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June 5, 2026

VIA ELECTRONIC FILING

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

Re: Joint Letter of Notification of Keystone Appalachian Transmission Company and FirstEnergy Pennsylvania Electric Company for Approval of the Bredinville-McCalmont 138 Kilovolt Transmission Line Interconnection Project in Butler Township, Butler County, Pennsylvania.
Docket No. _____

Dear Secretary Homsher:

Enclosed for filing on behalf of Keystone Appalachian Transmission Company ("KATCo") and FirstEnergy Pennsylvania Electric Company ("FE PA") is a joint Letter of Notification ("LON"), requesting approval for the Bredinville-McCalmont 138 Kilovolt ("kV") Transmission Line Interconnection 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. We request that one filing fee be counted for both dockets.

KATCo and FE PA request Commission review and approval of the LON on or before August 27, 2026, Public Meeting, in order to allow construction to commence on/about September 25, 2026, in accordance with scheduled outages.

**REQUEST FOR CONFIDENTIAL TREATMENT
OF PROPRIETY AND NON-PUBLIC INFORMATION**

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

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

Respectfully submitted,



Garrett P. Lent

GPL/sll
Enclosures

cc: Deb Backer - Bureau of Technical Utility Services
Jordan Van Order - Bureau of Technical Utility Services
Certificate of Service

CERTIFICATE OF SERVICE

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

VIA CERTIFIED MAIL: RETURN RECEIPT REQUESTED

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

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

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

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

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

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

Pennsylvania Department of Conservation and Natural Resources
400 Market St.
Harrisburg, PA 17105

Pennsylvania Game Commission
2001 Elmerton Ave.
Harrisburg, PA 17110-9797

Pennsylvania Fish and Boat Commission
1601 Elmerton Ave.
Harrisburg, PA 17110

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

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

Ian Harrell, District Manager
Butler County Conservation District
120 Hollywood Drive, Suite 201
Butler, PA 16001

Erin Wells, Regional Director
Pennsylvania Department of Environmental Protection, Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335

Leslie A. Osche, Chair
Butler County Commissioners
124 W Diamond Street
Butler, PA 16001

Kimberly D. Geyer, Vice Chair
Butler County Commissioners
124 W Diamond Street
Butler, PA 16001

Commissioner Edward Natali
Butler Township President
290 South Duffy Road
Butler, PA 16001

Commissioner Jeffrey Pakutz
Butler Township
290 South Duffy Road
Butler, PA 16001

Theresa Giesler
Butler Township Secretary
290 South Duffy Road
Butler, PA 16001

Mark Gordon
Butler County Planning Commission
124 West Diamond Street
Butler, PA 16001

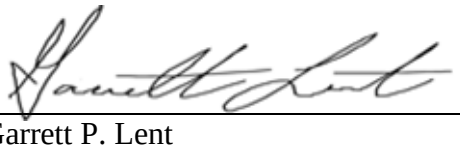
Kevin E. Boozel, Secretary
Butler County Commissioners
124 W Diamond Street
Butler, PA 16001

Commissioner David Rice
Butler Township
290 South Duffy Road
Butler, PA 16001

Cheryl McNeill
Butler Township Director of Finance
290 South Duffy Road
Butler, PA 16001

Cleveland-Cliffs, Inc.
1 Armco Drive
Lyndora, PA 16045

Date: June 5, 2026



Garrett P. Lent

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

JOINT LETTER OF NOTIFICATION OF KEYSTONE APPALACHIAN TRANSMISSION COMPANY AND FIRSTENERGY PENNSYLVANIA ELECTRIC COMPANY FOR APPROVAL OF THE BREDINVILLE-MCCALMONT 138 KILOVOLT TRANSMISSION LINE INTERCONNECTION PROJECT IN BUTLER TOWNSHIP, BUTLER COUNTY, PENNSYLVANIA.	:	**Docket No. _____**

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

Pursuant to 52 Pa. Code § 57.72(d)(1)(i) and (d)(1)(vi), Keystone Appalachian Transmission Company, ("KATCo") and FirstEnergy Pennsylvania Electric Company ("FE PA") (together, the "Companies") jointly submit this Letter of Notification requesting that the Pennsylvania Public Utility Commission ("Commission") approve the Bredinville–McCalmont 138 Kilovolt ("kV") Transmission Line Interconnection Project ("Project") as described herein.

The proposed Project was developed to provide a new 138 kV retail delivery point to Cleveland-Cliffs, Inc. (the "Customer"). The Customer requested the proposed delivery point for electric service to a new Customer-owned substation with a proposed load of 80 megavolt-amperes ("MVA") to support its Butler Works Steel Slab Electrified Induction Reheat Furnace Upgrade Project. The Project will consist of tapping the existing Bredinville–McCalmont 138 kV Transmission Line by constructing an approximately 0.17-mile (900 foot) double circuit 138 kV transmission line to a point of interconnection ("POI") with FE PA on a dead-end structure owned

by FE PA. From this POI, FE PA will own one span to a POI on a Customer-owned dead-end structure. The Project will be constructed in Butler Township, Butler County, Pennsylvania. The Companies have 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 September 25, 2026, to meet an in-service date of December 31, 2026. To support the construction timeline, the Companies respectfully request that the Commission issue its final ruling by the Public Meeting scheduled for August 27, 2026.

In support thereof, the Companies submit as follows:

I. INTRODUCTION

1. KATCo and FE PA are public utilities 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 KATCo's and FE PA's principal business office is:

Keystone Appalachian Transmission Company 341 White Pond Drive Akron, OH 44320	FirstEnergy Pennsylvania Electric Company 800 Cabin Hill Drive Greensburg, PA 15601

3. The attorneys representing KATCo and FE PA 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: (717) 490-3292
E-mail: tgiesler@firstenergycorp.com

David B. MacGregor (ID #28804)
Garrett P. Lent (ID #321566)
Megan E. Rulli (ID # 331981)
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301 Grant Street, Suite 3010
Pittsburgh, PA 15219
Phone: (717) 612-6052
Fax: (717) 731-1985
E-mail: egrecu@postschell.com

KATCo and FE PA agree to accept electronic service in this proceeding.

4. KATCo and FE PA also request that a copy of all notices and communications regarding this matter be sent to:

Nataliya Bryksenkova
Engineer
FirstEnergy Service Company
341 White Pond Drive
Akron, OH 44320
Phone: (330)761-4473
E-mail: nbryksenkova@firstenergycorp.com

5. The Companies provide the following attached exhibits in support of this LON:

- **Exhibit 1:** A depiction of the general location of the proposed Project;
- **Exhibit 2:** A depiction of the general layout of the proposed Project;
- **Exhibit 3:** A depiction of a 138 kV single circuit steel pole dead-end structure;
- **Exhibit 4:** A copy of the PJM Interconnection, LLC ("PJM") Subregional Regional Transmission Expansion Plan ("SRRTEP") committee meeting solution slides, dated March 19, 2026;
- **Exhibit 5:** A copy of the Waters Delineation Report ("WDR") prepared by Civil and Environmental Consultants ("CEC") for the Customer, dated July 2025 and amended March 2026;

- **Exhibit 6:** A copy of the Pennsylvania Natural Diversity Inventory ("PNDI") review dated February 26, 2026,[1] including agency comments from the Pennsylvania Game Commission ("PGC"), Pennsylvania Department of Conservation and Natural Resources ("DCNR"), Pennsylvania Fish and Boat Commission, and agency clearance correspondence from the U.S. Fish and Wildlife Service ("USFWS"); and
- **Exhibit 7:** Copies of the Pennsylvania State Historic Preservation Office ("SHPO") clearance letters dated March 18, 2026.

6. This Joint 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 provide a new 138 kV retail delivery point to a Customer-owned substation in Butler Township, Butler County, Pennsylvania. KATCo and FE PA will construct an approximately 0.17-mile (900 foot) double circuit 138 kV transmission line loop to a POI with FE PA on a dead-end structure owned by FE PA. From this POI, FE PA will own one span to a POI on a Customer-owned dead-end structure.

B. Existing System

8. The existing Bredinville–McCalmont 138 kV Transmission Line consists of 1024.5 kcmil 24/13 aluminum conductor alloy reinforced ("ACAR") conductor and 3#6 Alumoweld shield wire. The existing structures in the area of the Project range in height from approximately 95 to 121 feet and are steel lattice double circuit structures, accommodating the Bredinville–

[1] The PNDI encompasses the area of both Phase 1, which is subject to this Letter of Notification filing, and the future Phase 2 portion of the Project, as described further below.

McCalmont 138 kV and the Cabot–Fawn–McCalmont (Lawson Junction) 138 kV Transmission Lines.

9. A layout of the proposed Project is provided as **Exhibit 2.**

C. Identification of Need

10. The Project is needed to provide a new 138 kV retail delivery point to the Customer. The Customer requested the proposed delivery point for electric service for approximately 80 MVA. The Project is not part of a larger project or initiative and is solely needed to provide the requested new 138 kV retail delivery point.

11. To fully meet the needs of the Customer, the proposed Project will be constructed in two phases. Phase One, which is the subject of this filing, will consist of looping the existing Bredinville–McCalmont 138 kV Transmission Line to a new customer substation by constructing an approximately 0.17-mile (900 foot) double circuit 138 kV transmission line to a single interconnect point, adjusting remote end relay settings, and installing one 138 kV revenue meter. Phase Two will consist of constructing a four breaker 138 kV ring bus in the area that will be occupied by this proposed Project, interconnecting the Phase One 138 kV lines and service point to the ring bus, installing an additional 138 kV revenue meter, and adjusting remote end relay settings.[2] All new network path components associated with the proposed Project will be sized so that the new equipment will not reduce the present rating of the existing Bredinville–McCalmont 138 kV Transmission Line. The Project will be designed in accordance with FirstEnergy's Requirements for Transmission Connected Facilities.[3]

12. Due to the Customer's proximity to the existing Bredinville–McCalmont 138 kV Transmission Line, no other alternatives were considered.

[2] Phase Two of the Project will be the subject of a future Letter of Notification filing.

[3] https://firstenergycorp.com/content/dam/feconnect/files/wholesale/Requirements-for-Transmission-Connected-Facilities.pdf

13. PJM is the regional transmission organization for Pennsylvania and 12 other states plus the District of Columbia. PJM functions as the regional planning coordinator, transmission planner, and transmission operator to preserve the reliability of the bulk electricity grid under its operational control. The PJM planning process culminates in a PJM board-approved Regional Transmission Expansion Plan ("RTEP"), which identifies the need and timing of transmission system upgrades and enhancements to provide for the operational, economic, and reliability requirements of PJM customers. The RTEP consists of system upgrades produced from one or more of four planning processes: reliability planning, economic planning, interconnection planning, and local planning.

14. The proposed Project is a "Supplemental Project" or upgrade initiated by KATCo, the Transmission Owner ("TO"), as part of PJM's local planning process, which is governed by Attachment M-3 of the PJM Open Access Transmission Tariff ("OATT"). In accordance with the Attachment M-3 process, the TO provides information regarding the criteria used to plan and identify Supplemental Projects at a PJM Assumptions Meeting. The process for developing Supplemental Projects requires the identification of a system "need" at a PJM SRRTEP committee meeting, which provides an opportunity for industry stakeholders to comment on the project need. Next, there is a "solutions" meeting where a proposed solution to the previously identified need is presented along with any alternatives that were considered. Stakeholders can provide comments on the proposed solution.

15. In accordance with the PJM OATT, Attachment M-3, the proposed Project was presented at the PJM SRRTEP – Western Need meeting on January 16, 2026, and a Solution meeting held March 19, 2026. The Company's PJM SRRTEP – Western presentation solution slides are included as **Exhibit 4.**

16. Once PJM completes its do-no-harm analysis of the Project, PJM will assign the Project a supplementer identifier beginning with an "s" followed by a four-digit number. The Supplemental Number for the proposed Project will be provided once it becomes available. Supplemental upgrades are not mandated or directed by PJM; however, the upgrades are necessary in order to address planning functions not transferred to PJM (*e.g.*, asset management and customer interconnections). These projects reflect the TOs' obligation to serve their local service territory and are grounded in good utility practice.

17. KATCo did not consider the use of any advanced technologies for this Project since most of the work will be completed adjacent to the existing Bredinville–McCalmont 138 kV Transmission Line. Some examples of advanced technologies that KATCo considers when proposing reliability enhancement projects include dynamic line rating technologies and the use of advanced conductors. Dynamic line rating technologies use software and hardware to determine the thermal limits of a transmission line in real time based on rating methodologies and ambient conditions within a given area, thereby increasing or decreasing the transmission line's thermal rating. Advanced conductors are conductors with steel or non-steel wire cores that are typically used in conventional transmission line conductors. These advanced conductors allow for increased capacity on a given transmission line due to the reduced sagging of the transmission line at higher temperatures. These advanced technologies were not considered because the existing transmission line, as it is designed today, does not have any capacity constraints.

D. THE PROPOSED PROJECT

18. In this Project, the Companies propose to construct an approximate 0.17-mile (900 foot) double circuit transmission line loop from the existing Bredinville–McCalmont 138 kV Transmission Line to the new Customer-owned substation.

19. The proposed transmission line loop will be constructed from existing structure #15-N on the existing Bredinville–McCalmont 138 kV Transmission Line. The transmission line loop will be located approximately 0.6 miles from the existing Bredinville Substation and approximately 1.2 miles from the existing McCalmont Substation.

20. The proposed Project will be located within an existing 205-foot-wide right-of-way ("ROW") as well as a new 225-foot-wide ROW that crosses a parcel owned by the Customer in Butler Township, Butler County, Pennsylvania.

21. A depiction of the proposed Project's general location is provided in **Exhibit 1**. A depiction of the proposed Project's general layout is provided in **Exhibit 2**.

22. To construct the Project, six new structures will be installed. As shown in **Exhibit 3,** all six new structures will be single circuit dead-end structures. The proposed structures will have an approximate above-ground height of 121 feet. The proposed structures match the structure height of the existing steel lattice tower structure #15-N on the Bredinville–McCalmont 138 kV Transmission Line.

23. The Project will require the installation of 0.17 miles (900 foot) of new 954 kcmil 45/7 aluminum conductor steel reinforced "RAIL" conductor, shielded with 7#8 Alumoweld static wire on the proposed loop line from structure #15-N to the Customer-owned substation. The existing 1024.5 kcmil 24/13 ACAR conductor and 3#6 Alumoweld shield wire on the Bredinville–McCalmont 138 kV Transmission Line will be used to re-attach the existing line to the new structures.

24. KATCo will own the portion of the proposed transmission line loop from new structures #15N-1 and #14N-1 to new structures #15N-2 and #14N-2. FE PA will own the portion of the proposed transmission line loop from new structures #15N-2 and #14N-2 to new structures #15N-3 and #14N-3. The Customer will own the portion of the proposed transmission line loop

from new structures #15N-3 and #14N-3 to the new Customer substation. The estimated Project cost is approximately $4,255,000. This cost includes approximately $737,000 for engineering, $717,000 for materials, and $2,801,000 for construction. KATCo will be responsible for $4,121,000, and FE PA will be responsible for $50,000. The Customer will be responsible for $84,000. **CONFIDENTIAL Attachment A** contains a detailed breakdown of these Project costs.

III. HEALTH AND SAFETY

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

26. KATCo's design criteria require that 138 kV transmission lines shall have a designed vertical conductor to ground clearance of 26 feet. This design value exceeds the NESC minimum of 20.7 feet by a margin of 5.3 feet. In general, KATCo clearance criteria exceed the NESC minimums by margins ranging from two to seven feet, depending on the voltage and specific clearance measurement. The maximum operating temperature will be 212 degrees Fahrenheit.

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

IV. DESCRIPTION OF RIGHT OF WAY

28. The proposed Project will be located within existing 205-foot-wide ROW and on a new 225-foot-wide ROW. The current easements for the existing Bredinville–McCalmont 138 kV Transmission Line common corridor allow for the installation of the proposed loop structure. However, new easements will be required for the 138 kV transmission line loop.

29. The new ROW is located completely on property owned by Customer. The Customer will grant the Companies the ROW needed for the Project. The proposed new ROW will impact one Customer-owned parcel, parcel 052-66-1-0000. Upon completion of the Project, there will be six new permanent structures located on this parcel.

V. LAND USE AND ENVIRONMENTAL EVALUATION

30. As explained above, construction of the proposed Project will take place within the existing ROW and on a new 225-foot-wide ROW located on Customer-owned property.

31. A copy of the WDR for the Customer's Butler Works Steel Slab Electrified Induction Reheat Furnace Upgrade Project, inclusive of the proposed transmission line loop Project area, which was conducted by CEC, is included as **Exhibit 5**. The WDR area of interest includes areas beyond the KATCo and FE PA limits of disturbance ("LOD") for the Project. The WDR identified that three wetlands and one stream are present within the Project area for the transmission line loop. No impacts to aquatic resources are anticipated from Project activities, as the proposed Project aerially spans the identified wetlands. The KATCo and FE PA Project LOD will fall within the bounds of a National Pollutant Discharge Elimination System permit submitted by the Customer, which is currently pending approval.

32. A PNDI database search was conducted on February 26, 2026. A copy of the PNDI receipt is included as **Exhibit 6**. The PGC deferred comments on species to the USFWS, and the USFWS requested that the Project be screened through the Information for Planning and

Consultation ("IPaC") tool. An IPaC submittal was completed on February 26, 2026, which found that the Project would have no effect on the Eastern Hellbender and is not likely to adversely affect the Eastern Massasauga or the Indiana Bat, stated that coordination with the USFWS is complete. These results are included in **Exhibit 6.**

33. A Section 106 consultation was prepared and submitted to the SHPO on March 13, 2026. SHPO concurrence was received on March 18, 2026, which stated that the Project would have no effect on archaeological resources. A copy of the SHPO concurrence is included as **Exhibit 7**.

