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File #: 214876

November 13, 2025

VIA ELECTRONIC FILING

Matthew Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

Re: Letter of Notification of Mid-Atlantic Interstate Transmission, LLC, For Approval To Loop Approximately 380 Feet Of The Existing Garman-Shawville 115 Kilovolt SM Transmission Line Into The New Chest Creek Substation In Chest Township, Clearfield County, Pennsylvania
Docket No. A-2025-_____

Dear Secretary Homsher:

Enclosed for filing on behalf of Mid-Atlantic Interstate Transmission, LLC ("MAIT") is a Letter of Notification ("LON") requesting approval for the Garman-Shawville 115 Kilovolt ("kV") SM Transmission Line Interconnection Project ("Project"). This LON is being filed pursuant to the Pennsylvania Public Utility Commission's ("Commission") regulations at 52 Pa. Code § 57.72(d). Copies of this LON were served upon the parties as required by 52 Pa. Code § 57.74 on November 7, 2025.

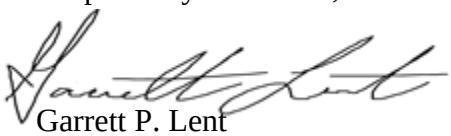
The Company notes that this LON was originally filed and served on November 7, 2025, but that filing was rejected by the Secretary's Bureau due to a concern that the filing contained confidential material. The Company investigated this concern, and confirmed that the original filing did not contain any confidential material. The material in question involved legacy labels applied to non-confidential material, which were inadvertently not removed prior to filing, and one page that referenced confidential material that was not included in the original LON submission. The Company has corrected this issue and requests that the Secretary's Bureau accept the LON as filed herein and which does not contain confidential materials. The substance of the resubmitted LON is unchanged from the original LON filed and served on November 7, 2025.

Subject to the Commission's approval, the Project has a scheduled construction date of December 14, 2025, to meet an in-service date of May 22, 2026. To support this construction timeline, MAIT

respectfully requests the Commission's expedited review and approval for the LON on or before the December 4, 2025, Public Meeting in order to allow construction to commence immediately thereafter.

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

Respectfully submitted,



Garrett P. Lent

GPL/dmc
Enclosure

cc: Deb Backer Bureau of Technical Utilities (*via email; w/attachment*)
Jordan Van Order Bureau of Technical Utilities (*via email; w/attachment*)
Certificate of Service

CERTIFICATE OF SERVICE

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

VIA CERTIFIED MAIL: RETURN RECEIPT REQUESTED

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

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

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

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

PA 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

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

Tim Winters
Clearfield County Commissioner
212 East Locust Street
Clearfield, PA 16830

Dave Glass
Clearfield County Commissioner
212 East Locust Street
Clearfield, PA 16830

Dan Sunderland
Chest Township Chair
2406 McPherron Road
LaJose, PA 15753

Kevin Hutton
Chest Township Supervisor
2406 McPherron Road
LaJose, PA 15753

John Sobel
Clearfield County Commissioner
212 East Locust Street
Clearfield, PA 16830

Jodi Brennan, Director
Clearfield County Planning Commission
212 East Locust Street
Clearfield, PA 16830

Larry Garner
Chest Township Supervisor
2406 McPherron Road
LaJose, PA 15753

Cambria County Conservation and
Recreation Authority
401 Candlelight Drive Suite 225
Ebensburg, Pa 15931

Rock Run Recreation Inc
1228 Saint Lawrence Rd
Patton, Pa 16668

CPV Rogue's Wind LLC
Attn: Sean Finnerty
50 Braintree Hill Office Park, Suite 300
Braintree, Ma 02184

Willie Null, District Manager
Clearfield County Conservation District
6395 Clearfield Woodland Hwy #2
Clearfield, PA 16830

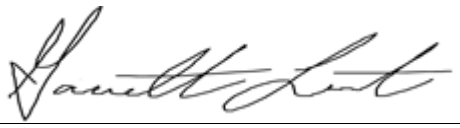
Pennsylvania Department of Conservation
and Natural Resources
400 Market St.
Harrisburg, PA 17105

