, Michigan, Confidential Client. Project Manager. The project involved a conceptual site plan and MDEQ permit application, which incorporated an evaluation of natural features for a proposed stream section re-alignment. Ms. Kay secured the MDEQ and USACE permits, as well as design of the stream re-alignment and monitoring. In addition, field investigations included vegetation sampling (for floristic quality index assessment), photo documentation of wildlife and alternatives analysis. A successful native plant relocation was performed as part of the stream restoration activities.
- National Wetland Quality Assessment Project. Field Lead. Collected and recorded ecological field data, utilizing Ecological Integrity Assessment methodology. Provided input to the ongoing revisions for the Ecological Integrity Assessment manual for the U.S. Environmental Protection Agency (USEPA). Performed vegetation plot sampling, habitat data collection, plant identification, specimen collection, habitat type interpretation, soil inspection, natural community map interpretation and data entry. Field work was performed throughout the southern two-thirds of Michigan's Lower Peninsula. Identified RTE species throughout the sampling season.
- State of Michigan Wetland Assessment Program. Conducted wetland determination, wetland delineation, tree inventory and prepared the wetland application materials. Facilitated wetland application and obtained a wetland permit for private client. The site plan incorporated green technologies to minimize disturbance to isolated wetland.
- Evaluated Lake/wetland/upland interface. Produced a report for neighborhood homeowners association and for inclusion in submittal of court documents.
- Annual monitoring of various wetland mitigation sites in Southeastern Michigan, for Multiple Clients. Project Manager. Task included monitoring of forested, shrub-scrub, open water and emergent systems; wetland ordinance review; site plan review; Planning Commission presentations; municipal and private client interface; restoration and mitigation designs; court testimony; and bond and easement reviews. Work included report documentation and coordination to meet MDEQ permit requirements.
- Pipeline Project, Pennsylvania. Coordinated RTE species consultations, as well as led the habitat assessments and presence/absence surveys for Pennsylvania Department of Natural Resources (PADCNR) species of special concern for Lobed Spleenwort (*Asplenium pinnatifidum*), Blue False-Indigo (*Baptisia australis*), Declined Trillium (*Trillium flexipes*), Wild Kidney Bean (*Phaseolus polystachios*) and Beard-tongue (*Penstemon laevigatus*).
- Pipeline Projects, Pennsylvania. Environmental permitting, field work, and cultural resources for pipelines in the region. Surveyed for the following RTE plant species: bog rosemary (*Andromeda polifolia*); slender sedge (*Carex lasiocarpa*); Robbin's spikerush (*Eleocharis robbinsii*); soft leaved sedge (*Carex disperma*); water bulrush (*Schoenoplectus subterminalis*); horned bladderwort (*Utricularia cornuta*); and flat leaved bladderwort (*Utricularia intermedia*).
- Pipeline Project, Pennsylvania. Presence/Absence Botanical Survey for six RTE Plant Species and Habitat Assessment for four Communities of Concern in Pennsylvania.
- Invasive species monitoring for a natural gas pipeline ROW within State Forests, Pennsylvania.

Certifications / Training

Professional Wetland Scientist (PWS) #2092
USACE Wetland Delineation Training, #409
Pennsylvania Wild Plant Management Permit
Soil Erosion & Sedimentation Certification, MDNR
Evaluating Wildlife Functions of Wetlands and Woodlands, Michigan State University
Soil Remediation, Hazardous Materials & Environmental Training
Groundwater Hydrology Applied to Environmental Problems, Environmental Management Conference
Groundwater Plume Management in Groundwater Remediation, Hazardous Materials Training
Wetland Horticulture, Environmental Concern, Inc.
The Purple Loosestrife Project, Michigan State University
Outdoor Education, Leopold Education Project
Sustainable Approaches to the Conventional Landscape, Michigan State University
Growing Smart Workshop, Michigan Environmental Council
ESA Training, Environmental Training Services
Midwest Green Building Conference, River Raisin Institute
Wetland Delineation in Michigan, University of Michigan Matthaei Botanical Gardens
Helping Communities Protect Water Resources, Michigan State University
Planning Risk Management, Michigan State University
Wind Energy Siting and Policy Issues, Michigan State University
Grasses of Wetland Habitats, University of Michigan Matthaei Botanical Gardens
Workshop on Pennsylvania State Programmatic General Permit – 4 application requirements, Pittsburgh
USACE
Advanced Project Management Training, GAI Consultants

Publications / Presentations

2017 "Autumn Ecology," Venture Outdoors Environmental Session, South Park, Pittsburgh, PA, September 24, 2017.

2016 "Winter Tree Identification," Venture Outdoors Environmental Session, Frick Park, Pittsburgh, PA, January 11, 2016.

2014 "Tree Identification," Venture Outdoors Environmental Session, Frick Park, Pittsburgh, PA, June 14, 2014.

2012 "Identification of Grasses of Wetland Habitats," Northeast Energy and Environment staff training for GAI Consultants, Inc., May, 7, 2012.

2012 "Environmental Regulations, Studies, and Permitting, (Threatened and Endangered Species Consultation portion)," Appalachian Basin Projects for The Williams Companies, Inc., Pittsburgh, PA, January 17, 2012.

- 2011. "Environmental Regulations, Studies, and Permitting (Threatened and Endangered Species Consultation portion)," Appalachian Basin Projects for The Williams Companies, Inc., Tunkhannock, PA, December 7, 2011.
- 2009 Presenter, "Native Plant Identification" (workshop & Training), Saline High School Agriscience Class, Pittsfield Township, MI, October 7, 2009.
- 2009 Presenter, "Huron River Ecology" (workshop & Field trip), Sponsored by the Stewardship Network, Gallup Park, Ann Arbor, MI, July 11, 2009.
- 2009 Presenter; York Township Environmental Resources, "Saving Green While Going Green Workshop," York Township, MI, April 18, 2009.
- 2008 Presenter, "Wetland Preservation and Storm Water Detention Pond Enhancement" (Field Trip), Saline High School Agriscience Class, Pittsfield Township, MI, March-October, 2008.
- 2008 Presenter, "Comparative Study of Local & State Wetland Protection Efforts for Two Southeastern MI Communities," Wisconsin Wetlands Association 13th Annual Conference, Oconomowoc, WI, January 31-February 1, 2008.
- 2008 Presenter, "Wetlands and Biodiversity," York Township Earth Day Event, York Township, MI, April 19, 2008.
- 2008 Presenter, "Michigan's Natural Features and the Importance of Land Preservation through Parks and Agricultural Lands," York Township Earth Day Event, York Township, MI, April 19, 2008.
- 2006 Presenter, "York Township Wetlands, Overview & Management Options," York Township Planning Commission, York Township, MI, August 28, 2006.
- 2004 Presenter, "Wetlands, Forests and Meadow Habitats" (Field Trip), Crosswinds Marsh Wetlands Interpretive Preserve, Sumpter Township, MI, September 28, 2004.
- 1999 Presenter, "Wetland Exploration" (Field Trip), Crosswinds Marsh Wetlands Interpretive Preserve, Sumpter Township, MI, May 11, 1999.