VI. NOTICE

34. The Companies have provided information regarding the Project to representatives of Butler Township and Butler County. Butler Township is aware of the proposed Project and has a general understanding of its scope. The Township has indicated that it has no objections to the 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

35. The Companies are proceeding by means of a Letter of Notification, instead of a full Application, pursuant to the Commission's regulations at 52 Pa. Code § 57.72(d)(1)(i) and (d)(1)(vi).

36. The proposed Project involves the installation of an approximately 0.17-mile (900 feet) double circuit transmission line loop consisting of six transmission line structures within existing and new transmission line ROW to support a Customer-requested retail delivery point. As such, the proposed Project qualifies for use of a Letter of Notification because it will be a new

high-voltage ("HV") line located entirely within the applicant's existing transmission line ROW and the property of the sole customer to be served by the line. *See* 52 Pa. Code § 57.72(d)(1)(i). In addition, the Project qualifies for a Letter of Notification because it consists of an HV line with a proposed route of two miles or less. *See* 52 Pa. Code § 57.72(d)(1)(vi).

37. 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, Keystone Appalachian Transmission Company and FirstEnergy Pennsylvania Electric Company respectfully request that the Pennsylvania Public Utility Commission review and approve the proposed Bredinville–McCalmont 138 kV Transmission Line Interconnection Project in Butler Township, Butler County, Pennsylvania, as explained above and, in the exhibits, attached hereto, on or before the Public Meeting scheduled for August 27, 2026.



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

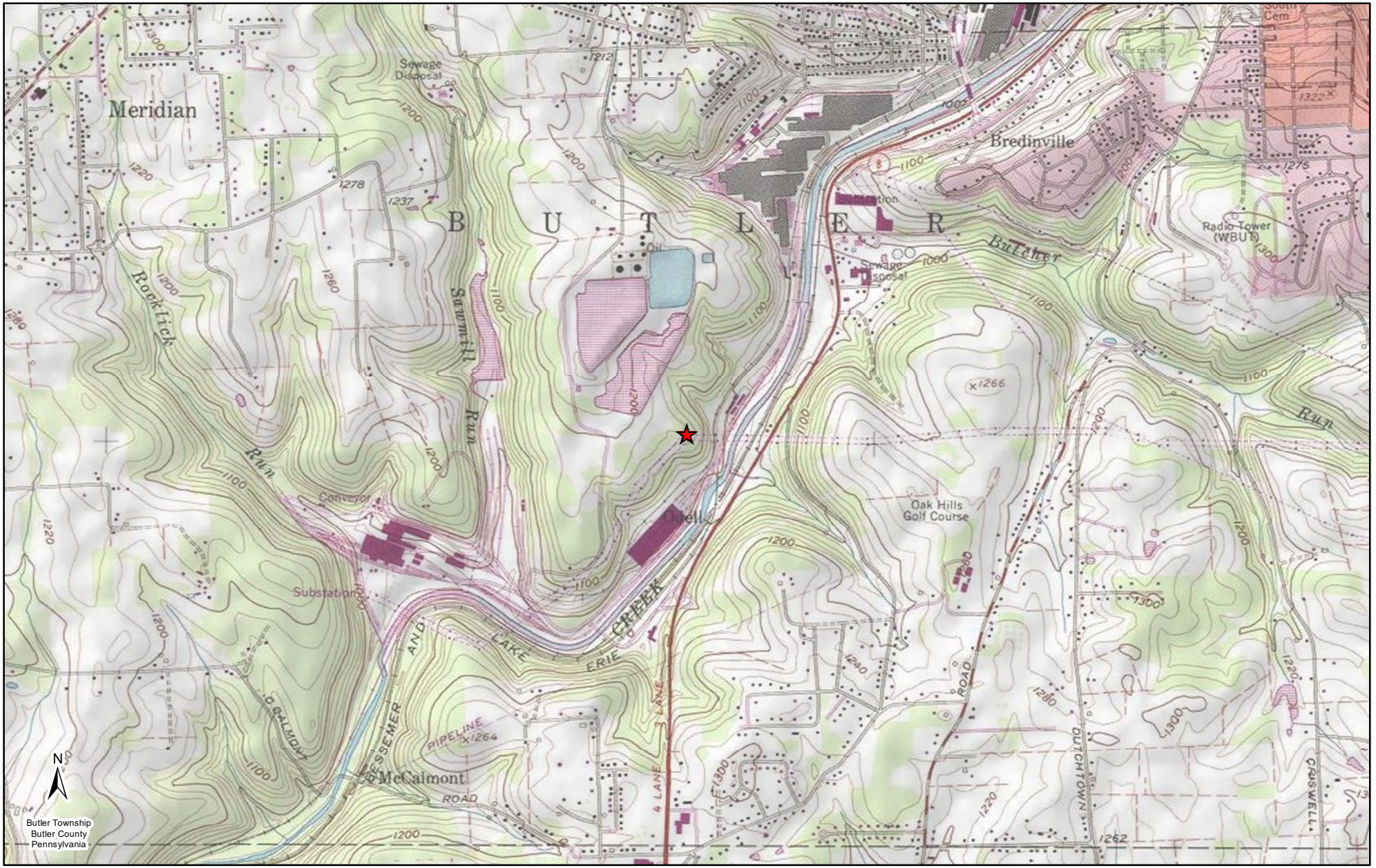
David B. MacGregor (ID #28804)
Garrett P. Lent (ID #321566)
Megan E. Rulli (ID # 331981)
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Attorneys for Keystone Appalachian Transmission Company and FirstEnergy Pennsylvania Electric Company

Date: June 5, 2026

EXHIBIT 1



LEGEND:

★ Project Area

0 1,000 2,000 4,000

Feet

Reference:
USGS Topographical Overlay; PennDOT, PADCNR PAMAP

Coordinate System:
NAD_1983_StatePlane_Pennsylvania_North_FIPS_3701_Feet
WKID: 2271 Authority: EPSG

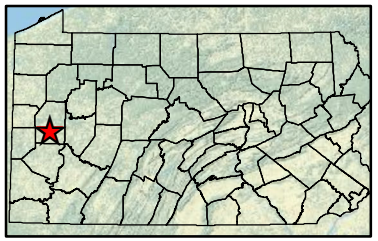
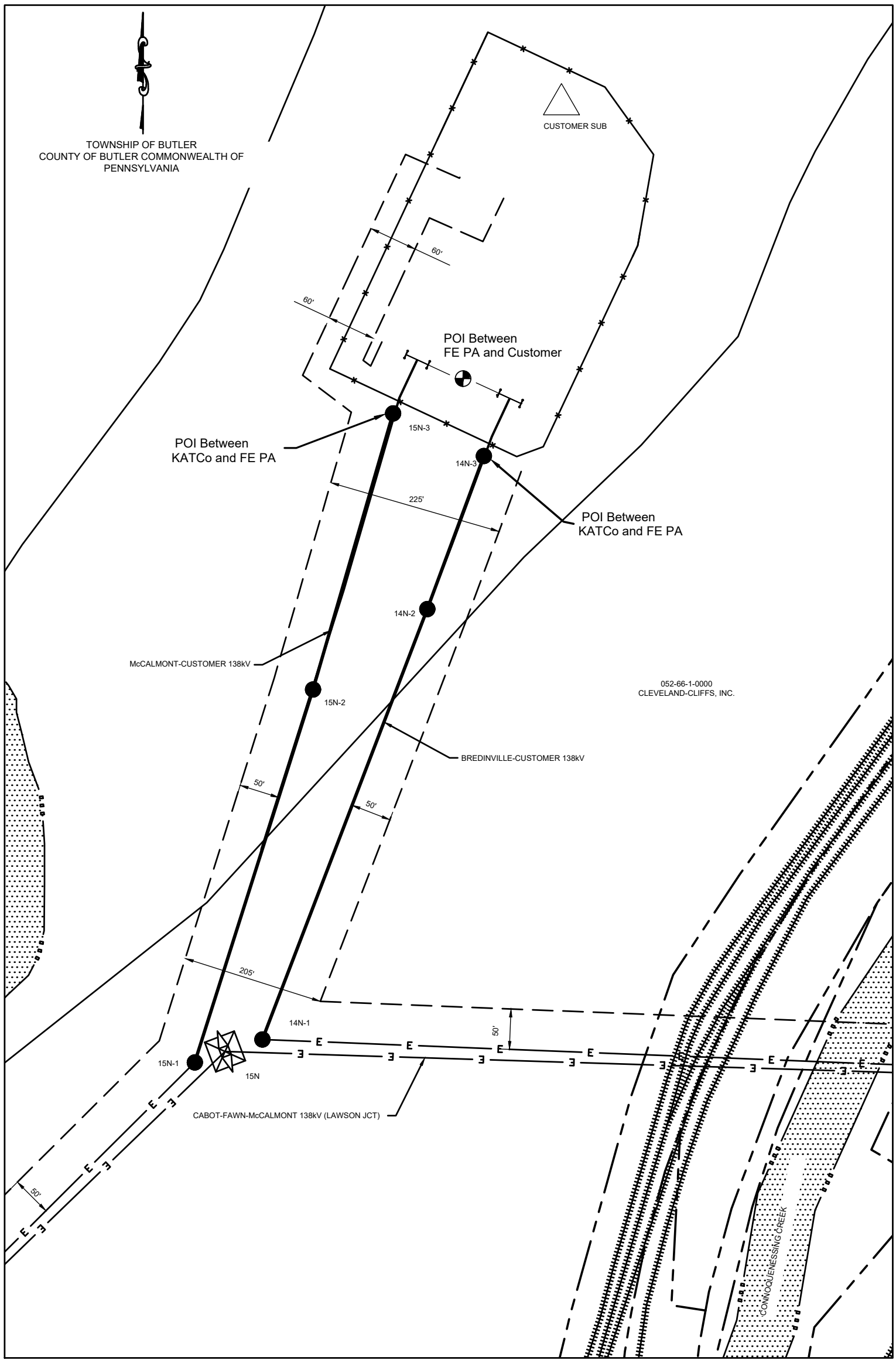


EXHIBIT 1

KATCo™
Keystone Appalachian Transmission Company
A FirstEnergy Company

Bredinville-McCalmont 138 kV
Transmission Line Loop to Cleveland Cliffs

EXHIBIT 2



LEGEND

- CUSTOMER SUBSTATION
- EXISTING LATTICE TOWER
- NEW STEEL TRANSMISSION POLE
- TRANSMISSION CENTERLINE
- PROPOSED ROW
- PROPERTY LINE
- PROPOSED SUBSTATION FENCE
- RIVER/CREEK
- RAILWAY
- EXISTING TRANSMISSION LINE
- ROADS

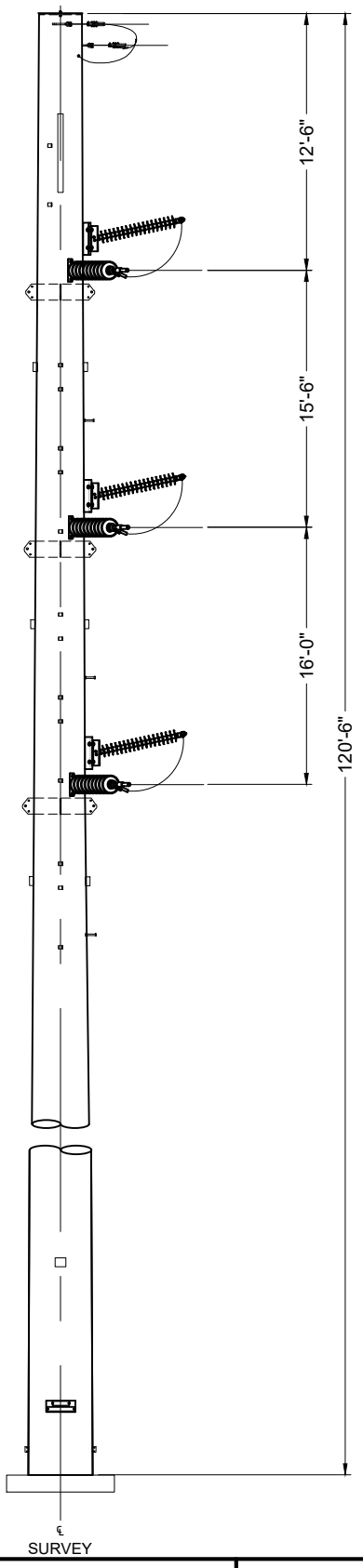
KATCo
Keystone Appalachian Transmission Company
A FirstEnergy Company

BREDINVILLE-McCALMONT 138 kV TRANSMISSION LINE LOOP
TO CLEVELAND CLIFFS PROJECT

GENERAL LAYOUT

EXHIBIT 2

EXHIBIT 3



KATCo™
Keystone Appalachian Transmission Company
A FirstEnergy Company

BREDINVILLE-McCALMONT 138 kV
TRANSMISSION LINE LOOP
TO CLEVELAND CLIFFS PROJECT

138 kV SINGLE CIRCUIT
STEEL POLE DEADEND STRUCTURE

EXHIBIT 3

PRELIMINARY - NOT FOR CONSTRUCTION

PAPER SIZE: 8.5X11

EXHIBIT 4

EXHIBIT 4

APS Transmission Zone M-3 Process
New Customer Request

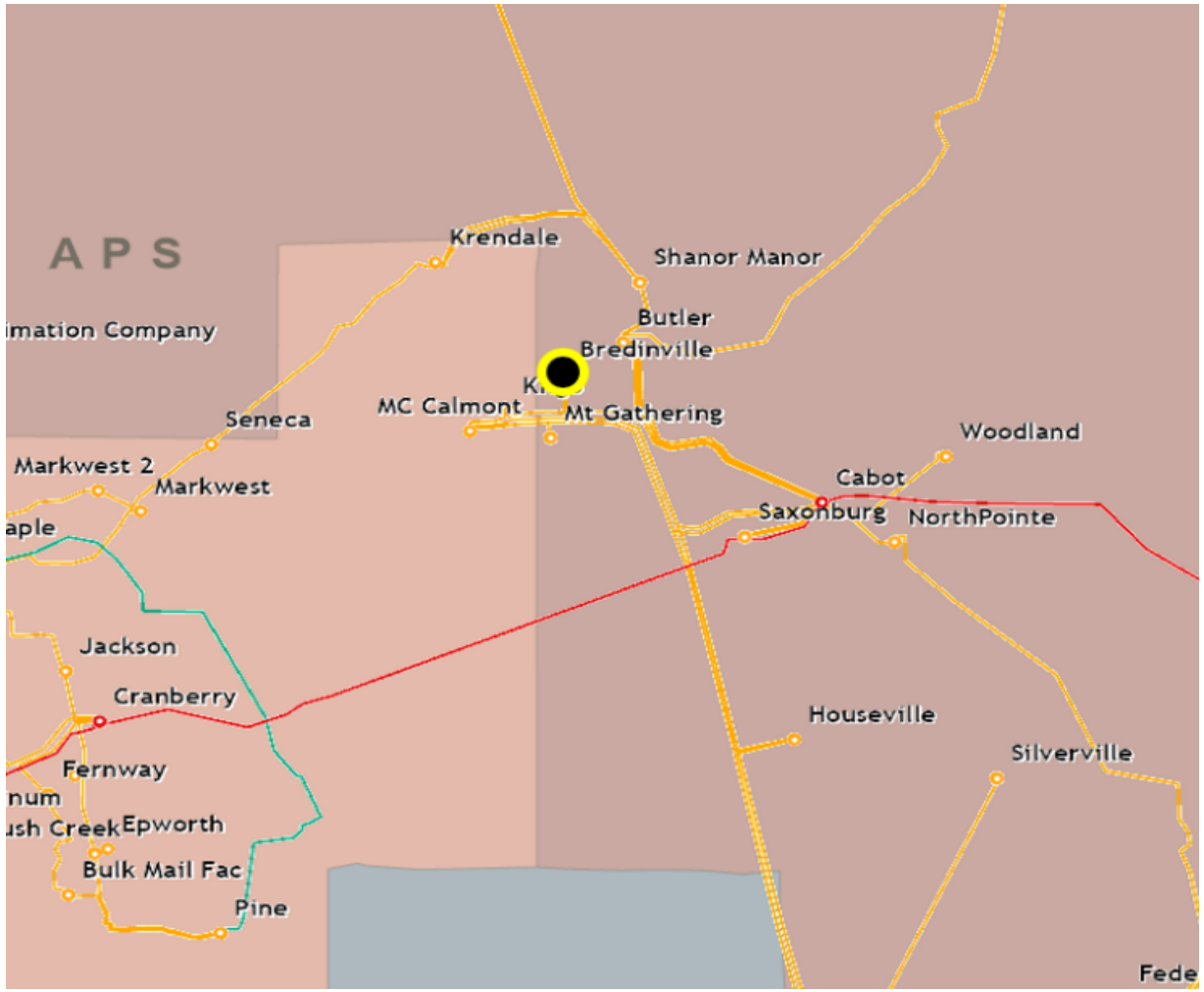
Need Number: APS-2026-004
Process Stage: Solution Meeting SRRTEP-W - 03/19/2026
Previously Presented: Need Meeting SRRTEP-W - 01/16/2026

Project Driver:
Customer Service

Specific Assumption References:
New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:
New Customer Connection - A customer located near the existing Bredinville - McCalmont 138 kV Line requested a new 138 kV delivery point. The anticipated load of the new customer connection is 80 MW.

Anticipated in-service date is 3/15/2028.