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, Pennsylvania 16801-4850

Date: November 13, 2025



Garrett P. Lent

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

LETTER OF NOTIFICATION OF MID-ATLANTIC INTERSTATE TRANSMISSION, LLC FOR APPROVAL TO LOOP APPROXIMATELY 380 FEET OF THE EXISTING GARMAN-SHAWVILLE 115 KILOVOLT SM TRANSMISSION LINE INTO THE NEW CHEST CREEK SUBSTATION IN CHEST TOWNSHIP, CLEARFIELD COUNTY, PENNSYLVANIA	**Docket No. _____**

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

Pursuant to 52 Pa. Code §§ 57.72(d)(1)(iii) and (vi), Mid-Atlantic Interstate Transmission, LLC ("MAIT") hereby files this Letter of Notification ("LON") requesting approval from the Pennsylvania Public Utility Commission ("Commission") to create a transmission line loop on the existing Garman-Shawville 115 kilovolt ("kV") SM Transmission Line to the new Chest Creek Substation ("Garman-Shawville 115 kV SM Transmission Line Interconnection Project" or "Project") in Chest Township, Clearfield County, Pennsylvania.

The proposed Garman-Shawville 115 Kilovolt SM Transmission Line Interconnection Project was developed to provide a 115 kV electrical connection to the 109.9-megawatt ("MW") wind generation plant proposed by CPV Rogue's Wind LLC ("CPV Rogue") in Clearfield County, Pennsylvania ("Wind Generation Plant"). To meet the electrical needs of CPV Rogue, MAIT will

construct a line loop from the Garmin–Shawville 115 kV SM Transmission Line into the new Chest Creek 115 kV substation ("Chest Creek Substation"), which is being built by CPV Rogue. Ownership of the Chest Creek Substation will be transferred to MAIT upon completion of the Project. The point of interconnection ("POI") between MAIT and the Wind Generation Plant will be on a dead end structure inside the Chest Creek Substation.

The Project will be constructed in Chest Township, Clearfield County, Pennsylvania. MAIT has provided information regarding this Project to all identified political subdivisions, and none of them have objected to the Project. Subject to the Commission's approval, construction on the Garman-Shawville 115 Kilovolt SM Transmission Line Interconnection Project is scheduled to begin on or about December 14, 2025, to meet an in-service date of May 22, 2026. To support this construction timeline, MAIT respectfully requests expedited review of this Letter of Notification and that the Commission issue its final ruling no later than the public meeting scheduled for December 4, 2025.

In support thereof, MAIT submits as follows:

I. INTRODUCTION

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

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

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

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

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

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

MAIT agrees to accept electronic service in this proceeding.

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

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

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

Exhibit 1: A topographic map depicting the location of the proposed Project;

Exhibit 2: A depiction of the general layout of the Project;

Exhibit 3: A depiction of the general configuration for a 115 kV deadend vertical single pole structure;

Exhibit 4: A depiction of the general configuration for a 115 kV deadend horizontal three pole structure;

Exhibit 5: A copy of the Wetland and Stream Delineation Report prepared by TRC Environmental Corporation ("TRC"), dated September 2021;

Exhibit 6: A copy of the Pennsylvania Natural Diversity Inventory ("PNDI") review dated June 2, 2025, and related agency clearance correspondence; and

Exhibit 7: Copies of the Pennsylvania State Historic Preservation Office clearance letters dated December 20, 2021, and June 23, 2022.

6. This Letter of Notification and accompanying Exhibits, which are incorporated herein by reference, contains 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 115 kV electrical connection to the 109.9-MW Wind Generation Plant proposed by CPV Rogue in Clearfield County, Pennsylvania. To meet the customer's electrical needs, MAIT will construct a line loop from the Garmin–Shawville 115 kV SM Transmission Line into the new Chest Creek Substation.