Riley Williams, MS

Environmental Specialist III

Education

MS, Environmental Science and Management (Conservation Track), 2022, Duquesne University

BS, Biological Sciences, 2020, Duquesne University

Skills

Riparian Assessment

Fish Identification

Invasive Species Identification

Buffer Planting

Water Quality Monitoring

YSI Multimeter and Turbidimeter

GIS/Mapping

Certifications/Training

Client First Training

Industry Experience

GAI Consultants, 2022-Present

Allegheny County Conservation District, 2021-2022 (Internship)

University of Pittsburgh, 2018-2022

Duquesne University, 2018-2022

Professional Summary

Ms. Williams specializes in aquatic and environmental assessment projects. She provides project support by performing ecological monitoring and wetland delineations. As a Graduate Student at Duquesne University, Ms. Williams taught general biology laboratory courses. Her Master's Thesis Project included performing research for the Audubon Society of Western Pennsylvania and updating their Conservation Plan for the Little Buffalo Creek Watershed. This Watershed consists of numerous streams, including Sarver Run, which is being impacted by an unknown source. Her research included both field work (fish surveys, on-site water quality measurement, and laboratory work).

Professional Experience

- 138kV Transmission Line Tap Engineering Project, West Virginia. Senior Environmental Specialist. Ms. Williams is providing ecological monitoring and wetland delineations for this project. GAI is providing environmental and cultural resources consulting services for a new approximately 2.5-mile, 138kV transmission line between the proposed substation and the existing 138kV line. GAI's scope includes Wetland Delineation and Stream Identification; Archaeological Survey and Reporting; Architectural Survey and Reporting; Threatened and Endangered Species Coordination and Bat Studies; Waterbody Crossing Permits; and Meetings and Project Coordination.
- Substation Project, Virginia. Senior Environmental Specialist. Ms. Williams is providing ecological monitoring and wetland delineations for this project. GAI is providing environmental and cultural resources consulting services to evaluate the project and assist with permitting and environmental clearances. GAI's scope includes Wetland Delineation and Stream Identification; Archaeological Survey and Reporting; Architectural Survey and Reporting; Bat Studies; Waterbody Crossing Permits; and Meetings and Project Coordination.
- Conservation Intern, Allegheny County Conservation District, Allegheny County, Pennsylvania. Assisted with riparian buffer plantings, invasive species management, public outreach and social media, grant applications, and monthly water quality monitoring. Responsible for generating maps for both public and private use.
- Laboratory Aide. University of Pittsburgh, Med-Cell Biology Laboratory. Responsible for purchasing/ordering items, making media/solutions, keeping up with inventory, cleaning, autoclaving, maintaining liquid nitrogen tanks, organizing, disposing of chemical/hazardous waste, and maintaining incubators.

- Graduate Researcher, Duquesne University. Gathered data for the Audubon Society of Western Pennsylvania with the goal of updating their 10 Year Conservation Plan for the Little Buffalo Creek Watershed system, which is an important bird area. The Little Buffalo Creek system consists of numerous streams, including Sarver Run, which is currently impacted by an unknown source. This research assistantship, which also acted as Ms. Riley's Master Thesis Project, required both field work (Fish and macroinvertebrate surveys, on-site water quality measurement) and laboratory work (fish identification, water quality analysis, and polymerase chain reaction).
- Teaching Assistant, Duquesne University. Instructed four general biology laboratory sections. Presented laboratory activities to students and assisted with laboratory experimentation.
- Assistant Researcher, Duquesne University Biology Department. Studied the overall stream health of Little Buffalo Creek. Fish, macro invertebrate, and water samples were collected to determine the overall health of the stream and update the current Buffalo Creek Watershed Conservation Plan. Assisted a fellow student with research in a biology lab that focuses on genetics of natural populations, evolution, and the molecular ecology of fishes. Specifically, working towards a less intrusive method of extracting fish DNA.
- Laboratory Aide. Duquesne University Biology Department. Worked as a Laboratory Aide in two different biology labs. Responsibilities included cleaning, making media, autoclaving, and organizing equipment.



John Woloschuk, MS

Environmental Specialist III

Education

MS, Biological Sciences, 2019, Bowling Green State University

BS, Biology, 2017, Saint Francis University

Skills

NEPA Documentation

Air Permitting

Water Quality Analysis

NPDES Permitting

Stormwater Management

Roadway Design

Program Management

Design and Inspection of Construction Projects

Industry Experience

GAI Consultants, 2022-Present

Resource Environmental Solutions, 2021-2022

Pennsylvania State University, 2021

Bowling Green State University, 2017-2019

Saint Francis University Biology Department, 2015-2017

Professional Summary

Mr. Woloschuk is a Senior Environmental Specialist with GAI specializing in interpreting and applying governmental regulations and procedures relative to project and facility permitting, National Environmental Policy Act (NEPA) documentation preparation, water quality analysis, air permitting, Erosion & Sediment Control (E&SC) design, National Pollutant Discharge Elimination System (NPDES) permitting, stormwater management, roadway design, program management, and design and inspection of construction projects.