APS Transmission Zone M-3 Process
New Customer Request

Need Number: APS-2026-004
Process Stage: Solution Meeting SRRTEP-W - 03/19/2026

Proposed Solution:

Bredinville - McCalmont 138 kV Line Interconnection:

Construct a new four-breaker (future five-breaker) 138 kV station, cut into the Bredenville - Kilgo 138 kV Line and loop the line in and out of the new ring bus station. Construct two 138 kV spans from the new ring bus station to the POI with the Customer.

Transmission Line Ratings: 287 / 287 / 287 / 287 MVA (SN/SSTE/WN/WSTE)

Alternatives Considered:

No reasonable alternatives to meet the customer request due to the proximity of the Bredinville - McCalmont 138 kV Line.

Estimated Project Cost: $22.75M
Projected In-Service: 12/18/2026
Status: Conceptual
Model: 2024 RTEP model for 2029 Summer & Winter (50/50)

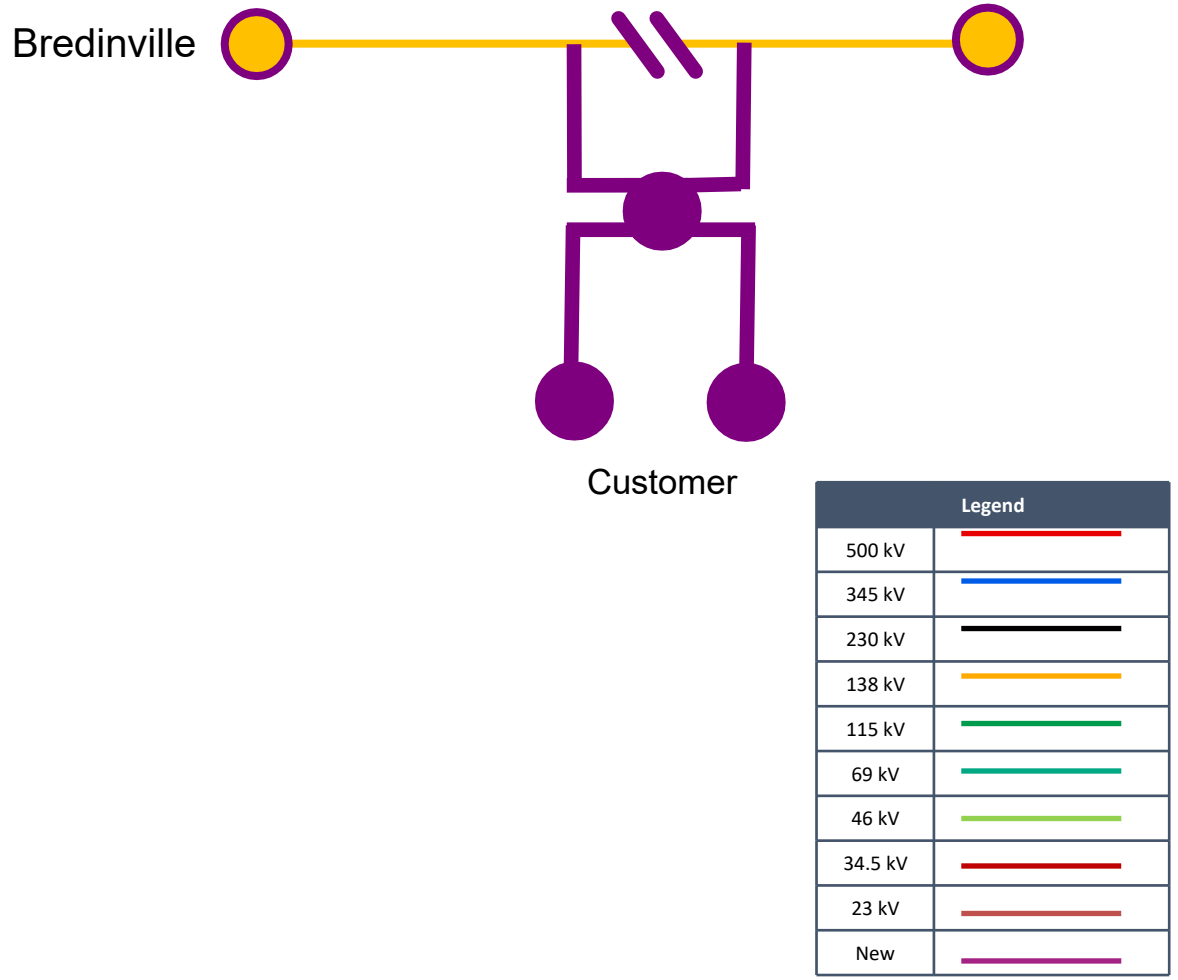


EXHIBIT 5

EXHIBIT 5

WATERS DELINEATION REPORT

BUTLER WORKS STEEL SLAB ELECTRIFIED INDUCTION REHEAT FURNACE UPGRADE PROJECT
1 ARMCO DRIVE
BUTLER COUNTY, PENNSYLVANIA

Prepared For:

CLEVELAND CLIFFS STEEL CORPORATION
1 ARMCO DRIVE,
LYNDORA, PA 16045

Prepared By:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
700 CHERRINGTON PARKWAY,
MOON TOWNSHIP, PA 15108

CEC Project 343-504, 344-808, and 351-030

JULY 2025
REVISED MARCH 2026

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1.0 INTRODUCTION

On behalf of Cleveland Cliffs Steel Corporation, Civil & Environmental Consultants, Inc. (CEC) conducted a waters delineation of the Butler Works Steel Slab Electrified Induction Reheat Furnace Upgrade project located in Butler County, Pennsylvania (40.834755°, -79.926277°; Figure 1).

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

This report is intended to document potentially jurisdictional waters using regulatory guidelines. The status and extent of waters is subject to jurisdictional determination by the USACE and state agencies. Under the current federal operative WOTUS rules (2023 Conforming Rule amended for Sackett v. Environmental Protection Agency (USEPA) 598 U.S. 651 and Rapanos v. U.S. 547 U.S. 715 and the Pre-2015 Regulatory Regime) and the March 24, 2025 joint USACE/USEPA memo WOTUS Notice: The Final Response to SCOTUS, ephemeral streams may not be considered WOTUS since they may not be Relatively Permanent Waterbodies (RPWs). The relatively permanent standard is flowing or standing water year-round or continuously during certain times

of year. “Certain times of the year” is intended to include extended periods (typically at least 3 months) of standing or continuously flowing water occurring in the same geographic feature year after year, except in times of drought. RPWs do not include tributaries with flowing or standing water for only a short duration in direct response to precipitation. No minimum flow duration for RPWs has been established because flow duration qualifying as “continuously during certain times of year” varies extensively by regional climate. The flow regimes ascribed to the delineated streams is a preliminary opinion based on channel conditions at the time of the field delineation and may require supplemental data for jurisdictional determination purposes. Similarly, isolated streams or wetlands that lack a continuous surface connection to RPWs and Traditional Navigable Waters (TNWs) may also not qualify as WOTUS, but downstream connectivity of the delineated waters may require further investigation to sufficiently determine jurisdictional status according to the continuous surface connection test.

This report includes the findings of a desktop data review and field delineation of current site conditions. The purpose was to identify, characterize, and delineate wetlands, streams, and other waters located within the AOI. This report presents the methodology and findings.

2.0 METHODOLOGY

2.1 ENVIRONMENTAL DATA REVIEW

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

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

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

2.2 FIELD METHODS

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

2.2.1 Wetland Delineation

CEC ecologists identified, characterized, and delineated wetlands in accordance with the routine, on-site determination methodology described in the USACE's *Corps of Engineers Wetlands*

Delineation Manual (Environmental Laboratory 1987); referred to hereafter as the Corps Manual, supplemented by the following technical guidance documents:

- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (USACE 2012); (referred to hereafter as Regional Supplement);
- *National Wetland Plant List* (USACE 2022); and
- *Field Indicators of Hydric Soils in the United States Version 8.2* (USDA-NRCS 2018).

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

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

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

- **Palustrine emergent wetland (PEM):** rooted herbaceous and grass like plants which stand erect above the water or ground surface characterize this wetland class (excluding

mosses or lichens). Vegetation is present for most of the growing season in most years. Emergent wetlands include marshes, meadows, and fens.

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

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

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

2.2.2 Stream and Other Waters Delineation

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

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

In addition, all watercourses, which include streams, are defined in Pennsylvania as "a channel or conveyance of surface water having defined bed and banks" (P.A. Code § 105.1). The federal and state guidance were applied to determine the extents of streams.

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

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

The uppermost limit of an ephemeral stream was established where the stream loses its defined bed and bank or OHWM. Stream boundaries were located using GNSS receivers capable of sub-meter accuracy. The physical characteristics of the streams and field observations were summarized on field data forms.

3.0 RESULTS

3.1 ENVIRONMENTAL DATA REVIEW

The USGS 7.5-minute topographic quadrangle and NHD stream layer identified one stream (R5UBH) within the AOI which is located within the facility boundaries and is no longer present (Figures 1 and 2). The NWI data identified one wetland (PUBH) within the AOI. The feature was identified as a retention pond being utilized by the facility (Figure 2). The SSURGO data identified ten soil mapping units within the AOI, all of which are rated as predominantly not hydric or not hydric (Appendix A, Table 1 and Figure 2). No FEMA floodways are located in the AOI.

Table 1. SSURGO Soil Mapping Units within the AOI

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Rating
Ar	Arents-Urban land complex	Well Drained	Predominantly Not Hydric
CoC	Cookport loam, 8 to 15 percent slopes	Moderately Well Drained	Not Hydric
HgF	Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony	Well Drained	Not Hydric
BxD	Buchanan loam, 8 to 25 percent slopes, extremely stony	Well Drained	Predominantly Not Hydric
ClB	Cavode silt loam, 3 to 8 percent slopes	Well Drained	Predominantly Not Hydric
ClC	Cavode silt loam, 8 to 15 percent slopes	Well Drained	Predominantly Not Hydric
Dd	Dumps, industrial waste	Well Drained	Predominantly Not Hydric
HaE	Hazleton channery loam, 25 to 35 percent slopes	Well Drained	Not Hydric
UeB	Urban land-Ernest complex, 0 to 8 percent slopes	Well Drained	Predominantly Not Hydric
UeC	Urban land-Ernest complex, 8 to 15 percent slopes	Well Drained	Predominantly Not Hydric

(1) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov), accessed 02/28/2025.

3.2 FIELD RESULTS

CEC staff conducted a field delineation on July 8-9, 2024, February 26 and Jun 30, 2025, and March 12, 2026, to identify, delineate, and classify wetlands, streams, and other waters within the AOI. The AOI consisted of maintained industrial development, meadow right-of-way, and forest. Four wetlands and one stream were delineated within the AOI (Figure 3). Photographs are included in Appendix A. Wetland Determination Data Forms and Stream Data Forms are provided in Appendices C and D, respectively.

CEC used the Antecedent Precipitation Tool (APT) to assess the climatic conditions at the time of the field delineation. The APT compares antecedent or recent rainfall conditions for this location versus the range of normal rainfall conditions that occurred during the preceding 30 years. The APT tool evaluates normal precipitation conditions, assesses the presence of drought conditions, and the approximate dates of wet and dry seasons for a given location. The APT analysis indicated dry conditions were present during the July 2024 delineation, normal conditions were present at the time of the February 2025 field delineation, dry conditions were present during the June 2025 field delineation, and normal conditions were present for the March 2026 field delineation. The results of the APT analyses are included in Appendix E.

3.2.1 Wetland Delineation

Seven wetlands, two of which include multiple parts, were identified within the AOI. In addition, 12 sampling points were taken to document upland habitats within the AOI. Both portions of wetland W004 met the upslope boundary of an existing maintained basin used as a Best Management Practice in stormwater control, as shown in Figure 3. All wetlands are considered under the jurisdiction of the Commonwealth of Pennsylvania.

Table 2. Wetlands Delineated

Wetland Identifier	Area (acres)	Cowardin Classification[1]	Sampling Point
W001A	0.165	PEM	SP-03
W001B	0.006	PEM	SP-03
W002A	0.033	PEM	SP-06
W002B	0.009	PEM	SP-06
W002C	0.027	PEM	SP-06
W003	0.013	PEM	SP-08
W004A	0.053	PEM	SP-12
W004B	0.041	PEM	
W005	0.008	PUB	SP-14
W006	0.019	PEM	SP-16
W007	0.002	PEM	SP-18
Total	0.376		

(1)As interpreted from *USFWS Classification of Wetlands and Deepwater Habitats of the United States.* (1979). Palustrine emergent (PEM). Palustrine Unconsolidated Bottom (PUB).

3.2.2 Stream and Other Waters Delineation

Four intermittent streams and one ephemeral stream were identified within the AOI. The streams are identified as unnamed tributaries to Connoquenessing Creek. Refer to Table 3 for a summary of the streams identified within the AOI. All streams are considered under the jurisdiction of the Commonwealth of Pennsylvania.

Table 3. Streams Delineated

Stream Feature ID	Length (LF) by Stream Classification[1, 2, 3]			Total Length (LF)[2]	Average Ordinary High Water Mark (OHWM) Width (LF)[2]
	EPH	INT	PER		
S001	-	62	-	62	2.0
S002	-	83	-	83	2.0
S003	63	-	-	63	1.0
S004	-	377	-	377	1.5
S005	-	93	-	93	1.0
Total Length				678	

4.0 CONCLUSIONS

CEC conducted a waters delineation within the AOI on July 8-9, 2024, February 26 and June 30, 2025, and March 12, 2026. CEC identified the following within the AOI:

- Seven wetlands, totaling approximately 0.376 acres.
- Five streams, totaling approximately 678 linear feet (LF).

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

5.0 REGULATORY CONSIDERATIONS

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

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

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

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

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

In Pennsylvania, the USACE has delegated authority to the PADEP to authorize minor qualifying activities through the state-wide Section 404 permit titled PA State Programmatic General Permit 6 (PASPGP-6), with concurrent review by USACE for certain categories of impacts. A Joint Permit Application to PADEP and USACE is typically required for activities with more significant impacts that exceed the thresholds of PA Chapter 105 General Permits and PASPGP-6. In addition to encroachments, permits for discharges to waters, including from construction stormwater runoff or erosion, may be required by the National Pollutant Discharge Elimination System (NPDES) and PA Chapter 102 regulations.

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

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

6.0 LEVEL OF CARE

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

Report Prepared By:



3/17/2026

Alexandrea Casile — Date
Assistant Project Manager
Civil & Environmental Consultants, Inc.

Report Reviewed By:



3/17/2026

Gretchen Addington — Date
Project Manager
Civil & Environmental Consultants, Inc.

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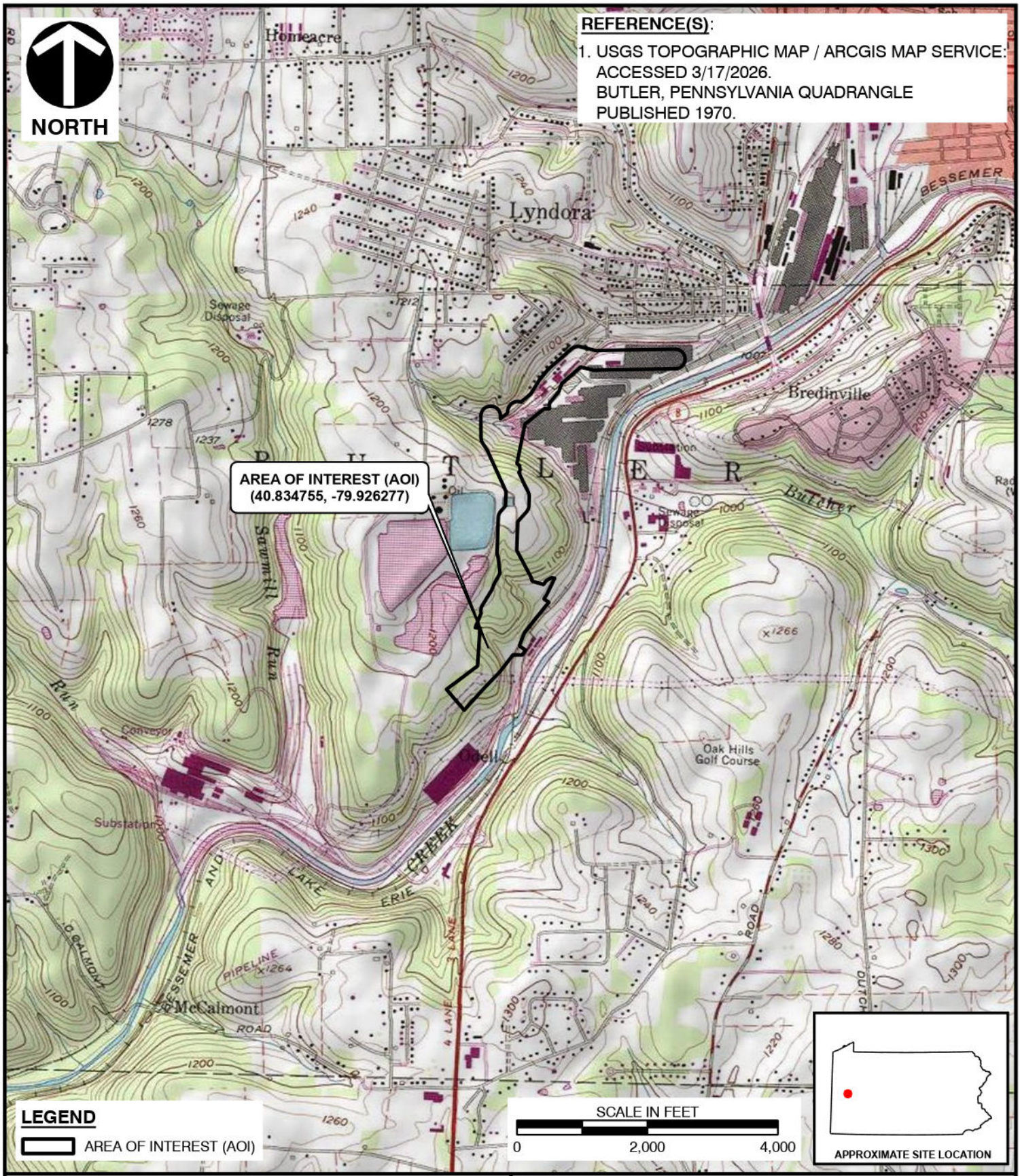
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FIGURES