8. FirstEnergy and PJM Interconnection, LLC's ("PJM") Transmission Planning evaluated the generation interconnection. Results of the FirstEnergy and PJM analyses are documented on the PJM website[1] for queue project AF1-086. This proposed Project was not submitted to the PJM Transmission Expansion Advisory Committee ("TEAC") because it is a network upgrade project.[2] PJM assigned the network upgrade identification numbers n8413 for

[1] PJM - Services Request Status ; af1_086_isa.pdf (pjm.com).
[2] Network upgrade projects are not submitted to the TEAC.

construction of the new 115 kV three breaker ring bus interconnection substation and the 115 kV line loop into the new substation.

1. Existing System

9. The existing Garman-Shawville 115 kV SM Transmission Line utilizes 795 kcmil 26/7 ACSR[3] conductor and two 3/8-7 strand EHS[4] shield wires. The existing structures in the area that is subject to this LON range from approximately 65 to 75 feet tall and are 2-pole wood H-Frames.

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

2. Identification of Need

11. The proposed Project is needed to provide a 115 kV electrical connection to the 109.9-MW Wind Generation Plant proposed by CPV Rogue in Clearfield County, Pennsylvania. To interconnect the proposed Wind Generation Plant and meet the electrical needs of the new customer, MAIT will construct a line loop from the Garmin–Shawville 115 kV SM Transmission Line into the new customer-built Chest Creek Substation.

12. MAIT, as a public utility, has a general right and obligation to serve customers in its service territory, subject to the terms and conditions of its certificate of public convenience. Specifically, under Section 1501 of the Public Utility Code, MAIT:

> shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public.

[3] ACSR stands for aluminum conductor steel reinforced.
[4] EHS stands for extra high strength.

66 Pa.C.S. § 1501 (emphasis added); *see also id*. § 1103(a). Section 2802(12) of the Public Utility Code further emphasizes that "[r]eliable electric service is of the utmost importance to the health, safety and welfare of the citizens of the Commonwealth. Electric industry restructuring should ensure the reliability of the interconnected electric system by maintaining the efficiency of the transmission and distribution system." *Id.* § 2802(12). Pennsylvania appellate courts and the Commission have further confirmed this obligation to serve. *See, e.g., Pa. Gas Co. v. Pub. Serv. Comm'n*, 83 Pa. Super. 557, 565-66 (1924); *Philadelphia Transp. Co. v. Pa. PUC*, 37 A.2d 138, 147 (Pa. Super. 1944); *Application of Leatherstocking Gas Co., LLC, for Approval to Supply Natural Gas Serv. to the Pub. in N. Susquehanna Cnty., in the Twps. of Bridgewater, Forest Lake, Great Bend, Harmony, New Milford, and Oakland, and in the Boroughs of Great Bend, Hallstead, Lanesboro, Montrose, New Milford, Oakland and Susquehanna*, Docket No. A-2011-2275595, 2012 Pa. PUC LEXIS 1391, at *22 (Order entered Aug. 30, 2012).

13. There are no feasible alternatives that were considered when determining the solution for the proposed Project, because the Project is needed to interconnect an existing customer with the electric system. MAIT further notes that the Project does not impact benchmark reliability metrics, and is not related to any load growth which may be anticipated for this area. The new 115 kV three breaker ring bus interconnection substation is necessary to serve CPV Rogue.

B. THE PROPOSED PROJECT

14. In this Project, MAIT proposes to create a transmission line loop on the existing Garman-Shawville 115 kV SM Transmission Line to the new Chest Creek Substation.

15. The proposed transmission line loop will be constructed between existing structures #68 and #69 on the Garman-Shawville 115 kV SM Transmission Line. The transmission line loop

is needed to serve the new Chest Creek Substation. The transmission line loop will be located approximately 0.44 miles west from the existing Westover South Substation and approximately 15.26 miles southeast of the existing Madera Substation.

16. The proposed Project will be located within the existing 100-foot-wide right-of-way ("ROW") and in new 100 foot-wide-ROW on parcels leased by CPV Rogue.[5] All new easements and rights required to accommodate the Project have been secured. The Project is located in Chest Township, Clearfield County, Pennsylvania.