Professional Experience

- Everts Drive Fiber Expansion Project, FirstEnergy Corporation (FirstEnergy), Bradford County, Pennsylvania. Senior Environmental Specialist.
- Cascade (Cedar Street) 69kV Transmission Line Rebuild Project, FirstEnergy, New Castle, Lawrence County, Pennsylvania. Senior Environmental Specialist. GAI will assist First Energy with permitting for a rebuild of approximately 19 miles of existing transmission line.
- Seward-Glory-Piney 230kV Transmission Line Project, FirstEnergy, Various Locations, Pennsylvania. Senior Environmental Specialist. FirstEnergy is proposing to rebuild an existing 115kV transmission line to a 230kV transmission line for approximately 65.0 miles in length in Indiana, Westmoreland, Armstrong, Jefferson, and Clarion Counties, Pennsylvania. GAI will provide a full siting study, Public Utility Commission (PUC) application, environmental permitting including Rare, Threatened, and Endangered (RTE) species consultation; stream & wetland survey; cultural consultation and Phase I survey; access road identification; development of ortho-photo drawings; and real-estate property tax record search. Task work orders under this contract include:
 - Erie South - Piney 230kV Overlay Project, Various Locations, Pennsylvania.
 - Seward-Glory-Piney 230kV Transmission Line Project, Various Locations, Pennsylvania.
- Post-Construction Project, Confidential Client, Pennsylvania. Senior Environmental Specialist.
- Wetland Mitigation and Monitoring Plan, FirstEnergy, Smethport, McKean County, Pennsylvania. Senior Environmental Specialist. FirstEnergy is proposing to construct a new 230kV transmission

line for approximately 13 miles. GAI will develop a wetland enhancement mitigation and monitoring plan in order to offset permanent wetland impacts as a result of the proposed project to meet state and federal requirements.

EXHIBIT 12

1. PROJECT INFORMATION

Project Name: **Seward-Johnstown 230kV Transmission Line Rebuild**

Date of Review: **7/5/2024 10:34:46 AM**

Project Category: **Energy Storage, Production, and Transfer, Energy Transfer, Power/electric line - service, replace existing above/under-ground line**

Project Area: **225.72 acres**

County(s): **Cambria; Indiana; Westmoreland**

Township/Municipality(s): **EAST WHEATFIELD TOWNSHIP; JACKSON TOWNSHIP; ST CLAIR TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **NEW FLORENCE; VINTONDALE**

Watersheds HUC 8: **Conemaugh**

Watersheds HUC 12: **Baldwin Creek-Conemaugh River; Hinckston Run-Conemaugh River**

Decimal Degrees: **40.413141, -78.973819**

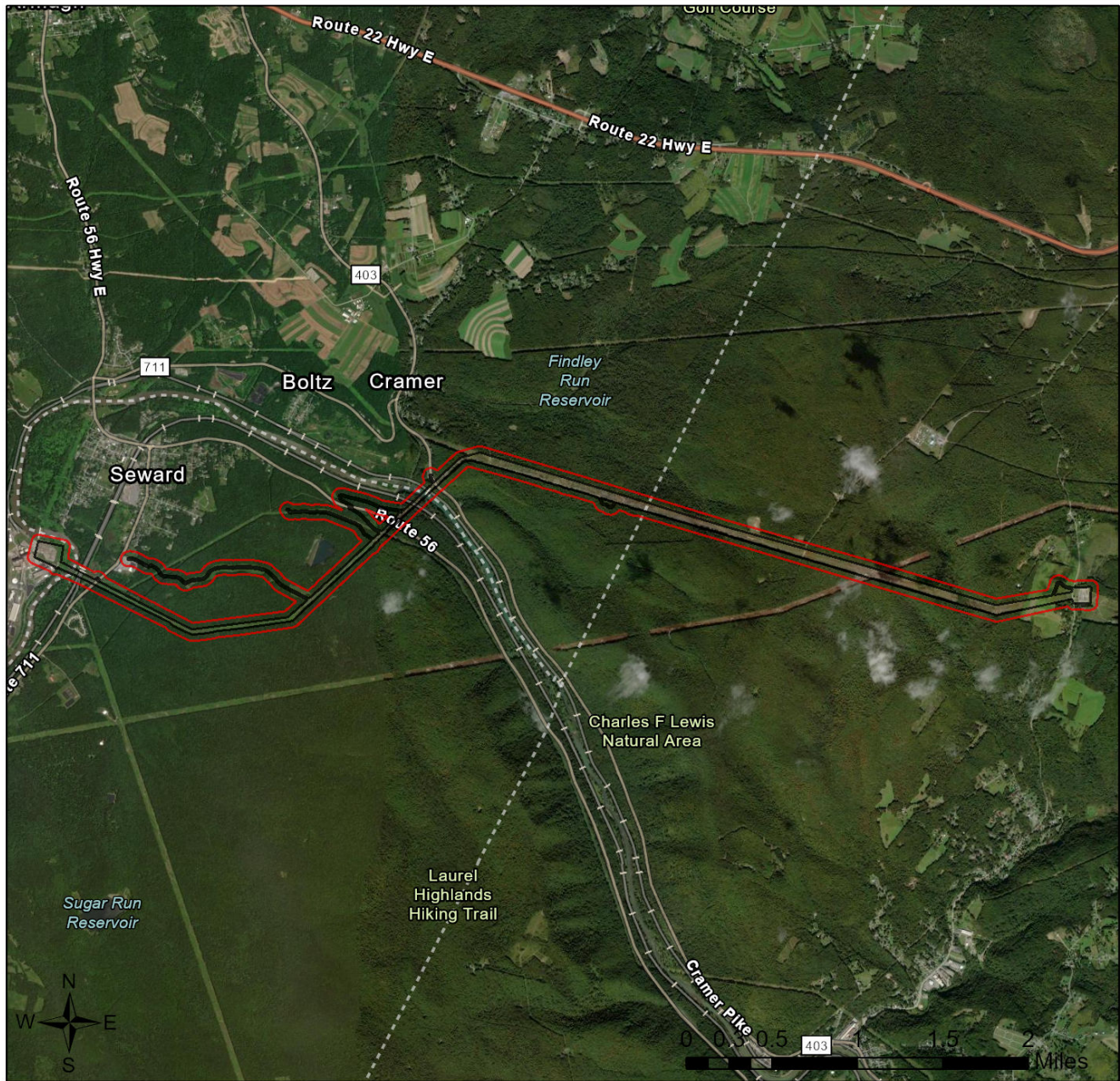
Degrees Minutes Seconds: **40° 24' 47.3077" N, 78° 58' 25.7496" W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	Avoidance Measure	See Agency Response