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CLEVELAND CLIFFS STEEL CORPORATION
BUTLER WORKS STEEL
SLAB IRF UPGRADE PROJECT
BUTLER COUNTY, PENNSYLVANIA

SITE LOCATION MAP

DRAWN BY:	SRS	CHECKED BY:	GAA	APPROVED BY:	ETM*	FIGURE NO:	1
DATE:	3/17/2026	SCALE:	1"=2,000'	PROJECT NO:	351-030/343-504/344-808		

*Hand Signature on file

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NORTH

Gregden Rd
Colleen St
Armco Dr
Bessemer Ave
Pittsburgh Rd
Connoquenessing Creek
Lake Erie Railroad
Butcher Run
Baltimore and Ohio Railroad
Schaffner Rd
Greater Butler Mart
McDonald's
Super 8
Days Inn
Bean St
Litman Rd
Decatur Dr

L1UBK
R5UBH
PUBH
R3UBH

ErC HaD HaB UeC HaE CIB HaC GpC BrB WaB GoB BxD UgD GoF GoD HaC GoC UaF UeB CIC Dd HgF AE W X A At BuC BxD GpD BuB BuC CoC Ar 8

SCALE IN FEET
0 450 900

REFERENCES

1. ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY, ACCESSED 3/17/2026
2. USFWS NATIONAL WETLANDS INVENTORY (NWI) DATA BY STATE, ACCESSED 3/17/2026.
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4. FEMA D-FIRM NATIONAL FLOOD HAZARD LAYER ACCESSED 3/17/2026.
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LEGEND

- AREA OF INTEREST (AOI)
- SOIL MAP UNIT
- 0.2% ANNUAL CHANCE FLOOD HAZARD
- 1% ANNUAL CHANCE FLOOD HAZARD
- REGULATORY FLOODWAY
- RIVER
- WATERBODY CONNECTOR
- FRESHWATER POND
- LAKE
- RIVERINE
- SOIL MAP UNIT

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BUTLER WORKS STEEL
SLAB IRF UPGRADE PROJECT
BUTLER COUNTY, PENNSYLVANIA

ENVIRONMENTAL DATA REVIEW MAP

DRAWN BY:	SRS	CHECKED BY:	GAA	APPROVED BY:	ETM*	FIGURE NO: 2
DATE:	3/17/2026	SCALE:	1"=450'	PROJECT NO: 351-030/343-504/344-808		

*Hand signature on file

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NORTH

REFERENCES

1. ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY, ACCESSED 3/17/2026

2. PAMAP PROGRAM LIDAR DATA, 10' INTERVAL, 2006.

Alton St
Main St
Pacific St
Division St
Erie St
Lehigh Dr
Kohler Ave
Lyndora
Bessemer Ave
Armco Dr
Bessemer and Lake Erie Railroad
Connoquenessing Creek
William Flynn Hwy
Pittsburgh Rd
Greater Butler Mart
Greater Butler Shopping Center
McDonald's

SCALE IN FEET
0 225 450

LEGEND

- AREA OF INTEREST (AOI)
- INDEX CONTOUR - 10 FT. INTERVAL
- AREA OF INTEREST (AOI)

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Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324
www.cecinc.com

CLEVELAND CLIFFS STEEL CORPORATION
BUTLER WORKS STEEL
SLAB IRF UPGRADE PROJECT
BUTLER COUNTY, PENNSYLVANIA

WATERS DELINEATION MAP

DRAWN BY:	SRS	CHECKED BY:	GAA	APPROVED BY:	ETM*	FIGURE NO:	3A
DATE:	3/17/2026	SCALE:	1"=225'	PROJECT NO: 351-030/343-504/344-808			

*Hand signature on file

NORTH

REFERENCES

1. ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY, ACCESSED 3/17/2026

2. PAMAP PROGRAM LIDAR DATA, 10' INTERVAL, 2006.

Zimboly Rd
Gregden Rd
Steelton Ave
Mellon St
Colleen St
Beck Rd
Bessemer Ave
Raffner Rd

SP-07
W002C
S004
W002B
SP-08
W003
W002A
SP-09
SP-06
SP-10
SP-01

SCALE IN FEET
0 225 450

LEGEND

- AREA OF INTEREST (AOI)
- SAMPLING POINT
- WETLAND - PEM
- CULVERT LINE
- INTERMITTENT STREAM
- INDEX CONTOUR - 10 FT. INTERVAL
- AREA OF INTEREST (AOI)

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WATERS DELINEATION MAP

DRAWN BY:	SRS	CHECKED BY:	GAA	APPROVED BY:	ETM*	FIGURE NO:	3B
DATE:	3/17/2026	SCALE:	1"=225'	PROJECT NO: 351-030/343-504/344-808			

*Hand signature on file

\\cecinc.com\global\Projects\350-000\351-030\-GIS\Maps\EC01_Butler_Works_Delineation\351030_EC01_Butler_Works_Delineation.aprx 3/17/2026 11:21 AM (ssmall)

NORTH

REFERENCES

1. ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY, ACCESSED 3/17/2026

2. PAMAP PROGRAM LIDAR DATA, 10' INTERVAL, 2006.

SP-02
Ditch-01
S003
S003
W001B
SP-03
SP-11
W001A
S001
SP-05
Ditch-04
Constructed Rip-Rap
W004B
Outlet
W004A
SP-12
SP-13
Ditch-02
SP-14
SP-15
SP-18
W005
SP-19
W007
S005
SP-16
SP-17
W006
Ditch-03
Ditch-03
SP-20
SP-21
Bessemer and Lake Erie Railroad
Baltimore and Ohio Railroad
William Flynn Hwy
Pittsburgh Rd

SCALE IN FEET
0 225 450

LEGEND

- AREA OF INTEREST (AOI)
- SAMPLING POINT
- EXISTING CULVERT
- OPEN WATER
- WETLAND - PEM
- WETLAND - PUB
- CULVERT LINE
- DITCH
- RIP-RAP CONSTRUCTED FEATURE
- OPEN BOUNDARY
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- INDEX CONTOUR - 10 FT. INTERVAL
- MAINTAINED BASIN BMP
- AREA OF INTEREST (AOI)

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BUTLER WORKS STEEL
SLAB IRF UPGRADE PROJECT
BUTLER COUNTY, PENNSYLVANIA

WATERS DELINEATION MAP

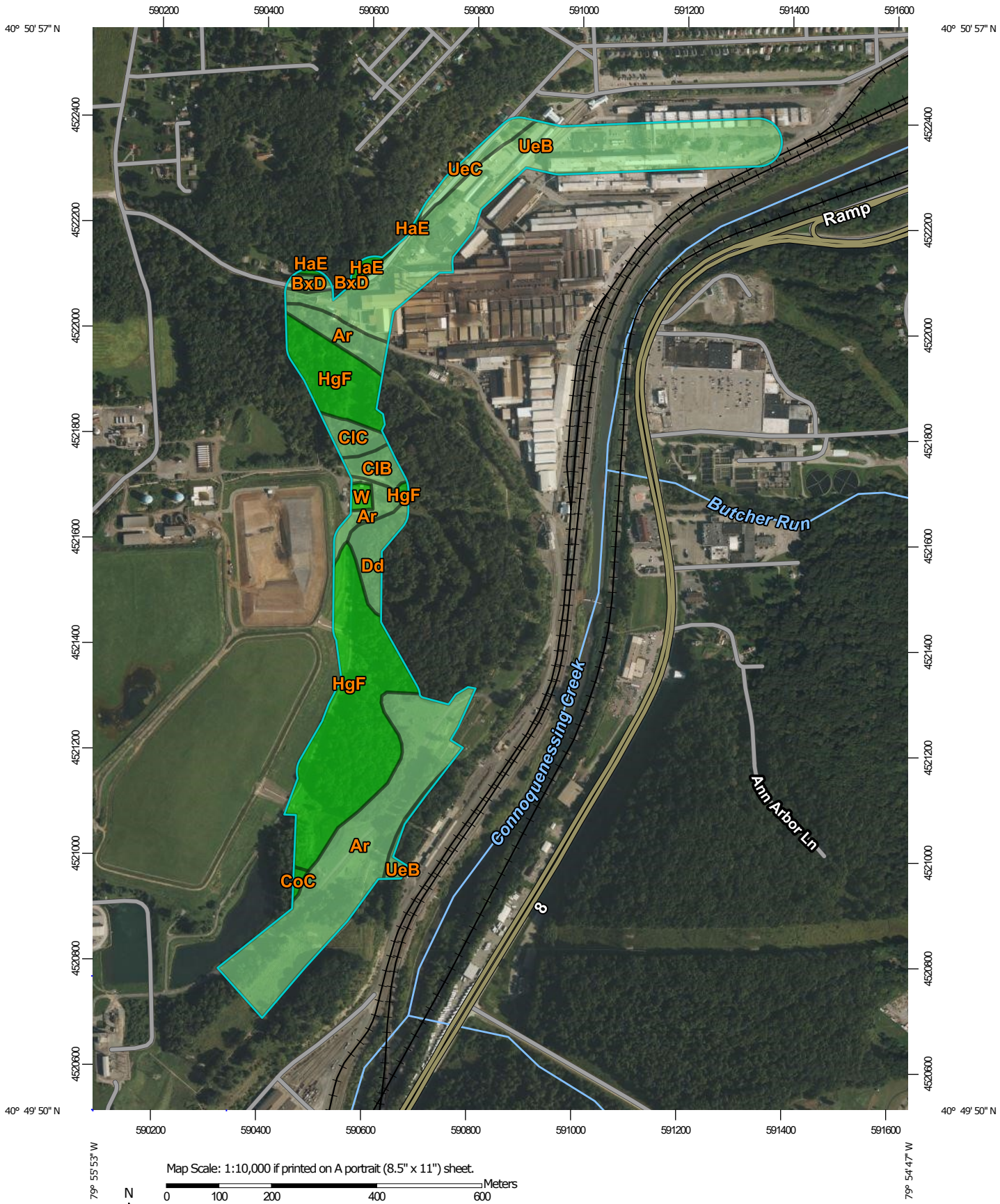
DRAWN BY:	SRS	CHECKED BY:	GAA	APPROVED BY:	ETM*	FIGURE NO:	3C
DATE:	3/17/2026	SCALE:	1"=225'	PROJECT NO: 351-030/343-504/344-808			

*Hand signature on file

APPENDIX A

SOIL INFORMATION

Hydric Rating by Map Unit—Butler County, Pennsylvania
(344-808 Soils Report)



Map Scale: 1:10,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Butler County, Pennsylvania
Survey Area Data: Version 20, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 11, 2021—Nov 16, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ar	Arents-Urban land complex	5	21.8	29.1%
BxD	Buchanan loam, 8 to 25 percent slopes, extremely stony	10	0.6	0.8%
ClB	Cavode silt loam, 3 to 8 percent slopes	5	1.5	1.9%
ClC	Cavode silt loam, 8 to 15 percent slopes	5	1.5	2.0%
CoC	Cookport loam, 8 to 15 percent slopes	0	0.2	0.3%
Dd	Dumps, industrial waste	2	2.5	3.3%
HaE	Hazleton channery loam, 25 to 35 percent slopes	0	0.5	0.7%
HgF	Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony	0	22.1	29.4%
UeB	Urban land-Ernest complex, 0 to 8 percent slopes	2	22.1	29.4%
UeC	Urban land-Ernest complex, 8 to 15 percent slopes	2	1.8	2.3%
W	Water	0	0.5	0.7%
Totals for Area of Interest			**75.0**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

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

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

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

References:

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

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

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

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

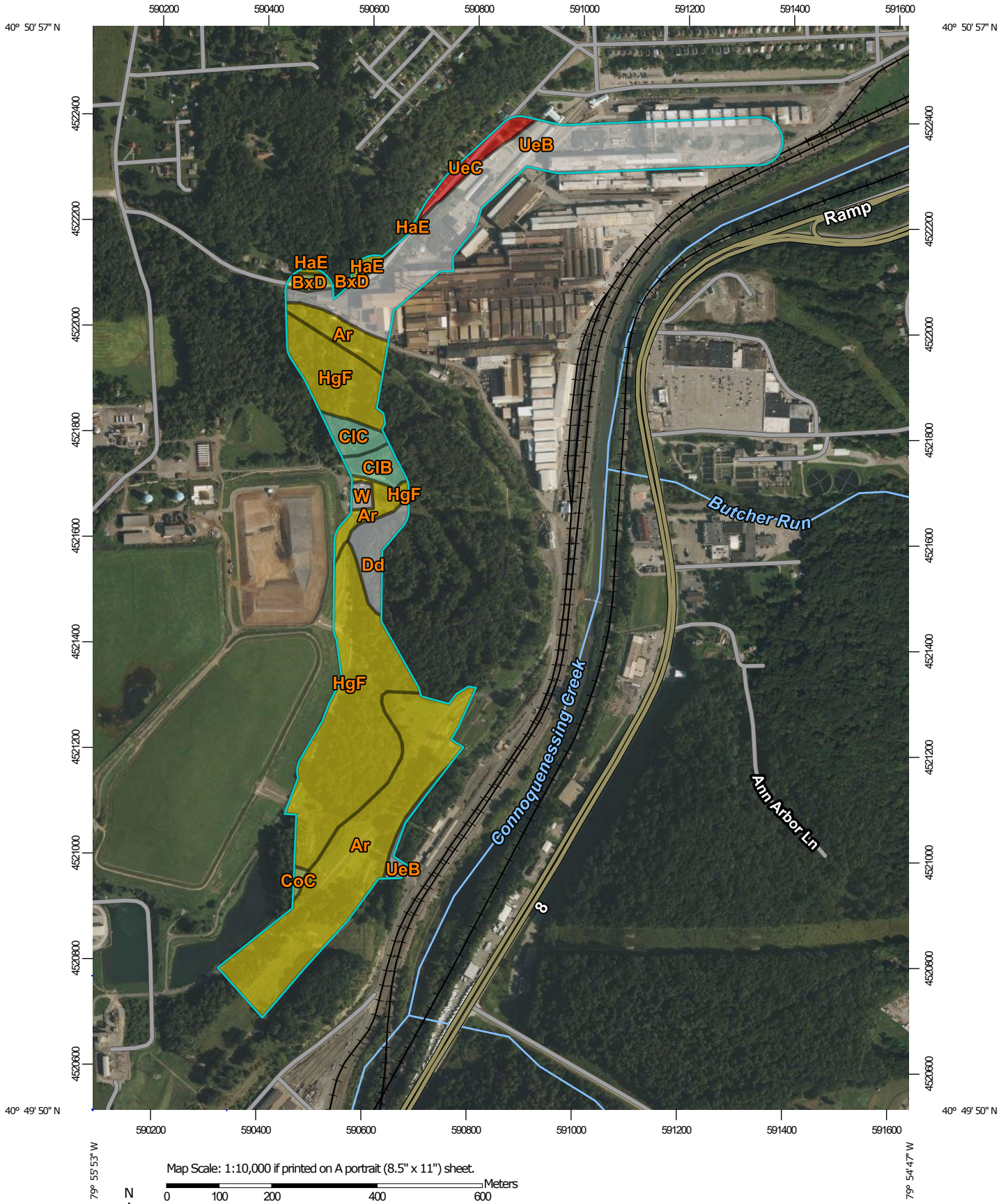
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower



Map Scale: 1:10,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Lines

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Points

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Butler County, Pennsylvania
Survey Area Data: Version 20, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 11, 2021—Nov 16, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Drainage Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ar	Arents-Urban land complex	Well drained	21.8	29.1%
BxD	Buchanan loam, 8 to 25 percent slopes, extremely stony	Moderately well drained	0.6	0.8%
ClB	Cavode silt loam, 3 to 8 percent slopes	Somewhat poorly drained	1.5	1.9%
ClC	Cavode silt loam, 8 to 15 percent slopes	Somewhat poorly drained	1.5	2.0%
CoC	Cookport loam, 8 to 15 percent slopes	Moderately well drained	0.2	0.3%
Dd	Dumps, industrial waste		2.5	3.3%
HaE	Hazleton channery loam, 25 to 35 percent slopes	Well drained	0.5	0.7%
HgF	Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony	Well drained	22.1	29.4%
UeB	Urban land-Ernest complex, 0 to 8 percent slopes		22.1	29.4%
UeC	Urban land-Ernest complex, 8 to 15 percent slopes	Excessively drained	1.8	2.3%
W	Water		0.5	0.7%
Totals for Area of Interest			**75.0**	**100.0%**

Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B

PHOTOGRAPHS



1. Sample Point SP-01, Upland
Facing North



2. Sample Point SP-02, Upland
Facing Southwest



3. Sample Point SP-03, W001A
Facing South



4. W001A (PEM) Overview
Facing Northwest



5. W001B (PEM) Overview
Facing Southeast

Photo not available

6. Sample Point SP-04, Upland

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Phone: (800) 365-2324
www.cecinc.com

Cleveland Cliffs Steel Corporation
Butler Works Furnace Upgrade Project
343-504.0004, 344-808.6000, 351-030.0001