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

18. To construct the proposed 115 kV transmission line loop, two new structures will be installed. As shown in **Exhibit 3,** proposed structure #68A will be a 115 kV deadend vertical single pole direct embedded structure with an approximate above ground height of 70 feet. Proposed structure #68B will be a 115 kV deadend horizontal three pole direct embedded structure with an approximate above ground height of 70 feet, as shown in **Exhibit 4**. These proposed structures will match the approximate above ground height (65-75 feet) of the existing adjacent transmission line structures.

19. The new transmission line loop will utilize approximately 380 feet of new 795 kcmil 26/7 ACSR conductor and 7#8 Alumoweld shield wires.

20. All transmission lines and the Chest Creek Substation will be owned, operated, and maintained by MAIT, however the Project's construction costs will be incurred by CPV Rogue. The estimated transmission line cost is approximately $6,600,000.

[5] CPV Rogue is leasing the parcel indefinitely. As such, MAIT maintains that the Project qualifies for the use of a LON under Section 57.72(d)(1)(iii) of the Commission's regulations.

III. HEALTH AND SAFETY

21. 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.

22. FirstEnergy's design criteria require that 115 kV transmission lines have a designed vertical conductor-to-ground clearance of 26 feet. This design value exceeds the NESC minimum of 20.2 feet by a margin of 5.8 feet. In general, FirstEnergy's clearance criteria exceed the NESC minimums by various margins ranging from two feet to seven feet, depending on the voltage and specific clearance measurement. The transmission line's maximum operating temperature will be 212 degrees Fahrenheit.

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

IV. DESCRIPTION OF RIGHT OF WAY

24. The proposed Project will be located within the existing 100-foot-wide ROW and within a new 100 foot-wide-ROW on parcels leased by CPV Rogue. The Garman-Shawville 115 kV SM Transmission Line will remain on its existing centerline within the ROW.

25. The proposed structures (#68A and #68B) will be installed along the centerline of the existing Garman-Shawville 115 kV SM Transmission Line, within the existing ROW.

26. The existing easements allow for the proposed structure installations. No new structures are proposed to be located on properties that do not currently have a structure. Required easements have been secured to establish a new .27-acre ROW between the existing transmission line and the Chest Creek Substation. No structures will be placed in the new ROW. MAIT will coordinate with all affected landowners for temporary access to support construction as needed.

V. LAND USE AND ENVIRONMENTAL EVALUATION

27. As explained above, construction of the proposed Project will take place entirely within the existing ROW for the existing Garman-Shawville 115 kV SM Transmission Line or on new ROW secured on land leased by CPV Rogue. Therefore, it is anticipated that the proposed Project will have minimal incremental impacts on land use in the area.

28. CPV Rogue's September 2021 Wetland and Other Waters Delineation Report, inclusive of the LON Project Area,[6] was conducted and prepared by TRC and is included as **Exhibit 5**. No stream or wetlands were identified in the Project Area, therefore, there no impacts to streams or wetlands are anticipated. The new structures required by the Project will be placed within existing ROW. Existing access roads will be utilized to the maximum extent practicable and any use of new roads or work areas is expected to be temporary.

29. A PNDI database search was conducted in June 2025, inclusive of the LON Project Area. A copy of the PNDI receipt is included as **Exhibit 6**. The PNDI indicated potential impacts to resources regulated by the PA Game Commission ("PGC"), PA Fish and Boat Commission ("PFBC"), and the United States Fish and Wildlife Service ("USFWS"). The PNDI indicated that

[6] CPV Rogue conducted a number of environmental analyses for its proposed Wind Generation Plant. The area reviewed by those analyses for potential environmental impacts included the area where the Garman-Shawville 115 kV SM Transmission Line Interconnection Project will be located ("LON Project Area").

no further review is required from the PA Department of Conservation and Natural Resources ("PADCNR") if the conservation measure outlined in **Exhibit 6** is followed.