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Seward-Johnstown 230kV Transmission Line Rebuild

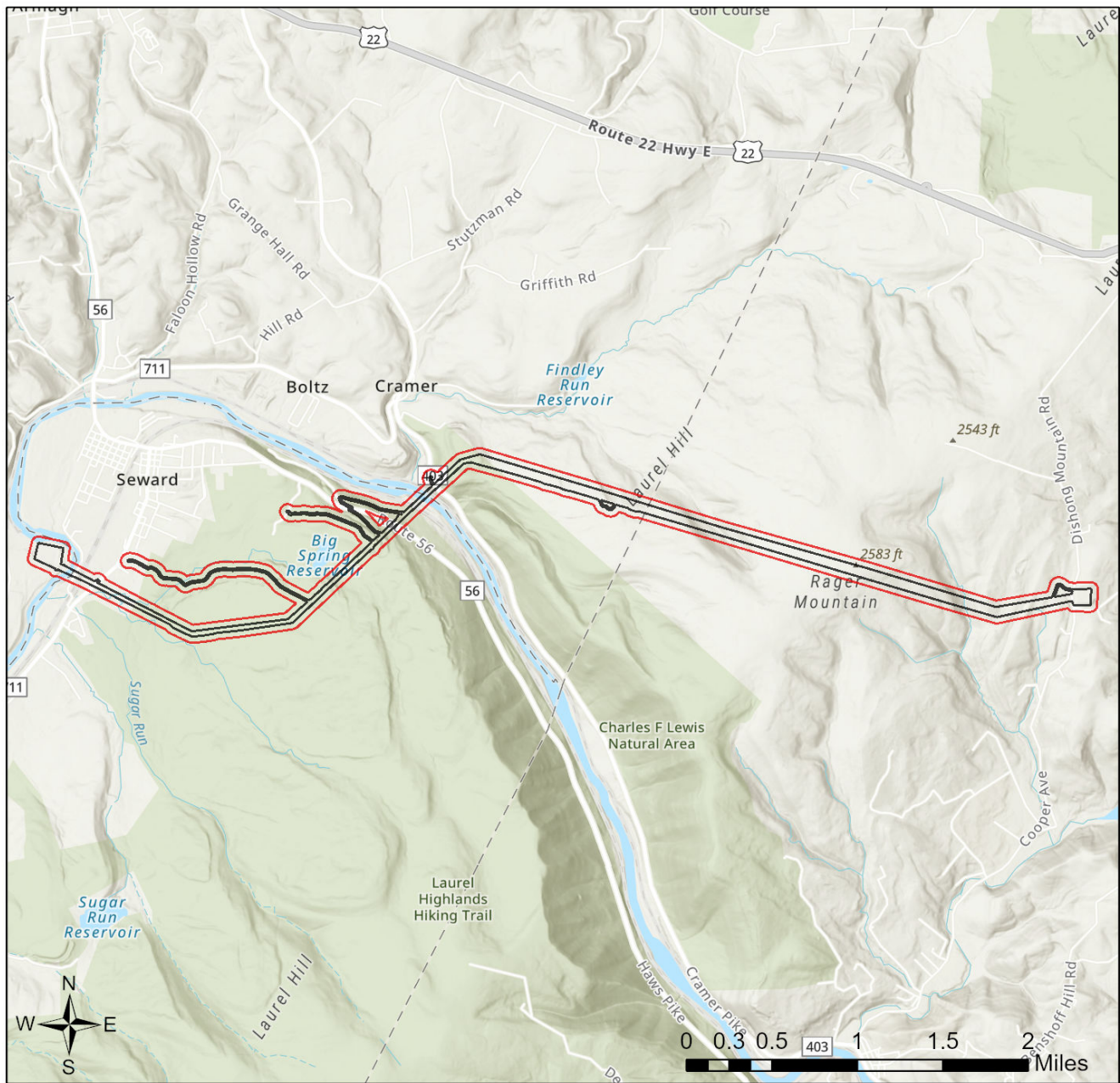




-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Seward-Johnstown 230kV Transmission Line Rebuild



-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

RESPONSE TO QUESTION(S) ASKED

Q1: Which of the following accurately describes the habitats on and within 650 feet of the project area? "Project area" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.).

Your answer is: The project area has not been field investigated to identify and delineate large rocks or boulders, talus or scree, rock outcrops, boulder fields, quarries, caves and associated passages, cliffs, abandoned highwalls from previous surface mining, and abandoned deep mines - OR - it is currently unknown if the project will affect any of these habitats.

Q2: Is tree removal, tree cutting or forest clearing necessary to implement all aspects of this project?

Your answer is: Yes

Q3: How many acres of woodland, forest, forested fencerows and trees will be cut, cleared, removed, disturbed or flooded (inundated) as a result of carrying out all aspects or phases of this project? [Round acreages UP to the nearest acre (e.g., 0.2 acres = 1 acre).]

Your answer is: 1 to 10 acres

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 jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PGC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Neotoma magister	Allegheny Woodrat	Threatened

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:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Sensitive Species**		Special Concern Species*

U.S. Fish and Wildlife Service

RESPONSE:

Avoidance Measure: The proposed project is located in the vicinity of northern long-eared bat spring staging/fall swarming habitat. To ensure take is not reasonably certain to occur, do not conduct tree removal from May 15 to August 15. The U.S. Fish and Wildlife Service determined take is not reasonably certain to occur from tree removal if activities are avoided during the pup season (i.e., the range of time when females are close to giving birth (i.e., two weeks prior to birth) and have non-volant (i.e., unable to fly) young). For more information, see the Interim Voluntary Guidance for the Northern Long-Eared Bat: Forest Habitat Modification, available here:

<https://www.fws.gov/library/collections/interim-habitat-modification-guidance>.

As the project proponent or applicant, I certify that I will implement the above Avoidance Measure:

 (Signature)

SPECIAL NOTE: If you agree to implement the above Avoidance Measure and if applicable, any Information Requests, no further coordination with this agency regarding threatened and endangered species and/or special concern species and resources is required. If you are not able to comply with the Avoidance Measures, you are required to coordinate with this agency - please send project information to this agency for review (see "What to Send" section).