Photographs Taken: July 8-9, 2024



7. Sample Point SP-05, Upland
Facing North



8. Sample Point SP-06, W002A
Facing South



9. W002A (PEM) Overview
Facing Southeast



10. W002B (PEM) Overview
Facing Northwest



11. W002C (PEM) Overview
Facing Southwest



12. Sample Point SP-07, Upland
Facing Southwest

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Photographs Taken: July 8-9, 2024



13. Sample Point SP-08, W003
Facing East



14. W003 (PEM) Overview
Facing Northeast



15. Sample Point SP-09, Upland
Facing West



16. Sample Point SP-10, Upland
Facing East



17. Stream S001 (INT)
Facing Downstream



18. Stream S001 (INT)
Facing Upstream

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Photographs Taken: July 8-9, 2024



19. Stream S002 (INT)
Facing Downstream



20. Stream S002 (INT)
Facing Upstream



21. Stream S003 (EPH)
Facing Downstream



22. Stream S003 (EPH)
Facing Upstream



23. Stream S004 (INT)
Facing Downstream



24. Stream S004 (INT)
Facing Upstream

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Photographs Taken: July 8-9, 2024



25. Sample Point SP-11, Upland
Facing South



26. Sample Point SP-12, W004A
Facing Northeast



27. W004A (PEM) Overview
Facing Northeast



28. Sample Point SP-13, Upland
Facing North



29. Sample Point SP-14, W005
Facing South



30. W005 (PUB) Overview
Facing North

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343-504.0004, 344-808.6000, 351-030.0001

Photographs Taken: February 26, 2025



31. Sample Point SP-15, Upland
Facing Southwest



32. Sample Point SP-16, W006
Facing Northwest



33. W006 (PEM) Overview
Facing Northeast



34. Sample Point SP-17, Upland
Facing Southwest



35. Sample Point SP-18, W007
Facing West



36. W007 (PEM) Overview
Facing East

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343-504.0004, 344-808.6000, 351-030.0001

Photographs Taken: February 26, 2025



37. Sample Point SP-19, Upland
Facing East



38. Stream S005 (INT)
Facing Upstream



39. Stream S005 (INT)
Facing Downstream



40. Sample Point SP-20, Upland
Facing East



41. Sample Point SP-21, Upland
Facing West

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343-504.0004, 344-808.6000, 351-030.0001

Photographs Taken: February 26, June 30, 2025, March 12, 2026

APPENDIX C

WETLAND DETERMINATION DATA SHEETS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/08/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-01

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N Lat: 40.840725 Long: -79.924552 Datum: NAD83 (2011)

Soil Map Unit Name: Dumps, industrial waste; Dd NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point located in concave upland swale.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-01

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	8	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	8 = Total Cover		
50% of total cover: 4	20% of total cover: 1.6		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Berberis thunbergii	15	Y	FACU
2. Cornus florida	10	Y	FACU
3. Rosa multiflora	10	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft radius)			
1. Glechoma hederacea	10	Y	FACU
2. Microstegium vimineum	5	Y	FAC
3. Persicaria virginiana	5	Y	FAC
4. Oxalis stricta	5	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: SP-01

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

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

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/08/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-02

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N Lat: 40.839670 Long: -79.925476 Datum: NAD83 (2011)

Soil Map Unit Name: ~~HnF~~ Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point is located in concave upland swale.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-02

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	10	Y	FACU
2. Ulmus americana	5	Y	FACW
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Berberis thunbergii	25	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		

Herb Stratum (Plot size: 5 ft radius)			
1. Urtica dioica	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Woody Vine Stratum (Plot size: 30 ft radius)			
1. Lonicera japonica	10	Y	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-02

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 3/2	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal at approximately 8 inches due to rocky fill material.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Buter County Sampling Date: 07/08/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-03

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N Lat: 40.837971 Long: -79.925044 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; HgF NWI classification: None

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

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

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

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

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

Remarks:

Wetland W001 is a PEM wetland located in a concave floodplain where S001 and S002 lose bed and banks in wetland.

Wetland ID: W001; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 1
Water Table Present?	Yes ☐	No ☑	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ☐	No ☑	Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Surface water is located in small concave areas throughout wetland.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-03

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Rosa multiflora	5	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft radius)			
1. Myosoton aquaticum	30	Y	FACW
2. Urtica dioica	15	Y	FACU
3. Verbesina alternifolia	10	Y	FAC
4. Carex vulpinoidea	10	Y	OBL
5. Onoclea sensibilis	10	Y	FACW
6. Leersia oryzoides	10	Y	OBL
7. Impatiens capensis	10	Y	FACW
8. Glyceria striata	5	N	OBL
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL Sampling Point: SP-03

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	95	5YR 4/6	5	C	PL,M	Loam/Clayey	
4-10	2.5Y 5/1	95	7.5YR 5/8	5	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: Shallow aquitard

Depth (inches): 10

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal at approximately 10 inches due to a shallow aquitard.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/08/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-04

Investigator(s): AFG/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.836210 Long: -79.926535 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; HgF NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point located on hillslope adjacent to retention pond outside of boundary.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-04

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	5	Y	FACU
2. Acer saccharum	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. Phragmites australis	60	Y	FACW
2. Microstegium vimineum	15	N	FAC
3. Persicaria virginiana	10	N	FAC
4. Dichanthelium clandestinum	10	N	FAC
5. Toxicodendron radicans	5	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

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

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL Sampling Point: SP-04

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

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

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal at appointmenly 4 inches due to rocky fill material

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/08/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-05

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N Lat: 40.837057 Long: -79.924446 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point is located in a concave upland swale adjacent to W001A.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-05

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	10	Y	FACU
2. Hamamelis virginiana	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Berberis thunbergii	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft radius)			
1. Urtica dioica	30	Y	FACU
2. Potentilla simplex	10	Y	FACU
3. Alliaria petiolata	5	N	FACU
4. Verbesina alternifolia	5	N	FAC
5. Oxalis stricta	5	N	FACU
6. Vernonia angustifolia	5	N	FACU
7. Parathelypteris noveboracensis	5	N	FAC
8.			
9.			
10.			
11.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. Celastrus orbiculatus	10	Y	FACU
2. Vitis aestivalis	5	Y	FACU
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: SP-05

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Loam/Clayey	

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

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal at approximately 6 inches due to rocky fill

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/09/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-06

Investigator(s): AFG/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.842805 Long: -79.926436 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; HgF NWI classification: None

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

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

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

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

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

Remarks:

Wetland W002A is a PEM wetland with multiple pieces. S004 loses and regains bed and banks throughout W002A and W002B.

Wetland ID: W002; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-06

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Rosa multiflora	2	N	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	2 = Total Cover		
50% of total cover: 1	20% of total cover: 0.4		
Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	25	Y	FAC
2. Leersia oryzoides	25	Y	OBL
3. Poa palustris	25	Y	FACW
4. Persicaria sagittata	15	N	OBL
5. Carex vulpinoidea	10	N	OBL
6. Agrimonia parviflora	5	N	FACW
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.5	20% of total cover: 21		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. Celastrus orbiculatus	2	N	FACU
2.			
3.			
4.			
5.			
	2 = Total Cover		
50% of total cover: 1	20% of total cover: 0.4		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

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

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL

Sampling Point: SP-06

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	2.5YR 2.5/1	100					Mucky Loam/Clay	
2-10	2.5Y 6/1	60	10YR 6/8	40	C	M	Loam/Clayey	
10-18	10YR 3/1	80	2.5YR 3/6	20	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Soils show evidence of past earth disturbance, gravely.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/09/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-07

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N Lat: 40.844096 Long: -79.926194 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point is located in a concave depression adjacent to steel plant.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-07

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

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft radius)			
1. Reynoutria japonica	70	Y	FACU
2. Urtica dioica	15	N	FACU
3. Glyceria striata	10	N	OBL
4. Rumex crispus	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

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

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-07

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	97	10YR 3/4	3	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal at approximately 10 inches due to rocky fill. Soils are very disturbed with rocks and black oily material.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/09/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-08

Investigator(s): AFG/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.843036 Long: -79.925666 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; HgF NWI classification: None

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

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

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

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

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

Remarks:

Wetland W003 is PEM wetland located in a concave depression on a hillslope.

Wetland ID: W003; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-08

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft radius)			
1. Carex lurida	25	Y	OBL
2. Phragmites australis	20	Y	FACW
3. Onoclea sensibilis	15	Y	FACW
4. Microstegium vimineum	10	N	FAC
5. Glyceria striata	10	N	OBL
6. Typha angustifolia	5	N	OBL
7. Juncus effusus	5	N	FACW
8. Persicaria sagittata	5	N	OBL
9. Euthamia graminifolia	5	N	FAC
10. Galium asprellum	2	N	OBL
11. Juncus torreyi	2	N	FACW
	104 = Total Cover		
50% of total cover: 52	20% of total cover: 20.8		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Yes 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL Sampling Point: SP-08

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	2.5Y 2.5/1	95	5YR 4/6	5	C	PL,M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Disturbed soils from ROW activities, gravely.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/09/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-09

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 25-50%

Subregion (LRR or MLRA): LRR N Lat: 40.842991 Long: -79.925862 Datum: NAD83 (2011)

Soil Map Unit Name: HnF Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point is located on a convex hillslope between W002 and W003.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-09

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharum	10	Y	FACU
2. Quercus rubra	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Elaeagnus umbellata	5	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	40	Y	FAC
2. Vernonia angustifolia	15	Y	FACU
3. Berberis thunbergii	10	N	FACU
4. Potentilla simplex	10	N	FACU
5. Toxicodendron radicans	10	N	FAC
6. Viola sororia	10	N	FAC
7. Oxalis stricta	5	N	FACU
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. Lonicera japonica	10	Y	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 17 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-09

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 4/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Shovel refusal at approximately 10 inches due to rocky fill

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 07/09/2024

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-10

Investigator(s): AFG/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Convex Slope (%): 0-2%

Subregion (LRR or MLRA): LRR N Lat: 40.842182 Long: -79.925000 Datum: NAD83 (2011)

Soil Map Unit Name: Cavode silt loam, 8 to 15 percent slopes; CIC NWI classification: None

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

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

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

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

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

Remarks:

Representative upland sample point is located at toe of slope of an old pad in a ROW.

Wetland ID: Upland; Cowardin Class:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-10

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Elaeagnus umbellata	10	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	38	Y	FAC
2. Poa pratensis	17	Y	FACU
3. Dactylis glomerata	15	N	FACU
4. Ageratina altissima	12	N	FACU
5. Securigera varia	5	N	UPL
6. Galium aparine	5	N	FACU
7. Daucus carota	5	N	UPL
8. Asclepias syriaca	3	N	FACU
9. Prunella vulgaris	2	N	FACU
10.			
11.			
	102 = Total Cover		
50% of total cover: 51	20% of total cover: 20.4		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

No 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 5/3	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Disturbed soils. Shovel refusal at approximately 6 inches due to rocky fill.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-11

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.837975 Long: -79.925737 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony NWI classification: None

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

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

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

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

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

Remarks:

Upland sample point located on hill slope terrace adjacent to ditch with rip rap mixed throughout.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

No hydrology observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-11

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

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 5 ft radius)			
1. Microstegium vimineum	35	Y	FAC
2. Dactylis glomerata	30	Y	FACU
3. Phalaris angusta	10	N	FACW
4. Glechoma hederacea	10	N	FACU
5. Panicum virgatum	10	N	FAC
6. Daucus carota	5	N	UPL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-11

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/4	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: Rock fill

Depth (inches): 8

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Rocky fill shovel refusal at approximately 8 inches due to disturbed soils.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-12

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.835619 Long: -79.926913 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony NWI classification: None

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

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

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

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

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

Remarks:

W004 is a PEM wetland located upslope of BMP.

Wetland ID: W004; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 0.5
Water Table Present?	Yes ☑	No ☐	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 0

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Small concave pockets of surface water throughout wetland. Water table and saturation observed to surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-12

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

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Elaeagnus umbellata	5	Y	UPL
2. Acer saccharum	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Herb Stratum (Plot size: 5 ft radius)			
1. Phragmites australis	100	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL Sampling Point: SP-12

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	Gley 1 - N 2.5/_	100					Mucky Loam/Clay	
2-8	2.5Y 6/1	85	10YR 6/8	15	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 8

Hydric Soil Present? Yes ☑ No ☐

Remarks:

shovel refusal at approximately 8 inches due to rock refusal.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-13

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.835560 Long: -79.926970 Datum: NAD83 (2011)

Soil Map Unit Name: Hazleton and Gilpin soils, 25 to 70 percent slopes, extremely stony; HgF NWI classification: None

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

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

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

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

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

Remarks:

Upland sample point located on forested hillslope adjacent to W004.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☐ No ☑ Depth (inches):

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

No hydrology observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-13

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	5	Y	FACU
2. Acer saccharum	5	Y	FACU
3. Carpinus caroliniana	3	Y	FAC
4.			
5.			
6.			
7.			
	13 = Total Cover		
50% of total cover: 6.5	20% of total cover: 2.6		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Berberis thunbergii	15	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Herb Stratum (Plot size: 5 ft radius)			
1. Dactylis glomerata	10	Y	FACU
2. Elymus hystrix	5	Y	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

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

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.67 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

No woody vines were observed within the sample point.

SOIL Sampling Point: SP-13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					Loam/Clayey	
4-16	10YR 6/6	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-14

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.834735 Long: -79.926487 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

W005 is a PUB wetland located adjacent to access road.

Wetland ID: W005; Cowardin Class: PUB

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☑ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 4
Water Table Present?	Yes ☑	No ☐	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 0

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

4 inches of surface water. Water table and saturation observed to surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-14

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

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 5 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

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

No Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

No trees, shrub, herbs, or woody vines rooted within the wetland. Sparsely vegetated concave surface.

SOIL Sampling Point: SP-14

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Muck	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☑ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Shovel refusal at approximately 6 inches due to restrictive rock layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-15

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.834746 Long: -79.926396 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

Upland sample point located adjacent to W005 near access road.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

No hydrology observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-15

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

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Ligustrum obtusifolium	10	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Herb Stratum (Plot size: 5 ft radius)			
1. Dactylis glomerata	20	Y	FACU
2. Artemisia vulgaris	15	Y	UPL
3. Verbesina alternifolia	10	N	FAC
4. Phalaris arundinacea	10	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	55 = Total Cover		

50% of total cover: 27.5 20% of total cover: 11

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-15

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

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

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: Rock fill

Depth (inches): 2

Hydric Soil Present? Yes ☐ No ☑

Remarks:

shovel refusal at approximately 2 inches due to rip rap fill

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-16

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.834308 Long: -79.925993 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

W006 is a PEM wetland located on a forested hillslope.

Wetland ID: W006; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 0.5
Water Table Present?	Yes ☑	No ☐	Depth (inches): 3
Saturation Present? (includes capillary fringe)	Yes ☑	No ☐	Depth (inches): 0

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

Surface water observed in small concave pockets. Water table observed 3 inches below grade. Saturation observed to surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-16

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus tremuloides	3	N	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	3 = Total Cover		
50% of total cover: 1.5	20% of total cover: 0.6		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Berberis thunbergii	15	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft radius)			
1. Symplocarpus foetidus	10	Y	OBL
2. Juncus effusus	5	Y	FACW
3. Scirpus polyphyllus	5	Y	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15.0	x 1 =	15
FACW species	5.0	x 2 =	10
FAC species	3.0	x 3 =	9
FACU species	15.0	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	38.0 (A)		94 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

Yes 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL Sampling Point: SP-16

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					Sandy	Sandy loam
2-16	2.5Y 4/1	90	10YR 6/8	10	C	M	Sandy	Sandy loam

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-17

Investigator(s): AFC/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 25-50%

Subregion (LRR or MLRA): LRR N Lat: 40.834342 Long: -79.925802 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

Upland sample point located on hill slope down slope of W006.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

No hydrology observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-17

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus rubra	10	Y	FACU
2. Cornus florida	5	Y	FACU
3. Acer saccharum	5	Y	FACU
4.			
5.			
6.			
7.			

20 = Total Cover

50% of total cover: 10 20% of total cover: 4

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Berberis thunbergii	30	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

30 = Total Cover

50% of total cover: 15 20% of total cover: 6

Herb Stratum (Plot size: 5 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

_____ = Total Cover

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			

_____ = Total Cover

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-17

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

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

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-18

Investigator(s): AFC/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 25-50%

Subregion (LRR or MLRA): LRR N Lat: 40.834628 Long: -79.925701 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

W007 is a PEM wetland located on a hillslope adjacent to thehead waters of S005.

Wetland ID: W007; Cowardin Class: PEM

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:
Multiple hydrologic indicators observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-18

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Rosa multiflora	5	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft radius)			
1. Phalaris arundinacea	55	Y	FACW
2. Poa palustris	20	Y	FACW
3. Phragmites australis	10	N	FACW
4. Verbesina alternifolia	10	N	FAC
5. Viola sororia	5	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

Yes 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

SOIL Sampling Point: SP-18

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/1	95	5YR 5/6	5	C	PL,M	Loam/Clayey	
4-16	2.5Y 5/1	90	5YR 5/6	10	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler Sampling Date: 02/26/2025

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-19

Investigator(s): AFC/JDP Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 25-50%

Subregion (LRR or MLRA): LRR N Lat: 40.834720 Long: -79.925583 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:

Upland sample point located on hill slope downslope of W007.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☑

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

Remarks:

No hydrology observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-19

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. Rosa multiflora	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft radius)			
1. Verbesina alternifolia	35	Y	FAC
2. Rubus occidentalis	25	Y	UPL
3. Phalaris arundinacea	20	Y	FACW
4. Dactylis glomerata	15	N	FACU
5. Glechoma hederacea	5	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL Sampling Point: SP-19

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

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

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 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 Soils[3]:

- ☐ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 03/12/2026

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-20

Investigator(s): AFC/JDP Section, Township, Range: N/A

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

Subregion (LRR or MLRA): LRR N Lat: 40.833190 Long: -79.928286 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:
Upland sample point located in concave depression adjacent to road. According to the National Water Prediction Service - NOAA the site received approximately 1 inch of precipitation the day of field visit.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	**0.25**
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

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

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

Remarks:
Surface water due to recent rain event.

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

Sampling Point: SP-20

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Berberis thunbergii*	5	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		

Herb Stratum (Plot size: 5 ft radius)			
1. *Elymus virginicus*	45	Y	FACW
2. *Phalaris arundinacea*	35	Y	FACW
3. *Rosa multiflora*	10	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ___ No X

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

SOIL Sampling Point: SP-20

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

Depth (inches)	Matrix Color (Moist)	%	Redox Features Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/3	100					Loam/Clayey	
4-16	2.5Y 6/4	40	7.5YR 5/8	60	C	M	Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ 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 Soils[3]:

- ___ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____ **Hydric Soil Present?** **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Butler Works Furnace Upgrade Project City/County: Butler County Sampling Date: 03/12/2026

Applicant/Owner: Cleveland Cliffs Steel Corporation State: PA Sampling Point: SP-21

Investigator(s): AFC/JDP Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 10-25%

Subregion (LRR or MLRA): LRR N Lat: 40.833021 Long: -79.927315 Datum: NAD83 (2011)

Soil Map Unit Name: Arents-Urban land complex; Ar NWI classification: None

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

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

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

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

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

Remarks:
Representative upland sample point is located on hillslope in right of way.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No **X**	Depth (inches):	**0.25**
Water Table Present?	Yes ____	No **X**	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No **X**	Depth (inches):	____

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

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

Remarks:
No hydrology observed.

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

Sampling Point: SP-21

Tree Stratum Plot size: 30 ft radius

	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum Plot size: 15 ft radius

1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum Plot size: 5 ft radius

1. *Dichanthelium clandestinum*	45	Y	FAC
2. *Elymus canadensis*	20	Y	FACU
3. *Verbesina alternifolia*	15	N	FAC
4. *Glechoma hederacea*	10	N	FACU
5. *Prunella vulgaris*	5	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover:	47.5	20% of total cover:	19

Woody Vine Stratum Plot size: 30 ft radius

1. None			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

No 1 - Rapid Test for Hydrophytic Vegetation

No 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0[1]

4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL Sampling Point: SP-21

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

Depth (inches)	Matrix Color (Moist)	%	Redox Features Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/3	100					Loam/Clayey	
3-16	10YR 5/8	100					Loam/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ 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 Soils[3]:

- ___ 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)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____ **Hydric Soil Present?** **Yes** ___ **No** X

Remarks:

APPENDIX D

STREAM DATA FORM

Stream Data Form

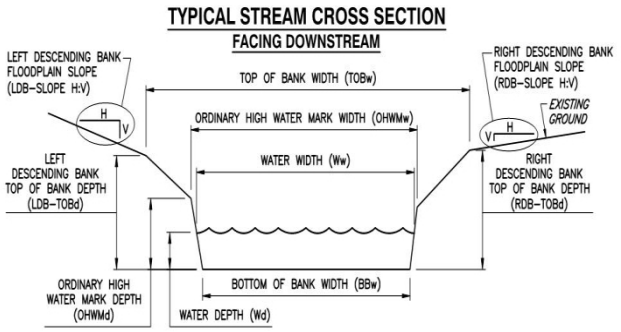
PROJECT #: 343-504 **PROJECT NAME:** Butler Works Furnace Upgrade Project **DATE:** 07/08/24
STREAM ID: S001 **STREAM NAME:** UNT to Connoquenessing Creek **TYPE:** Intermittent
MUNICIPALITY: Butler **COUNTY:** Butler **STATE:** PA **INVESTIGATORS:** AFG/JDP
WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)
Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
S001 starts at a seep and confluences with W001

HYDROLOGICAL CHARACTERISTICS:
Tributary is Natural

STREAM CHANNEL PROPERTIES:

Top of Bank
TOBw: 3 ft **RDB-TOBd:** 1.5 ft **LDB-TOBd:** 1 ft
Bottom of Bank
BBw: 2 ft **BBd:** 4 in
Ordinary High Water Mark
OHWMw: 2 ft **OHWMd:** 3 in
Wetted Channel
Ww: 1 ft **Wd:** 0.5 in
Floodplain Slopes
RDB-Slope H:V 1:1 **LDB-Slope H:V** 1:1



PRIMARY SUBSTRATE:
☑ Clay ☐ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

FLOW CHARACTERISTICS:
☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present
Estimated flow at time of survey: 1 gal/min

BANK EROSION:
RDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
LDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe: Little to no erosion

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks
OHWMs:
☐ Clear, natural line impressed on the bank
☐ Shelving
☑ Vegetation matted down, bent, or absent
☐ Leaf litter disturbed or washed away
☐ Sediment deposition
☑ Water staining
☐ Litter and debris in vegetation above stream
☐ Destruction of terrestrial vegetation
☐ Presence of a wrack line
☑ Sediment sorting
☐ Scour
☐ Other:

WATER QUALITY CHARACTERISTICS:
Adjacent Landuse Characteristics:
☑ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential
Describe: Forested on both banks

Canopy Cover: 75 - 100%

BIOLOGICAL CHARACTERISTICS:
Macroinvertebrates Observed? ☑ Yes ☐ No
Taxa:
☐ Coleoptera ☐ Diptera ☐ Ephemeroptera ☐ Custacea
☐ Megaloptera ☑ Plecoptera ☐ Ondata ☐ Trichoptera
☐ Hemiptera ☐ Decapoda ☐ Gastropoda

Fish or Herptiles observed? ☐ Yes ☑ No **Describe:**

Stream Data Form

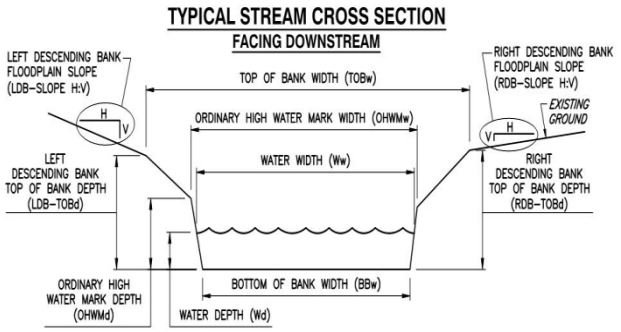
PROJECT #: 343-504 **PROJECT NAME:** Butler Works Furnace Upgrade Project **DATE:** 07/08/24
STREAM ID: S002 **STREAM NAME:** UNT to Connoquenessing Creek **TYPE:** Intermittent
MUNICIPALITY: Butler **COUNTY:** Butler **STATE:** PA **INVESTIGATORS:** AFG/JDP
WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)
Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
S002 confluences with W001A, losing bed and banks in wetland.

HYDROLOGICAL CHARACTERISTICS:
Tributary is Natural

STREAM CHANNEL PROPERTIES:

Top of Bank
TOBw: 2.5 ft **RDB-TOBd:** 6 in **LDB-TOBd:** 6 in
Bottom of Bank
BBw: 2 ft **BBd:** 2 in
Ordinary High Water Mark
OHWMw: 2 ft **OHWMd:** 3 in
Wetted Channel
Ww: 6 in **Wd:** 0.5 in
Floodplain Slopes
RDB-Slope H:V 1:1 **LDB-Slope H:V** 1:1



PRIMARY SUBSTRATE:
☑ Clay ☑ Silt ☑ Sand ☑ Gravel (0.25-2.0in) ☐ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

FLOW CHARACTERISTICS:
☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present
Estimated flow at time of survey: 2 gal/min

BANK EROSION:
RDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
LDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe: Little to no erosion

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks
OHWMs:
☐ Clear, natural line impressed on the bank
☐ Shelving
☑ Vegetation matted down, bent, or absent
☐ Leaf litter disturbed or washed away
☐ Sediment deposition
☑ Water staining
☐ Litter and debris in vegetation above stream
☐ Destruction of terrestrial vegetation
☐ Presence of a wrack line
☑ Sediment sorting
☐ Scour
☐ Other:

WATER QUALITY CHARACTERISTICS:
Adjacent Landuse Characteristics:
☑ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Forested on both banks and loses bed and banks in W001A

Canopy Cover: 75 - 100%

BIOLOGICAL CHARACTERISTICS:
Macroinvertebrates Observed? ☑ Yes ☐ No
Taxa:
☐ Coleoptera ☑ Diptera ☐ Ephemeroptera ☐ Custacea
☐ Megaloptera ☐ Plecoptera ☐ Ondata ☐ Trichoptera
☐ Hemiptera ☐ Decapoda ☐ Gastropoda

Fish or Herptiles observed? ☐ Yes ☑ No **Describe:**

Stream Data Form

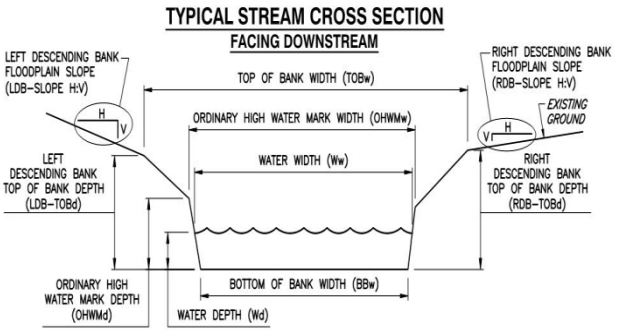
PROJECT #: 343-504 **PROJECT NAME:** Cleveland Cliffs Steel Corporation **DATE:** 07/08/24
STREAM ID: S003 **STREAM NAME:** UNT to Connoquenessing Creek **TYPE:** Ephemeral
MUNICIPALITY: Butler **COUNTY:** Butler **STATE:** PA **INVESTIGATORS:** AFG/JDP
WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)
Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
S003 loses bed and banks in W001B

HYDROLOGICAL CHARACTERISTICS:
Tributary is Natural

STREAM CHANNEL PROPERTIES:

Top of Bank
TOBw: 2 ft **RDB-TOBd:** 1.5 ft **LDB-TOBd:** 2 ft
Bottom of Bank
BBw: 1 ft **BBd:** 4 in
Ordinary High Water Mark
OHWMw: 1 ft **OHWMd:** 4 in
Wetted Channel
Ww: **Wd:**
Floodplain Slopes
RDB-Slope H:V 1:1 **LDB-Slope H:V** 1:1



PRIMARY SUBSTRATE:
☑ Clay ☐ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

FLOW CHARACTERISTICS:
☑ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☐ Flowing water present
Estimated flow at time of survey:

BANK EROSION:
RDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
LDB: ☐ Slight ☑ Moderate ☐ Severe ☐ Very Severe
Describe: Moderate erosion on both banks

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks
OHWMs:
☑ Clear, natural line impressed on the bank
☐ Shelving
☑ Vegetation matted down, bent, or absent
☐ Leaf litter disturbed or washed away
☐ Sediment deposition
☑ Water staining
☐ Litter and debris in vegetation above stream
☐ Destruction of terrestrial vegetation
☐ Presence of a wrack line
☑ Sediment sorting
☐ Scour
☐ Other:

WATER QUALITY CHARACTERISTICS:
Adjacent Landuse Characteristics:
☑ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Forested on both banks

Canopy Cover: 75 - 100%

BIOLOGICAL CHARACTERISTICS:
Macroinvertebrates Observed? ☐ Yes ☑ No
Taxa:
☐ Coleoptera ☐ Diptera ☐ Ephemeroptera ☐ Custacea
☐ Megaloptera ☐ Plecoptera ☐ Ondata ☐ Trichoptera
☐ Hemiptera ☐ Decapoda ☐ Gastropoda

Fish or Herptiles observed? ☐ Yes ☑ No **Describe:**

Stream Data Form

PROJECT #: 343-504 **PROJECT NAME:** Cleveland Cliffs Steel Corporation **DATE:** 07/09/24
STREAM ID: S004 **STREAM NAME:** UNT to Connoquenessing Creek **TYPE:** Intermittent
MUNICIPALITY: Butler **COUNTY:** Butler **STATE:** PA **INVESTIGATORS:** AFG/JDP
WEATHER CONDITIONS: ☑ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)
Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

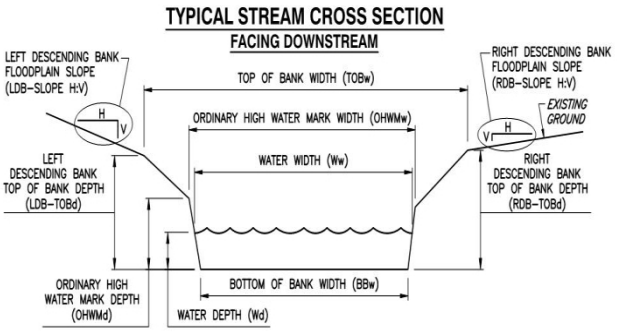
Remarks:
S004 starts at a seep just downslope of pipeline structure. Then crosses another ROW and continues downslope to a drainage basin. S004 runs through pieces of W002A and W002B

Cleveland Cliffs Steel Corporation

HYDROLOGICAL CHARACTERISTICS:
Tributary is Natural

STREAM CHANNEL PROPERTIES:

Top of Bank
TOBw: 15 in **RDB-TOBd:** 6 in **LDB-TOBd:** 6 ft
Bottom of Bank
BBw: 18 in **BBd:** 5 in
Ordinary High Water Mark
OHWMw: 1.5 ft **OHWMd:** 3 in
Wetted Channel
Ww: 8 in **Wd:** 0.5 in
Floodplain Slopes
RDB-Slope H:V 1:1 **LDB-Slope H:V** 1:1



PRIMARY SUBSTRATE:
☑ Clay ☐ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☐ Muck ☐ Vegetation ☐ Artificial

FLOW CHARACTERISTICS:
☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present
Estimated flow at time of survey: 2 gal/min

BANK EROSION:
RDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
LDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe: Little to no erosion

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks
OHWMs:
☐ Clear, natural line impressed on the bank
☐ Shelving
☑ Vegetation matted down, bent, or absent
☑ Leaf litter disturbed or washed away
☐ Sediment deposition
☑ Water staining
☐ Litter and debris in vegetation above stream
☐ Destruction of terrestrial vegetation
☐ Presence of a wrack line
☑ Sediment sorting
☐ Scour
☐ Other:

WATER QUALITY CHARACTERISTICS:
Adjacent Landuse Characteristics:
☑ Forested ☐ Open Field ☐ Farmland ☑ Wetland ☐ Mixed-Use
☑ Industrial ☐ Mining ☐ Residential
Describe: Forested on both banks, crosses ROW
Canopy Cover: 50 - 74%

BIOLOGICAL CHARACTERISTICS:
Macroinvertebrates Observed? ☑ Yes ☐ No
Taxa:
☐ Coleoptera ☐ Diptera ☐ Ephemeroptera ☐ Custacea
☐ Megaloptera ☐ Plecoptera ☐ Ondata ☑ Trichoptera
☐ Hemiptera ☐ Decapoda ☐ Gastropoda

Fish or Herptiles observed? ☐ Yes ☑ No **Describe:**

Stream Data Form

PROJECT #: 351-030 **PROJECT NAME:** Cleveland Cliffs Steel Corporation **DATE:** 02/26/25

STREAM ID: S005 **STREAM NAME:** UNT to Connequenessing Creek **TYPE:** Intermittent

MUNICIPALITY: Butler **COUNTY:** Butler **STATE:** PA **INVESTIGATORS:** AFC/JDP

WEATHER CONDITIONS: ☐ Sunny ☑ Partly Cloudy ☐ Cloudy ☐ Rain ☐ Other (See Remarks)

Has there been precipitation at the site within the past 5 days? ☑ Yes ☐ No ☐ Unknown

Remarks:
S005 starts at seep upslope and continues out of delineation boundary.