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).

*If information was requested by USFWS, applicants must email, or mail, project information to IR1_ESPenn@fws.gov to initiate a review. USFWS will not accept uploaded project materials.

Check-list of Minimum Materials to be submitted:

Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

SIGNED copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

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

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@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 Game Commission

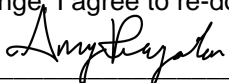
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Amy Ruszala
Company/Business Name: FirstEnergy
Address: 341 White Pond
City, State, Zip: Akron, OH 44320
Phone: (330) 315-6936 Fax: (330) 714-8155
Email: aruszala@firstenergycorp.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

07/09/2024

date



PENNSYLVANIA GAME COMMISSION

BUREAU OF WILDLIFE MANAGEMENT

2001 ELMERTON AVENUE HARRISBURG, PA 17110-9797 | (717) 787-5529

August 26, 2024

PGC ID Number: 202407050201

Lars Peterson
GAI Consultants
385 East Waterfront Drive
Homestead, PA 15120
l.peterson@gaiconsultants.com

PNDI Receipt File: *project_receipt_seward_glory_piney_erie_s_769901_FINAL_1.pdf*
Re: *First Energy - Seward-Johnstown 230kV Transmission Line Rebuild Project*
East Wheatfield, Jackson and St. Clair Townships; Cambria, Indiana and Westmoreland Counties, Pennsylvania

Dear Lars Peterson,

Thank you for submitting Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt *project_receipt_seward_glory_piney_erie_s_769901_FINAL_1.pdf*. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated – PNDI species

PNDI records indicate species or resources of concern are located within the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, the PGC has determined that *no impact is likely*. As long as timber harvesting practices do not directly disturb potential habitat – steep rocky/talus slopes, boulder fields, or caves in a forest interior matrix the Allegheny Woodrat (*Neotoma magister*), a threatened species, should not withstand impacts from this project's activities. If trees do need to be felled, the PGC asks that they be left where they fall (or close to where they fall) to provide cover the local Allegheny Woodrat population.

In addition, a portion of the proposed project is located on **State Game Lands No. 42**, within the PGC's Southwest region. Please contact Mr. Matthew Lucas, Land Management Supervisor at 724-238-9523 to discuss the project activities and coordinate obtaining the necessary approvals and coordinate obtaining the necessary approvals if your project will impact State Game Lands. It is recommended that you coordinate with Game Commission Staff early in your project planning process.

This response represents the most up-to-date summary of the PNDI data files and is valid for two (2) years from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the

proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for two additional years.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Please be sure to include the above-referenced PGC ID Number on any future correspondence with the PGC regarding this project.

Sincerely,



Sue Guers
Environmental Review Lead
Bureau of Wildlife Management
Phone: 717-787-4250, Extension 73412
Fax: 717-787-6957
E-mail: suguers@pa.gov

A PNHP Partner



SLG/slg

H:\OIL&GAS PNDI REVIEWS\Energy PNDI\Transmission\First Energy

cc: Schnupp
Lovallo
Farabaugh
Lucas
Trusso
Havens



July 18, 2024

IN REPLY REFER TO

SIR# 60062

GAI Consultants

Lars Peterson

385 E. Waterfront Drive

Homestead, Pennsylvania 15120

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 781762_1
Seward-Johnstown 230kV Transmission Line Rebuild
Jackson Township: CAMBRIA County - East Wheatfield Township: INDIANA County - St. Clair
Township: WESTMORELAND County**

Dear Lars Peterson:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search “potential conflict” or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish and Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish and Boat Code (Chapter 75), or the Wildlife Code.

Timber Rattlesnake (*Crotalus horridus*, Species of Special Concern)

Timber Rattlesnakes occur in relatively high elevation forested, mountainous regions of the Commonwealth. They prefer forested areas to forage for small mammals (e.g., mice and chipmunks) and southerly-facing slopes for hibernating and other thermoregulatory activities. The Timber Rattlesnake is threatened by habitat loss/alteration, wanton killing, and poaching. In Pennsylvania, Timber Rattlesnakes are a protected species. Special (venomous snake) permits are needed to hunt individual rattlesnakes, and only legal sized males (>42 inches) can be taken during a restricted hunting season. However, communal overwintering and gestation sites are considered critical habitats for the species and are therefore protected through the environmental review process. Also, due to the species being venomous, projects that come in close proximity to these critical habitats will likely encounter the species and potentially pose health and human safety concerns to project workers. Therefore, in these consultations, the PFBC aims to avoid and minimize impacts to the species and address health and human safety issues.

Given the proximity of the project to known critical Timber Rattlesnake habitat, we recommend that a Timber Rattlesnake habitat assessment be conducted in the project area by a qualified Timber Rattlesnake surveyor. We have included a list of qualified surveyors for your convenience. Upon completion of the habitat survey, the qualified rattlesnake biologist is to submit a report to this office for review and comment. The habitat survey report should include color photographs of the project area

(keyed to a site map or diagram) and a description of habitats occurring within the immediate area to be developed (including access roads), as well as the surrounding area. Potential Timber Rattlesnake critical habitat (denning/gestating areas) should be photographed and mapped accordingly. In addition, the report should also include detailed project plans and maps with a description of the proposed work (including access roads), project impacts and alternatives. Pending the review of this information, a survey targeting the presence of the Timber Rattlesnake in the project area and/or other project modifications may be requested.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Josh Brown at 814-359-5129 or joshbrown@pa.gov and refer to the SIR # 60062. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive, flowing style.

Christopher A. Urban, Chief
Natural Diversity Section

CAU/JRB/dn

Enclosure



November 26, 2024

IN REPLY REFER TO

SIR# 60062

GAI Consultants

Lars Peterson

385 E. Waterfront Drive

Homestead, Pennsylvania 15120

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 781762_1
Seward-Johnstown 230kV Transmission Line Rebuild
Jackson Township: CAMBRIA County - East Wheatfield Township: INDIANA County - St. Clair
Township: WESTMORELAND County**

Dear Lars Peterson:

In recent correspondence with the Commission, due to nearby known occurrences of the Timber Rattlesnake (*Crotalus horridus*) within the vicinity of the proposed project, to further determine potential adverse impacts from the proposed project to the species of concern, a habitat evaluation was requested by the Commission (*SIR Letter dated July 18, 2024*). Subsequently, Dr. Glen Johnson, a Pennsylvania Qualified/Recognized and properly permitted Timber Rattlesnake Biologist, conducted a habitat assessment and documented several potential denning/overwintering habitats as well as gestation/basking habitats within the project area.