Hydrological Characteristics:

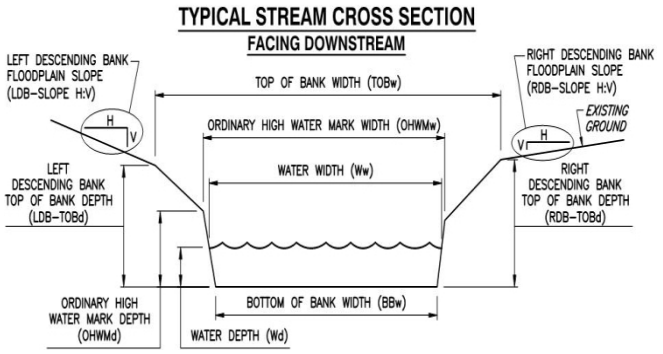
Tributary is Natural

Stream Channel Properties:

Top of Bank

TOBw: 1.5ft

RDB-TOBd: 6in **LDB-TOBd:** 4in



Ordinary High Water Mark (OHWM)

OHWMw: 1 ft **OHWMd:** 2 in

Wetted Channel

Ww: 5in **Wd:** 0.5-1in

Primary Substrate:

☑ Clay ☑ Silt ☐ Sand ☑ Gravel (0.25-2.0in) ☑ Cobble (2-10in)
☐ Boulder (>10in) ☑ Muck ☑ Vegetation ☐ Artificial

Flow Characteristics:

☐ No water; streambed is dry ☐ Streambed is moist ☐ Standing water present ☑ Flowing water present

Bank Erosion:

RDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
LDB: ☑ Slight ☐ Moderate ☐ Severe ☐ Very Severe
Describe: Little to no erosion

The tributary has… ☑ Defined bed and banks ☐ Poorly defined bed and banks

Water Quality Characteristics:

Adjacent Landuse Characteristics:

☑ Forested ☐ Open Field ☐ Farmland ☐ Wetland ☑ Mixed-Use
☐ Industrial ☐ Mining ☐ Residential

Describe: Forested on RDB, shrub /meadow on LDB

Canopy Cover: 50 - 74%

Biological Characteristics:

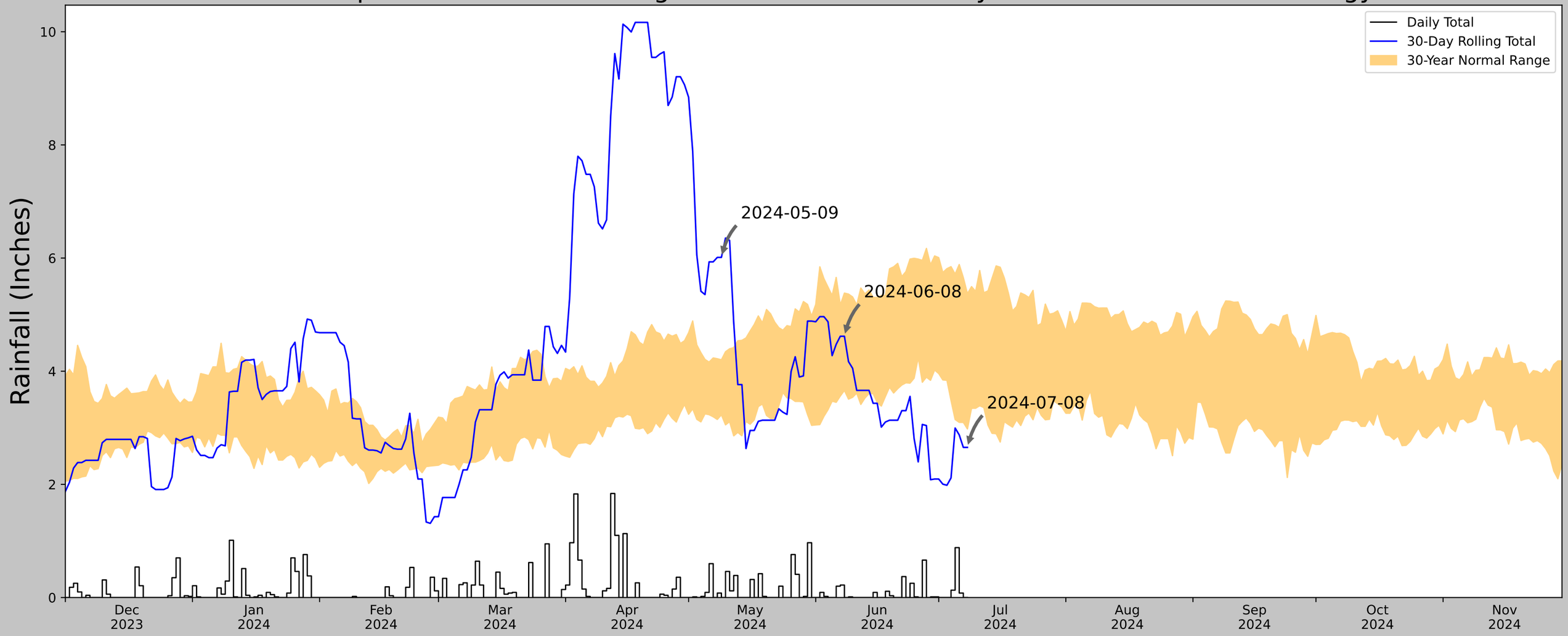
Macroinvertebrates Observed? ☑ Yes ☐ No
Describe: Trichoptera

Fish or Herptiles observed? ☐ Yes ☑ No
Describe:

APPENDIX E

ANTECEDENT PRECIPITATION TOOL ANALYSIS

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



Coordinates	40.84176208, -79.92455086
Observation Date	2024-07-08
Elevation (ft)	1184.771
Drought Index (PDSI)	Mild wetness (2024-06)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-07-08	2.97874	5.370866	2.653543	Dry	1	3	3
2024-06-08	3.660236	5.381103	4.61811	Normal	2	2	4
2024-05-09	3.229921	4.201575	6.011811	Wet	3	1	3
Result							Normal Conditions - 10

US Army Corps of Engineers

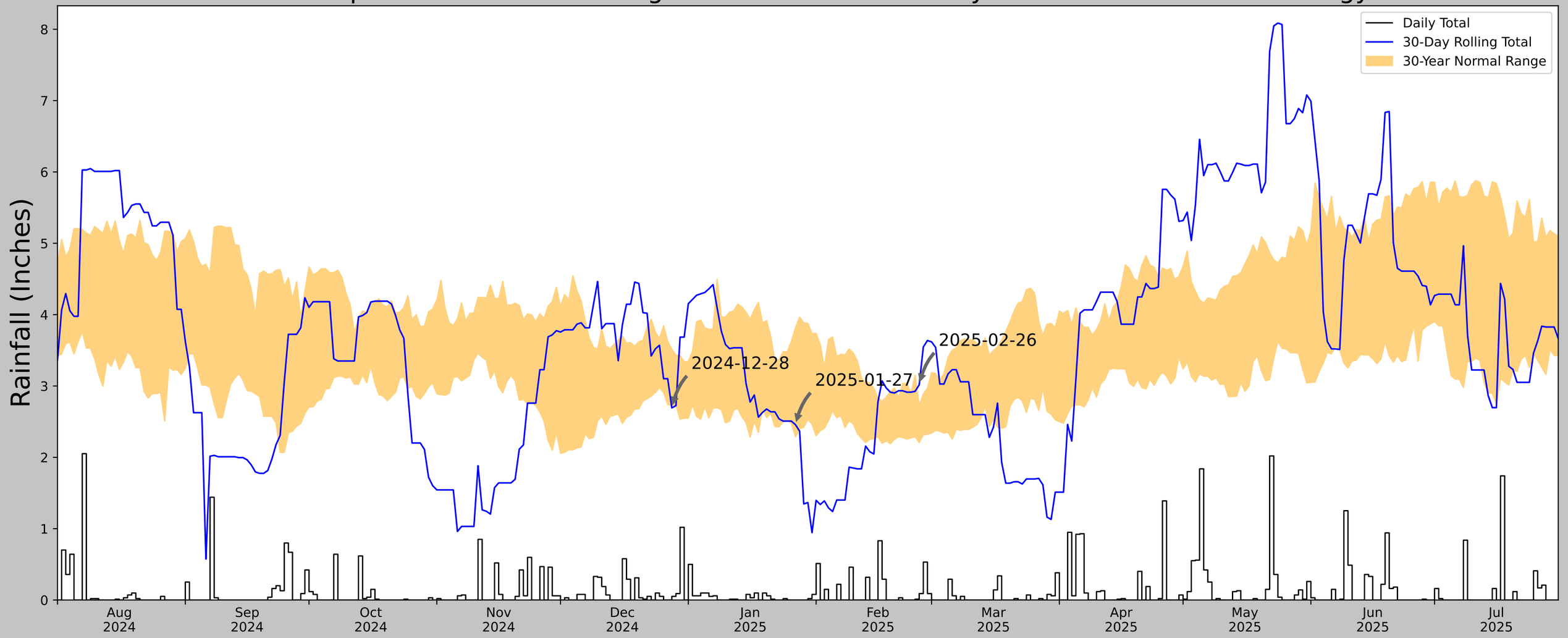
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SLIPPERY ROCK 1 SSW	41.0561, -80.0594	1259.843	16.396	75.072	8.609	11099	82
SLIPPERY ROCK 1.7 SSE	41.0471, -80.0476	1250.984	0.874	8.859	0.401	26	0
SLIPPERY ROCK 5.2 SE	41.0087, -80.0031	1193.898	4.397	65.945	2.269	28	1
HARRISVILLE 1.3 S	41.1174, -80.0133	1315.945	4.869	56.102	2.464	27	0
PORTERSVILLE 5.1 NNW	40.9938, -80.1815	1145.013	7.684	114.83	4.34	11	7
BUTLER 1.9 WSW	40.8557, -79.9314	1265.092	15.373	5.249	6.999	1	0
BUTLER 1.5 W	40.864, -79.926	1277.887	14.987	18.044	7.015	5	0
MERIDIAN 1.4 SW	40.8397, -79.9747	1247.047	15.592	12.796	7.216	1	0
GROVE CITY 7.0 NNE	41.2497, -80.0358	1448.163	13.433	188.32	8.575	28	0
BUTLER CO AP	40.7769, -79.9497	1247.047	20.123	12.796	9.313	2	0
BUTLER 5.5 SSW	40.7855, -79.9233	1242.126	20.001	17.717	9.355	1	0
BUTLER 6.6 SW	40.7707, -79.9385	1229.987	20.705	29.856	9.935	99	0
BUTLER 2 SW	40.8414, -79.9164	1000.0	16.606	259.843	11.788	24	0

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



Coordinates	40.84176, -79.92455
Observation Date	2025-02-26
Elevation (ft)	1184.443
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-02-26	2.206299	2.729134	3.015748	Wet	3	3	9
2025-01-27	2.288976	3.814961	2.456693	Normal	2	2	4
2024-12-28	2.722441	3.516142	2.692913	Dry	1	1	1
Result							Normal Conditions - 14

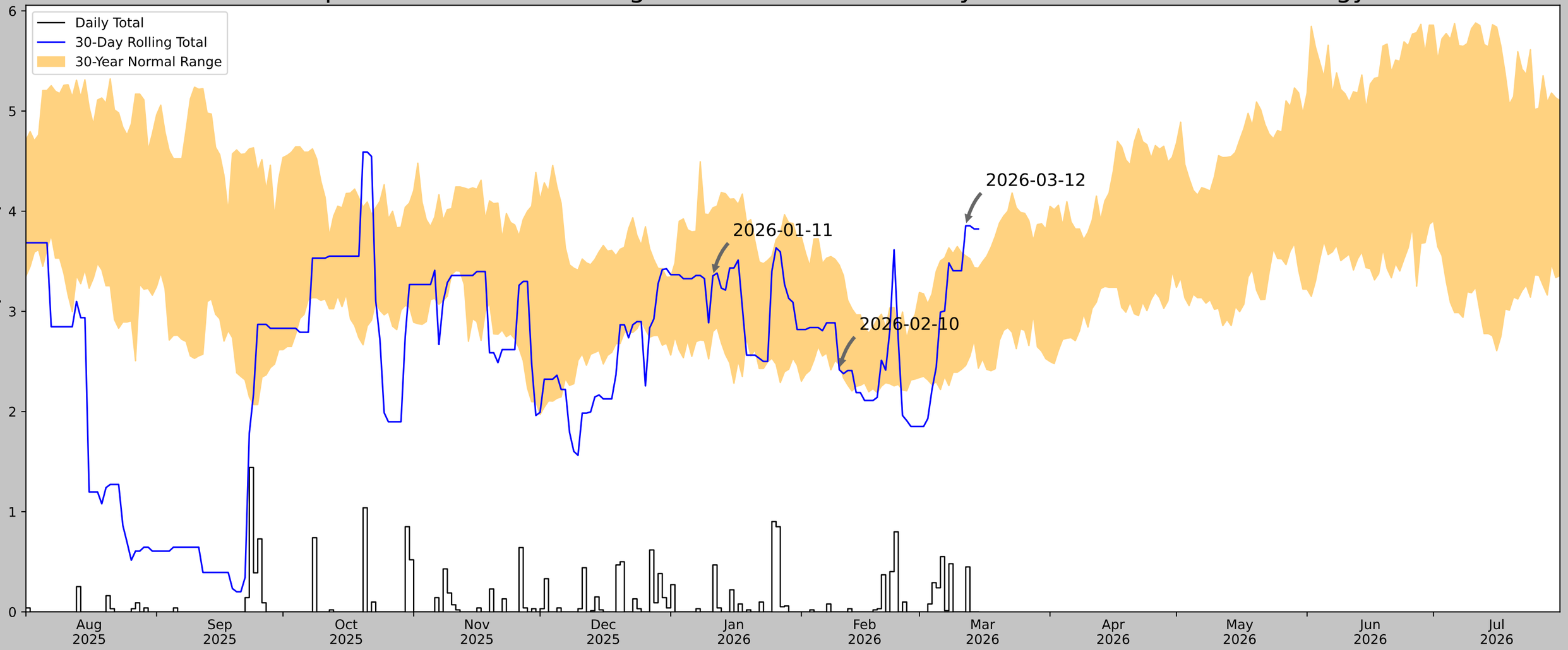
Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

US Army Corps of Engineers.
ERDC

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SLIPPERY ROCK 1 SSW	41.0561, -80.0594	1259.843	16.396	75.4	8.615	11050	84
SLIPPERY ROCK 1.7 SSE	41.0471, -80.0476	1250.984	0.874	8.859	0.401	36	0
SLIPPERY ROCK 5.2 SE	41.0087, -80.0031	1193.898	4.397	65.945	2.269	30	3
HARRISVILLE 1.3 S	41.1174, -80.0133	1315.945	4.869	56.102	2.464	27	0
PORTERSVILLE 5.1 NNW	40.9938, -80.1815	1145.013	7.684	114.83	4.34	31	0
WEST SUNBURY 3.4 S	40.958, -79.9067	1283.137	10.456	23.294	4.949	1	1
BUTLER 6.5 WNW	40.8877, -80.0166	1299.869	11.848	40.026	5.806	8	0
BUTLER 1.9 WSW	40.8557, -79.9314	1265.092	15.373	5.249	6.999	1	0
BUTLER 1.5 W	40.864, -79.926	1277.887	14.987	18.044	7.015	14	2
MERIDIAN 1.4 SW	40.8397, -79.9747	1247.047	15.592	12.796	7.216	1	0
GROVE CITY 7.0 NNE	41.2497, -80.0358	1448.163	13.433	188.32	8.575	28	0
BUTLER CO AP	40.7769, -79.9497	1247.047	20.123	12.796	9.313	2	0
BUTLER 5.5 SSW	40.7855, -79.9233	1242.126	20.001	17.717	9.355	1	0
BUTLER 6.6 SW	40.7707, -79.9385	1229.987	20.705	29.856	9.935	99	0
BUTLER 2 SW	40.8414, -79.9164	1000.0	16.606	259.843	11.788	24	0

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



Coordinates	40.84176, -79.92455
Observation Date	2026-03-12
Elevation (ft)	1184.443
Drought Index (PDSI)	Moderate drought (2026-02)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2026-03-12	2.46063	3.553937	3.854331	Wet	3	3	9
2026-02-10	2.471654	3.462205	2.417323	Dry	1	2	2
2026-01-11	2.798032	4.033465	3.354331	Normal	2	1	2
Result							Normal Conditions - 13

Figures and tables made by the Antecedent Precipitation Tool Version 3.0

US Army Corps of Engineers

ERDC

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SLIPPERY ROCK 1 SSW	41.0561, -80.0594	1259.843	16.396	75.4	8.615	11031	81
SLIPPERY ROCK 1.7 SSE	41.0471, -80.0476	1250.984	0.874	8.859	0.401	36	0
SLIPPERY ROCK 5.2 SE	41.0087, -80.0031	1193.898	4.397	65.945	2.269	40	3
HARRISVILLE 1.3 S	41.1174, -80.0133	1315.945	4.869	56.102	2.464	27	0
PORTERSVILLE 5.1 NNW	40.9938, -80.1815	1145.013	7.684	114.83	4.34	31	0
WEST SUNBURY 3.4 S	40.958, -79.9067	1283.137	10.456	23.294	4.949	6	0
BUTLER 6.5 WNW	40.8877, -80.0166	1299.869	11.848	40.026	5.806	8	0
BUTLER 1.9 WSW	40.8557, -79.9314	1265.092	15.373	5.249	6.999	1	0
BUTLER 1.5 W	40.864, -79.926	1277.887	14.987	18.044	7.015	19	6
MERIDIAN 1.4 SW	40.8397, -79.9747	1247.047	15.592	12.796	7.216	1	0
GROVE CITY 7.0 NNE	41.2497, -80.0358	1448.163	13.433	188.32	8.575	28	0
BUTLER CO AP	40.7769, -79.9497	1247.047	20.123	12.796	9.313	2	0
BUTLER 5.5 SSW	40.7855, -79.9233	1242.126	20.001	17.717	9.355	1	0
BUTLER 6.6 SW	40.7707, -79.9385	1229.987	20.705	29.856	9.935	99	0
BUTLER 2 SW	40.8414, -79.9164	1000.0	16.606	259.843	11.788	23	0

EXHIBIT 6

1. PROJECT INFORMATION

EXHIBIT 6

Project Name: **Cleveland Cliffs Phase 2- Substation and Line Loop**
Date of Review: **2/26/2026 09:58:50 AM**
Project Category: **Energy Storage, Production, and Transfer, Energy Transfer, Power/electric line - New (new location for above/under-ground line)**
Project Area: **9.35 acres**
County(s): **Butler**
Township/Municipality(s): **Butler Township**
ZIP Code:
Quadrangle Name(s): **BUTLER**
Watersheds HUC 8: **Connoquenessing**
Watersheds HUC 12: **Coal Run-Connoquenessing Creek**
Decimal Degrees: **40.835660, -79.924664**
Degrees Minutes Seconds: **40° 50' 8.3769" N, 79° 55' 28.7889" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	**Conservation Measure**	**No Further Review Required, See Agency Comments**
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	**Potential Impact**	**MORE INFORMATION REQUIRED, 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.

Cleveland Cliffs Phase 2- Substation and Line Loop



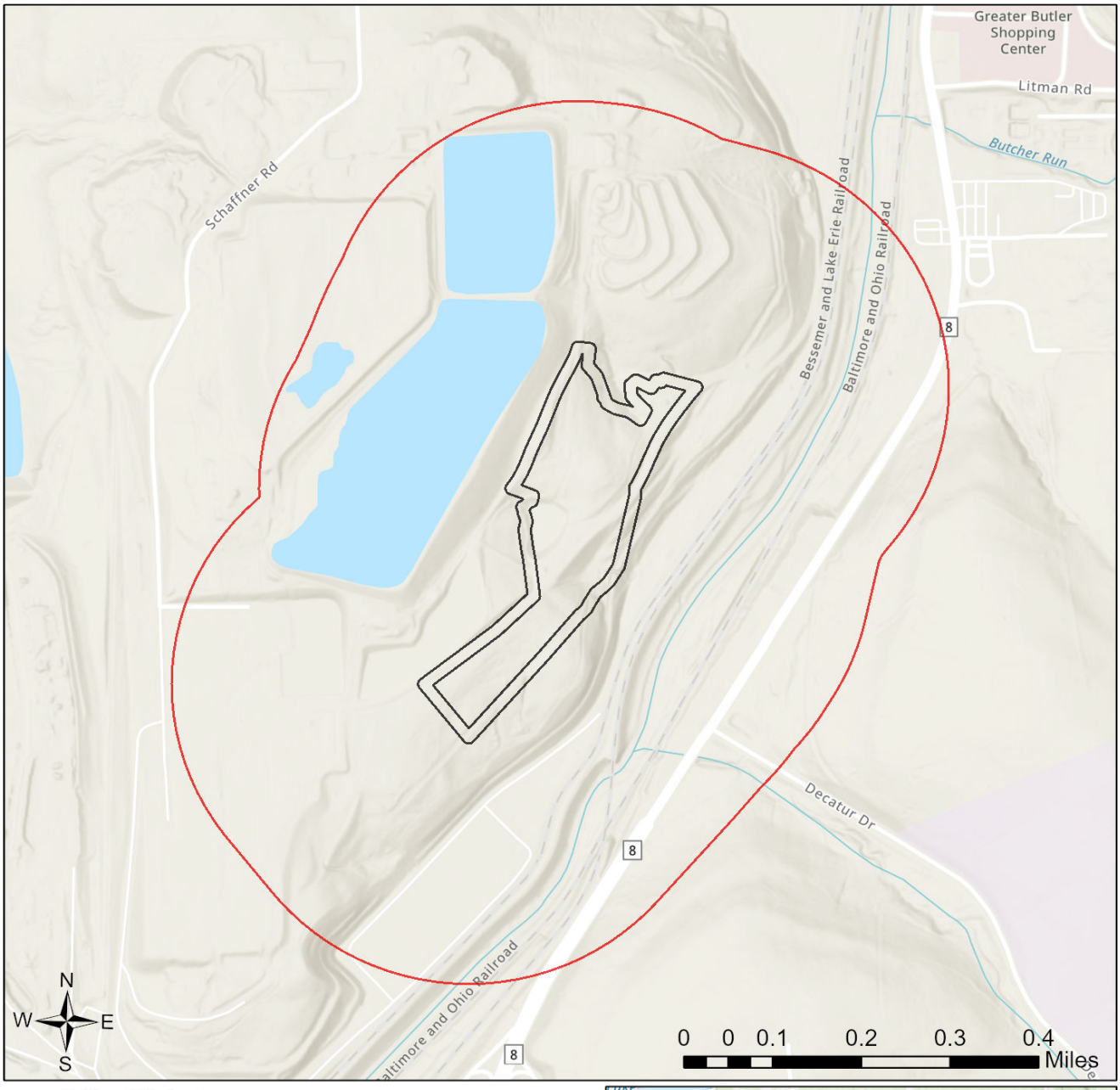
Buffered Project Boundary

Project Boundary



Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

Cleveland Cliffs Phase 2- Substation and Line Loop



Sources: Esri, Vantor, 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: Will the action include disturbance to trees such as tree cutting (or other means of knocking down, or bringing down trees, tree topping. or tree trimming), pesticide/herbicide application or prescribed fire?
Your answer is: Yes

Q2: Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, culverts, or tunnels that could provide habitat for hibernating bats?
Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission
RESPONSE:

Conservation Measure: Potential impacts to state and federally listed species which are under the jurisdiction of both the Pennsylvania Game Commission (PGC) and the U.S. Fish and Wildlife Service may occur as a result of this project. As a result, the PGC defers comments on potential impacts to federally listed species to the U.S. Fish and Wildlife Service. No further coordination with the Pennsylvania Game Commission is required at this time.

PA Department of Conservation and Natural Resources
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service
RESPONSE:

Information Request: Your project is within the range of the federally listed Indiana bat. Enter project information into IPaC (http://ecos.fws.gov/ipac/). Follow the step-by-step process to review this project's potential effect on federally listed species. For step-by-step instructions, please see our Project Review Page (https://www.fws.gov/office/pennsylvania-ecological-services/project-revi...)

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 submit their project using IPaC, following the USFWS Project Submission Instructions. USFWS will not accept or review project materials uploaded via the Conservation Explorer.

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

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name:_____
Company/Business Name:_____
Address:_____
City, State, Zip:_____
Phone:(_____)_____Fax:(_____)_____
Email:_____

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 date

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pennsylvania Ecological Services Field Office
110 Radnor Road Suite 101
State College, PA 16801-7987
Phone: (814) 234-4090 Fax: (814) 234-0748

In Reply Refer To: 02/26/2026 14:43:51 UTC
Project code: 2026-0055335
Project Name: Cleveland Cliffs Phase 2- Substation and Line Loop

Federal Nexus: no
Federal Action Agency (if applicable):

Subject: Technical assistance for 'Cleveland Cliffs Phase 2- Substation and Line Loop'

Dear Clayton Lilly:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on February 26, 2026, for “Cleveland Cliffs Phase 2- Substation and Line Loop” (here forward, Project). This project has been assigned Project Code 2026-0055335 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical

habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Eastern Hellbender (*Cryptobranchus alleganiensis alleganiensis*)	Proposed Endangered	No effect
Eastern Massasauga (=rattlesnake) (*Sistrurus catenatus*)	Threatened	NLAA
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA

Conclusion

Coordination with the Service is complete. This letter serves as technical assistance. All conservation measures should be implemented as proposed. Thank you for considering federally listed species during your project planning.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

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

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

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

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

1. Name

Cleveland Cliffs Phase 2- Substation and Line Loop

2. Description

The following description was provided for the project 'Cleveland Cliffs Phase 2- Substation and Line Loop':

> Extension of two 138kV electric transmission lines into a new substation facility with associated access drives. Construction of a new substation facility pad, to include associated stormwater facilities. The present land use includes forested areas, existing electric transmission rights-of-way (ROW), access roads, and a settling pond for discharges from a historic closed surface lime-stabilized waste impoundment.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.8352242,-79.92572058114916,14z



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

   Yes

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

   Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

   No

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

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

   No

4. Will the proposed project involve the use or storage of herbicide?

   No

5. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in burning of plants) or mowing?

   No

6. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **birds** (e.g., plane-based surveys, new or enlarged communication towers or broadcast towers, high voltage transmission lines, any type of towers with or without guy wires)?

   No

7. Will the proposed project involve demolition, rehabilitation, property elevation, renovation, and/or rebuilding of one or more existing buildings (e.g., residential, commercial and industrial buildings, or utilities)? Note: if project activities include modification of bridges and/or culverts, answer this question "No".

   No

8. Will the proposed project result in **permanent** changes to surface water or groundwater quantity, retention, quality or timing?

   Note: Projects may affect stream flow, surface water, or groundwater through various activities such as; water withdrawal, water recharge, well drilling, infiltration impacts, stormwater outlets, hydropower production, water impoundments, intake structures, stream diversion, mining operations, dams, surface water drainage, or hydroelectric turbines.

   If a project only involves temporary and limited reductions in water that will not displace listed species or significantly alter their water availability (meaning there are no changes to their feeding, breeding, or sheltering), you can answer "No" to this question.

   This question specifically addresses the quantity of water in a stream. Other water quality issues, such as sedimentation and turbidity, will be covered in subsequent questions.

   No

9. Does the project include activity in or within 300 feet of a freshwater wetland?

   Note: This encompasses various project activities related to wetlands, including activities taking place within wetlands, activities occurring within 300 feet of wetlands that could impact them, and water withdrawals and/or discharge of contaminants, even if covered by a National Pollutant Discharge Elimination System (NPDES) permit.

   Examples of such activities include, but are not limited to; wetland draining, ditching, tilling, filling, excavation, stream diversion, impoundments, mowing, grazing vegetation, construction of access roads, creation of detention basins, installation of water or sewer lines, irrigation, increase of impervious surfaces, and application of pesticides, deicing agents, or fertilizers..

   No

10. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream?

    No

11. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

    No

12. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds, fracking fluid) including changes to pH, temperature and/or chemical composition (e.g., choloride, nickel,etc.)?

    Yes

13. Will the proposed project involve the removal of sediment or debris, dredging or in-stream gravel mining where listed species may be present?

    No

14. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

    Note: New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

    No

15. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

    No

16. Will the proposed project involve pesticide use or storage within 200 feet of a karst feature or perennial stream bank where aquatic listed species may be present?

    No

17. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

    No

18. Will the proposed project involve earth moving or other ground disturbance that could cause erosion and sedimentation, and/or contamination within 300 feet of a freshwater wetland or along a stream?

    Note: Answer "Yes" to this question if erosion and sediment control measures will be used.

    No

19. Will the proposed project impact streams or tributaries of streams where aquatic listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal that could result in ground destabilization, and/or change in site topography?

    No

20. Will the proposed project involve vegetation removal within 300 feet of a perennial stream bank where aquatic listed species may be present?

    No

21. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project?

    Note: If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

    Yes

22. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

    No

23. Does the proposed project involve construction or installation of a non-commercial boat dock on a stream?

    No

24. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **bats** (e.g., plane-based surveys, land-based or offshore wind)?

    No

25. Will the proposed project result in permanent changes to water availability or water quality where **bats** may be present?

    No

26. Will the proposed project involve blasting where bats may be present?

    No

27. Will the proposed project involve earth moving or ground disturbance that could cause erosion, sedimentation, and/or contamination within waterbodies potentially used by bats?
    Note: Answer yes if erosion and sediment control measures will be used.

    No

28. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or federal permits be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

    Yes

29. Does the project intersect the Indiana bat species list area?

    Automatically answered
    Yes

30. Are there any caves, mines, or mine features that are suitable for hibernating Indiana bats within the area expected to be impacted by the project?

    No

31. Has a presence/probable absence bat survey (acoustic or mist-net summer active season survey) following the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines been conducted within the action area?

    No

32. Does the project involve removal or modification of a human-made structure (barn, house, or other building) known or suspected to contain roosting bats? **Note:** Most maintenance and general human disturbance in and around structures will not affect Indiana bats as bats roosting in human structures are adjusted to a certain level of routine noise and are generally expected to roost away from areas with excessive disturbance. Answer 'no' if the proposed action will not include disturbance to human structures known or suspected to contain roosting bats or if the structure does not offer suitable roosting habitat for northern long-eared bats. If unsure, answer 'yes.'

    No

33. Does the project include removal/modification of an existing culvert?

    No

34. Does the project include removal/modification of an existing bridge?

    No

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

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter), answer "Yes". If unsure, answer “Yes.” Or refer to Appendix A of the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines for definitions and an assessment form that will assist you in determining if suitable habitat is present within your project's action area. Suitable summer habitat for Indiana bat consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat.

    Yes

36. Will the project include tree cutting, other means of knocking down or bringing down trees, or tree trimming?

    Yes

37. Is the project related to the production of coal, including projects that support the mining of coal, as well as the production and/or distribution of energy produced from coal?

    No

38. Does the project include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property?

    No

39. Does the project intersect with the 0- 9.9% forest density category?

    Automatically answered
    No

40. Does the project intersect with the 10.0- 19.9% forest density category map?

    Automatically answered
    No

41. Does the project intersect with the 20.0- 29.9% forest density category map?

    Automatically answered
    No

42. Does the project intersect with the 30.0-100% forest density category map?

    Automatically answered
    Yes

43. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 40 acres in total extent?

    No

44. Will any tree cutting/trimming or other knocking or bringing down of trees occur during the **Pup Season** for Indiana bats in the action area?

    Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    No

45. Will the project be associated with a timber harvest or timber sale for management or thinning purposes (not including clear cut), including skid trails, roads, landings and/or stream crossings?

    No

46. Will the project result in the use of prescribed fire?

    No

47. Does the project include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?

    Yes

48. When installing new or replacing existing permanent lights, will downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting) be used?

    Yes

49. Will temporary lighting be directed away from suitable Indiana bat habitat during the active season?

    Yes

50. Does the project occur within 0.25 mile of a stream that may host eastern hellbender populations?

    No

51. Will the proposed project result in permanent changes to surface water or groundwater quantity, retention, quality or timing? For example, will the proposed project include any activities that would alter stream flow, surface water or groundwater such as water withdrawal, water recharge, wells, infiltration effects, stormwater outlets, hydropower energy production, impoundments, intake structures, water or stream diversion structures, mining, impoundments, dams, surface water drainage, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer ""No".

    No

52. Does the project include activity in or within 300 feet of a freshwater wetland?
    This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES). Activities include, but are not limited to wetland draining, ditching, tilling, filling, excavation, stream diversion, impoundments, mowing, grazing of vegetation, access roads, detention basins, water or sewer lines, irrigation, increase in impervious surfaces, and application of pesticides, deicing agents, or fertilizers.

    No

53. Will the proposed project involve earth moving or ground disturbance that could cause erosion and sedimentation, and/or contamination within 300 feet of a freshwater wetland?
    Answer “yes” to this question if erosion and sediment control measures will be used.

    No

54. Does the project intersect the Eastern Massasauga Rattlesnake Species List Area?

    Automatically answered

    Yes

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

    No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?

   10

2. Approximately how many total acres of disturbance are within the disturbance/ construction limits of the proposed project?

   22

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

   Cleared electric transmission right of way, access roads, a closed surface impoundment, and forested areas.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Clayton Lilly
Address: 180 White Oaks Blvd.
Address Line 2: Suite 110
City: Bridgeport
State: WV
Zip: 26554
Email clilly@kleinfelder.com
Phone: 3042282529

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pennsylvania Ecological Services Field Office
110 Radnor Road Suite 101
State College, PA 16801-7987
Phone: (814) 234-4090 Fax: (814) 234-0748

In Reply Refer To: 02/26/2026 14:22:27 UTC
Project Code: 2026-0055335
Project Name: Cleveland Cliffs Phase 2- Substation and Line Loop

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries

OFFICIAL SPECIES LIST

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

This species list is provided by:

Pennsylvania Ecological Services Field Office
110 Radnor Road Suite 101
State College, PA 16801-7987
(814) 234-4090

PROJECT SUMMARY

Project Code: 2026-0055335
Project Name: Cleveland Cliffs Phase 2- Substation and Line Loop
Project Type: Transmission Line - Maintenance/Modification - Above Ground
Project Description: Extension of two 138kV electric transmission lines into a new substation facility with associated access drives. Construction of a new substation facility pad, to include associated stormwater facilities. The present land use includes forested areas, existing electric transmission rights-of-way (ROW), access roads, and a settling pond for discharges from a historic closed surface lime-stabilized waste impoundment.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.8352242,-79.92572058114916,14z



Counties: Butler County, Pennsylvania

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

---

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

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2202	Threatened

AMPHIBIANS

NAME	STATUS
Eastern Hellbender *Cryptobranchus alleganiensis alleganiensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9039	Proposed Endangered

INSECTS

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

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Clayton Lilly
Address:	180 White Oaks Blvd.
Address Line 2:	Suite 110
City:	Bridgeport
State:	WV
Zip:	26554
Email	clilly@kleinfelder.com
Phone:	3042282529

EXHIBIT 7

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

EXHIBIT 7

March 18, 2026

Sent Via PA-SHARE

RE: ER Project # 2026PR01164.001, Cleveland Cliffs Phase 2- Substation and Line Loop, Department of Environmental Protection, Butler Township, Butler 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

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 Blair Horton at blahorton@pa.gov.

Archaeological Resources
No Archaeological Concerns - Environmental Review - No Effect - Archaeological

Based on the information received and available in our files, in our opinion, the proposed project should have No Effect on archaeological resources. Should the scope of the project be amended to include additional ground-disturbing activity and/or should you be made aware of historic property concerns regarding archaeological resources, you will need to reinitiate consultation with our office using PA-SHARE.

For questions concerning archaeological resources, please contact Clare Connelly at clconnelly@pa.gov.

Sincerely,

Barbara Frederick
Environmental Review Division Manager

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

JOINT LETTER OF NOTIFICATION OF KEYSTONE APPALACHIAN TRANSMISSION COMPANY AND FIRSTENERGY PENNSYLVANIA ELECTRIC COMPANY FOR APPROVAL OF THE BREDINVILLE-MCCALMONT 138 KILOVOLT TRANSMISSION LINE INTERCONNECTION PROJECT IN BUTLER TOWNSHIP, BUTLER COUNTY, PENNSYLVANIA.	:	**Docket No. _____**

VERIFICATION

I, Nataliya Bryksenkova, state that I am an Engineer for FirstEnergy Service Company; that I am authorized to make this Verification on behalf of Keystone Appalachian Transmission Company and FirstEnergy Pennsylvania Electric Company; 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 5, 2026

Nataliya Bryksenkova