According to Dr. Johnson's report (*Investigation and Evaluation of Potential Timber Rattlesnake Habitat at the proposed Seward-Johnstown 230kV Transmission Line Rebuild, Jackson Township: CAMBRIA County - East Wheatfield Township: INDIANA County - St. Clair Township: WESTMORELAND County Pennsylvania, SIR # 60062, dated September 27, 2024*), ten areas of potential Timber Rattlesnake habitat were evaluated. All ten of these sites provide some elements of Timber Rattlesnake habitat. PH2 and PH7 do not contain critical habitat for Timber Rattlesnakes. PH1, PH3-PH6, and PH8-PH10 contain potential gestation habitat; PH6, PH8, and PH10 also contain potential Timber Rattlesnake denning/overwintering habitat. Note that denning/overwintering habitat cannot be replaced.

Timber Rattlesnakes occur in relatively high elevation forested, mountainous regions of the Commonwealth. They prefer forested areas to forage for small mammals (e.g., mice and chipmunks) and southerly-facing slopes for hibernating and other thermoregulatory activities. The Timber Rattlesnake is threatened by habitat loss/alteration, wanton killing, and poaching. In Pennsylvania, Timber Rattlesnakes are a protected species. Special (venomous snake) permits are needed to hunt individual rattlesnakes, and only legal sized males (>42 inches) can be taken during a restricted hunting season. However, communal overwintering and gestation sites are considered critical habitats for the species and are therefore protected through the environmental review process. Also, due to the species being venomous, projects that come in close proximity to these critical habitats will likely encounter the species and potentially pose health and human safety concerns to project workers. Therefore, in these

consultations, the PFBC aims to avoid and minimize impacts to the species and address health and human safety issues.

For Potential Overwintering/denning Habitat Areas (PH6, PH8, PH10):

Based on the information provided, the proposed project may impact potential denning habitat for the Timber Rattlesnake. In order to avoid direct impacts to these overwintering habitats, it is recommended that the **limits of disturbance of be moved/relocated 300 feet away from the mapped overwintering areas**. If this can be done, no further avoidance is needed, besides following best management practices during project implementation.

However, if relocation cannot be done, we request that a **presence/absence survey** be conducted in the project area. This survey should be completed by a qualified Timber Rattlesnake biologist (list enclosed) in accordance with the Pennsylvania Fish & Boat Commission's enclosed survey guidelines. Upon the completion of the survey, the qualified biologist is to submit a report to this office for review and comment.

Workers responsible for implementing this project should be advised that Timber Rattlesnakes may be encountered and that avoidance is the best means of minimizing risks to personal safety. It is suggested a procedure be implemented for Timber Rattlesnake encounters and workers are to be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of Timber Rattlesnakes is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.

For Potential Gestation Areas PH1, PH3-PH5, PH9:

If work within 300 feet of these areas is conducted during the dormant season of the Timber Rattlesnake, then I do not anticipate any adverse impacts to this species of special concern. **However, if work is to be conducted from April 15-October 15, then I recommend that you take the following precautions to safeguard workers and rattlesnakes:**

1. A PFBC approved Timber Rattlesnake biologist who has the proper permits (Scientific Collector's Permit), and the proper skills to handle this venomous species will be on-site prior to and during construction.

2. The PFBC approved Timber Rattlesnake biologist will be on-site prior to and during construction activities, during the above time frame, to inspect and clear the area (including staging areas and access roads) of Timber Rattlesnakes and to capture and remove any rattlesnakes that may interfere with work activities.

3. Timber Rattlesnakes observed on-site are to be measured, sexed, and the habitat characterized where the snake was found. All captured snakes should be released within close proximity (under 100 meters) of the capture site if possible. Rattlesnake captures and relocations are to be documented by photographs, habitat descriptions, in addition to being mapped and labeled accordingly. The biologist is to submit a report to this office (Natural Diversity Section) following the completion of the project documenting all of the activity and herpetofauna encountered.

4. If erosion control fabric is to be used at this site, materials that are known to reduce the risk of snake entrapment should be selected, such as loosely woven natural fiber ECM. Use of monofilament/plastic netting should be avoided.

5. Workers responsible for implementing this project should be advised that Timber Rattlesnakes may be encountered and that avoidance is the best means of minimizing risks to personal safety. It is suggested a procedure be implemented for Timber Rattlesnake encounters and workers are to be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of Timber Rattlesnakes is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.

6. During the construction period, PFBC personnel may communicate with the on-site biologist and may visit the site area periodically to view the progression of the project and answer any questions or concerns that may arise. For safety purposes, PFBC personnel will register with the on-site manager upon entering the construction area.

If impacts to gestation/basking habitat are unavoidable, then we recommend creation of suitable habitat (see attached) under the direction of a qualified surveyor.

Enclosed is the list of PFBC approved rattlesnake biologists for your convenience. It is not an exhaustive list of qualified rattlesnake biologists in Pennsylvania as there may be qualified surveyors who have not asked to be placed on this list. It is not mandatory that you use someone on this list.

The qualified/recognized herpetologist is to be on-site during all project activity within 300 feet of any areas identified as denning or gestation habitat. If any species of concern are found during the clearance survey, the herpetologist is to move the animal no farther than necessary out of the immediate project area (no farther than 0.25 miles away within appropriate habitat in the same watershed). Upon completion of the survey work, the herpetologist is to forward a report showing the surveyor's results to this office for our review and comment. Reports should include photographs and maps of appropriate suitable habitat. Threatened and endangered species observed in the survey should be photographed, aged, sexed, measured as to their size, and areas they were observed/captured should be mapped accordingly. The surveyor should also report other herpetofauna seen while conducting the surveys.

PH2 and PH7:

These areas do not contain critical habitat for Timber Rattlesnake and no restrictions or oversight are necessary within 300 feet of these areas (see below).

In addition to the habitat areas identified in the report, many other project areas could be used as foraging habitat for Timber Rattlesnakes and this warrants some concern about rattlesnake-human conflicts. Although the nature of the Timber Rattlesnake is rather docile, it can be dangerous if cornered or handled. Therefore, the workers should be mindful of the presence of the snakes in the area. Rattlesnakes are attracted to open, rocky, log-strewn areas for basking and forested areas with thick deciduous leaf litter that tend to support high populations of rodents. We recommend that the workers responsible for implementing this project be advised that Timber Rattlesnakes may be encountered and that avoidance is the best means of minimizing risks to personal safety. These workers should also be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of

Timber Rattlesnakes without a proper permit is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6. If any Timber Rattlesnakes are observed on-site, please notify this office.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Josh Brown at 814-359-5129 or joshubrown@pa.gov and refer to the SIR # 60062. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive style with a large, stylized initial "C".

Christopher A. Urban, Chief
Natural Diversity Section

CAU/JRB/dn

Enclosure



July 2, 2025

IN REPLY REFER TO

SIR# 60062

GAI Consultants

Lars Peterson

385 E. Waterfront Drive

Homestead, Pennsylvania 15120

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 781762_1
Seward-Johnstown 230kV Transmission Line Rebuild
Jackson Township: CAMBRIA County - East Wheatfield Township: INDIANA County - St. Clair
Township: WESTMORELAND County**

Dear Lars Peterson:

In prior correspondence with the Commission, due to nearby known occurrences of the Timber Rattlesnake (*Crotalus horridus*) within the vicinity of the proposed project, to further determine potential adverse impacts from the proposed project to the species of concern, a habitat evaluation was requested by the Commission (*SIR Letter dated July 18, 2024*). Subsequently, Dr. Glen Johnson, a Pennsylvania Qualified/Recognized and properly permitted Timber Rattlesnake Biologist, conducted a habitat assessment and documented several potential denning/overwintering habitats as well as gestation/basking habitats within the project area.

According to Dr. Johnson's report (*Investigation and Evaluation of Potential Timber Rattlesnake Habitat at the proposed Seward-Johnstown 230kV Transmission Line Rebuild, Jackson Township: CAMBRIA County - East Wheatfield Township: INDIANA County - St. Clair Township: WESTMORELAND County Pennsylvania, SIR # 60062, dated September 27, 2024*), ten areas of potential Timber Rattlesnake habitat were evaluated. All ten of these sites provide some elements of Timber Rattlesnake habitat. PH2 and PH7 do not contain critical habitat for Timber Rattlesnakes. PH1, PH3-PH6, and PH8-PH10 contain potential gestation habitat; PH6, PH8, and PH10 also contain potential Timber Rattlesnake denning/overwintering habitat. Note that denning/overwintering habitat cannot be replaced.

Timber Rattlesnakes occur in relatively high elevation forested, mountainous regions of the Commonwealth. They prefer forested areas to forage for small mammals (e.g., mice and chipmunks) and southerly-facing slopes for hibernating and other thermoregulatory activities. The Timber Rattlesnake is threatened by habitat loss/alteration, wanton killing, and poaching. In Pennsylvania, Timber Rattlesnakes are a protected species. Special (venomous snake) permits are needed to hunt individual rattlesnakes, and only legal sized males (>42 inches) can be taken during a restricted hunting season. However, communal overwintering and gestation sites are considered critical habitats for the species and are therefore protected through the environmental review process. Also, due to the species being venomous, projects that come in close proximity to these critical habitats will likely encounter the species and potentially pose health and human safety concerns to project workers. Therefore, in these

consultations, the PFBC aims to avoid and minimize impacts to the species and address health and human safety issues.

Ensuing correspondence from our office (*SIR Letter dated November 26, 2024*) provided avoidance measures for potential gestation habitat and requested completion of a Species Occurrence survey for potential Timber Rattlesnake denning habitat, if the project Limits of Disturbance are proposed within 300 feet of the potential denning habitat.

As noted in your June 27, 2025 Letter, Stan Boder (permitted and qualified Timber Rattlesnake Surveyor) was contracted to perform a presence/absence survey for the potential denning habitat identified in Glenn Johnson's Habitat Assessment. According to Mr. Boder's report (*TIMBER RATTLESNAKE DENNING HABITAT PRESENCE/ABSENCE SURVEY REPORT, SEWARD - JOHNSTOWN 230KV TRANSMISSION LINE REBUILD PROJECT*, June 19, 2025, by EnviroScience, Inc.), PH-06, PH-08, and PH-10 (identified as CDH-01, CDH-02, CDH-03, respectively) were confirmed as overwintering/denning habitat. We therefore recommend the following:

Within 300 feet of Potential Overwintering/denning Habitat (PH6/CDH-01, PH8/CDH-02, PH10/CDH-03)

We are concerned about direct and indirect effects that the proposed project could have on the local population of Timber Rattlesnakes. We recommend that you take the following precautions to safeguard workers and rattlesnakes:

1. Work should be conducted between April 15 and October 15 to avoid impacts to overwintering snakes. A PFBC approved Timber Rattlesnake biologist who has the proper permits (Scientific Collector's Permit), and the proper skills to handle this venomous species will be on-site prior to and during construction.
2. The PFBC approved Timber Rattlesnake biologist will be on-site prior to and during construction activities, during the above time frame, to inspect and clear the area (including staging areas and access roads) of Timber Rattlesnakes and to capture and remove any rattlesnakes that may interfere with work activities.
3. Timber Rattlesnakes observed on-site are to be measured, sexed, and the habitat characterized where the snake was found. All captured snakes should be released within close proximity (under 100 meters) of the capture site if possible. Rattlesnake captures and relocations are to be documented by photographs, habitat descriptions, in addition to being mapped and labeled accordingly. The biologist is to submit a report to this office (Natural Diversity Section) following the completion of the project documenting all of the activity and herpetofauna encountered.
4. If erosion control fabric is to be used at this site, materials that are known to reduce the risk of snake entrapment should be selected, such as loosely woven natural fiber ECM. Use of monofilament/plastic netting should be avoided.
5. Workers responsible for implementing this project should be advised that Timber Rattlesnakes may be encountered and that avoidance is the best means of minimizing risks to personal safety. It is suggested a procedure be implemented for Timber Rattlesnake encounters and workers are to be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of Timber Rattlesnakes is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.

6. During the construction period, PFBC personnel may communicate with the on-site biologist and may visit the site area periodically to view the progression of the project and answer any questions or concerns that may arise. For safety purposes, PFBC personnel will register with the on-site manager upon entering the construction area.

For Potential Gestation Areas PH1, PH3-PH5, PH9:

If work within 300 feet of these areas is conducted during the dormant season of the Timber Rattlesnake, then I do not anticipate any adverse impacts to this species of special concern. **However, if work is to be conducted from April 15-October 15, then I recommend that you take the following precautions to safeguard workers and rattlesnakes:**

1. A PFBC approved Timber Rattlesnake biologist who has the proper permits (Scientific Collector's Permit), and the proper skills to handle this venomous species will be on-site prior to and during construction activities, during the above time frame, to inspect and clear the area (including staging areas and access roads) of Timber Rattlesnakes and to capture and remove any rattlesnakes that may interfere with work activities.

2. Timber Rattlesnakes observed on-site are to be measured, sexed, and the habitat characterized where the snake was found. All captured snakes should be released within close proximity (under 100 meters) of the capture site if possible. Rattlesnake captures and relocations are to be documented by photographs, habitat descriptions, in addition to being mapped and labeled accordingly. The biologist is to submit a report to this office (Natural Diversity Section) following the completion of the project documenting all of the activity and herpetofauna encountered.

3. If erosion control fabric is to be used at this site, materials that are known to reduce the risk of snake entrapment should be selected, such as loosely woven natural fiber ECM. Use of monofilament/plastic netting should be avoided.

4. Workers responsible for implementing this project should be advised that Timber Rattlesnakes may be encountered and that avoidance is the best means of minimizing risks to personal safety. It is suggested a procedure be implemented for Timber Rattlesnake encounters and workers are to be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of Timber Rattlesnakes is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.

5. During the construction period, PFBC personnel may communicate with the on-site biologist and may visit the site area periodically to view the progression of the project and answer any questions or concerns that may arise. For safety purposes, PFBC personnel will register with the on-site manager upon entering the construction area.

If impacts to gestation/basking habitat are unavoidable, then we recommend creation of suitable habitat (see attached) under the direction of a qualified surveyor.

Enclosed is the list of PFBC approved rattlesnake biologists for your convenience. The qualified/recognized herpetologist is to be on-site during all project activity within 300 feet of any areas identified as denning or gestation habitat. A summary report detailing the monitoring efforts shall be submitted to this office at the conclusion of the construction monitoring surveys.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not

necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Josh Brown at 814-359-5129 or joshbrown@pa.gov and refer to the SIR # 60062. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive style with a large, prominent "C" at the beginning.

Christopher A. Urban, Chief
Natural Diversity Section

CAU/JRB/dn

Enclosures

EXHIBIT 13



August 30, 2024

Sent Via PA-SHARE

RE: ER Project # 2024PR03888.001, Seward-Johnstown 230 kV Transmission Line Rebuild Project, Department of Environmental Protection, East Wheatfield Township, Indiana 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 Taylor Napoleon at tnapoleon@pa.gov.

Archaeological Resources

More Information Requested - Environmental Review - More Info - Archaeological - Known Site

The following previously recorded archaeological sites are located within or adjacent to your project area Site: 36CB0146. These resources could be adversely affected by project activities and have not been evaluated for their eligibility for listing in the National Register of Historic Places. It is our opinion that a Phase I archaeological survey to relocate these known sites and locate other potentially significant sites within the project area should be conducted. Guidelines and instructions for conducting all phases of archaeological survey in Pennsylvania are available on our website:

<https://www.phmc.pa.gov/Preservation/About/Documents/Guidelines%20for%20Archaeological%20>

More Information Requested - New Survey

Please use this request for information to enter survey details, add any identified archaeological resources, and upload the Phase I archaeological survey report. 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 Justin McKeel at jusmckeel@pa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Frederick". The signature is written in a cursive style with a large initial "B" and a stylized "F".

Barbara Frederick
Environmental Review Division Manager



December 23, 2024

Sent Via PA-SHARE

RE: ER Project # 2024PR03888.003, Seward-Johnstown 230 kV Transmission Line Rebuild Project , Department of Environmental Protection, East Wheatfield Township, Indiana 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

This report meets our standards and specifications as outlined in Guidelines for Archaeological Investigations in Pennsylvania (SHPO 2021) and the Secretary of the Interior's Guidelines for Archaeological Documentation. The Phase I archaeological survey identified two newly recorded historic period archaeological sites, 36CB0226 and 36WM1544. As both sites extend, or likely extend, beyond the surveyed area, PA SHPO cannot make a determination of eligibility for either site. However, PA SHPO concurs that the portions of both of these sites within the project area would not contribute to the eligibility of these sites, should they be determined eligible for listing in the National Register of Historic Places (NRHP) in the future. In our opinion, no further archaeological work is necessary for this project. If project plans should change and/or you should be made aware of historic property concerns, including archaeological resources, please reinitiate consultation with our office via PA-SHARE.

For questions concerning archaeological resources, please contact Justin McKeel at jusmckeel@pa.gov.

Sincerely,

A handwritten signature in black ink that reads 'B. Frederick'.

Barbara Frederick
Environmental Review Division Manager

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

LETTER OF NOTIFICATION OF :
MID-ATLANTIC INTERSTATE :
TRANSMISSION, LLC FOR THE :
JOHNSTOWN-SEWARD 230 :
KILOVOLT TRANSMISSION LINE : **Docket No. _____**
REBUILD PROJECT IN ST. CLAIR :
TOWNSHIP IN WESTMORELAND :
COUNTY, EAST WHEATFIELD :
TOWNSHIP IN INDIANA COUNTY, :
AND JACKSON TOWNSHIP IN :
CAMBRIA COUNTY, :
PENNSYLVANIA :

VERIFICATION

I, Michael DeSarro, state that I am a Transmission Specialist for FirstEnergy Service Company; that I am authorized to make this Verification on behalf of Mid-Atlantic Interstate Transmission, LLC; 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).



Date: June 3, 2026

Michael DeSarro