30. The PNDI noted a potential impact to state-listed bat species including the little brown bat (*Myotis lucifugus*), tricolored bat (*Perimyotis subflavus*), and eastern small-footed bat (*Myotis leibii*). In a letter dated July 8, 2025, the PGC concluded impacts to these species are not anticipated if CPV Rogue adheres to agreed upon avoidance and minimization measures, and no further coordination with the PGC is needed. MAIT will also adhere to all agreed upon avoidance and minimization measures during construction of the Project. A copy of the PGC response letter is also provided in **Exhibit 6**.

31. During correspondence with the developer in April – May 2023, the PFBC noted occurrences of timber rattlesnakes (*Crotalus horridus*) in vicinity of the LON Project Area, and habitat assessments completed by the developer's subcontractor in June 2023 confirmed presence of suitable habitat and timber rattlesnakes. On July 20, 2023, the PFBC provided recommendations to avoid impacts to timber rattlesnakes, and on November 22, 2023, CPV Rogue's developer agreed to implement these avoidance measures. Correspondence with the PFBC is provided in **Exhibit 6**. MAIT will also adhere to all avoidance measures during construction of the Project.

32. The LON Project Area is located within the range of the federally endangered northern long-eared bat (*Myotis septentrionalis*) and Indiana bat (*Myotis sodalis*) and the federally proposed endangered tricolored bat. CPV Rogue's developer agreed to implement the USFWS-developed land-based wind energy voluntary operational avoidance guidance and impacts to federally listed or proposed bats were either avoided or considered insignificant or discountable. Tree removal is not anticipated to complete the interconnection Project, therefore, no further

coordination with the USFWS regarding threatened or endangered bat species is required. CPV Rogue's USFWS approval letter is included in **Exhibit 6**.

33. Section 106 initial consultation was prepared by CPV Rogue's developer. In December 2021, the PA State Historic Preservation Office ("SHPO") indicated that the proposed Wind Generation Plant, inclusive of the LON Project Area, will have no effect on archaeological resources. On June 23, 2022, the SHPO determined the Wind Generation Plant, inclusive of the LON Project Area, would have no effect on the identified historic properties. Thus, no further consultation regarding archaeological or architectural resources is necessary. Correspondence from the SHPO is included as **Exhibit 7**.

IV. NOTICE

34. MAIT has provided information regarding the Project to representatives of Chest Township, and Clearfield County. These entities have not objected to the proposed Project. Copies of the Letter of Notification will be served upon all state agencies, federal agencies, county agencies, municipalities, and landowners in accordance with 52 Pa. Code § 57.72(d)(3).

V. LETTER OF NOTIFICATION

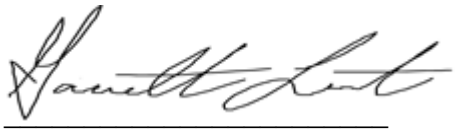
35. MAIT is proceeding by means of a Letter of Notification, instead of a full Application, pursuant to the Commission's regulations at 52 Pa. Code §§ 57.72(d)(1)(iii) and (d)(1)(vi).

36. The proposed Project involves the installation of two transmission line structures on an existing transmission line within an existing transmission line ROW and extending 115 kV conductor to the proposed Chest Creek Substation on ROW located on property being leased by

CPV Rogue indefinitely. As such, the proposed Project qualifies for use of a Letter of Notification because it will be an HV line which is proposed to be located entirely within applicant's existing transmission line right-of-way and the property of the sole customer to be served by the line. *See* 52 Pa. Code § 57.72(d)(1)(iii). In addition, the Project qualifies for a Letter of Notification because it consists of an HV line with a proposed route of 2 miles or less. *See* 52 Pa. Code § 57.72(d)(1)(vi). Specifically, the proposed transmission line loop will be approximately 380 feet long.

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, Mid-Atlantic Interstate Transmission, LLC respectfully requests that the Commission review and approve the proposed Garman-Shawville 115 kV SM Transmission Line Interconnection Project in Chest Township, Clearfield County, Pennsylvania, as explained above and in the Exhibits attached hereto, on or before December 4, 2025.



Tori L. Giesler (ID #207742)
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Fax: (717) 731-1985
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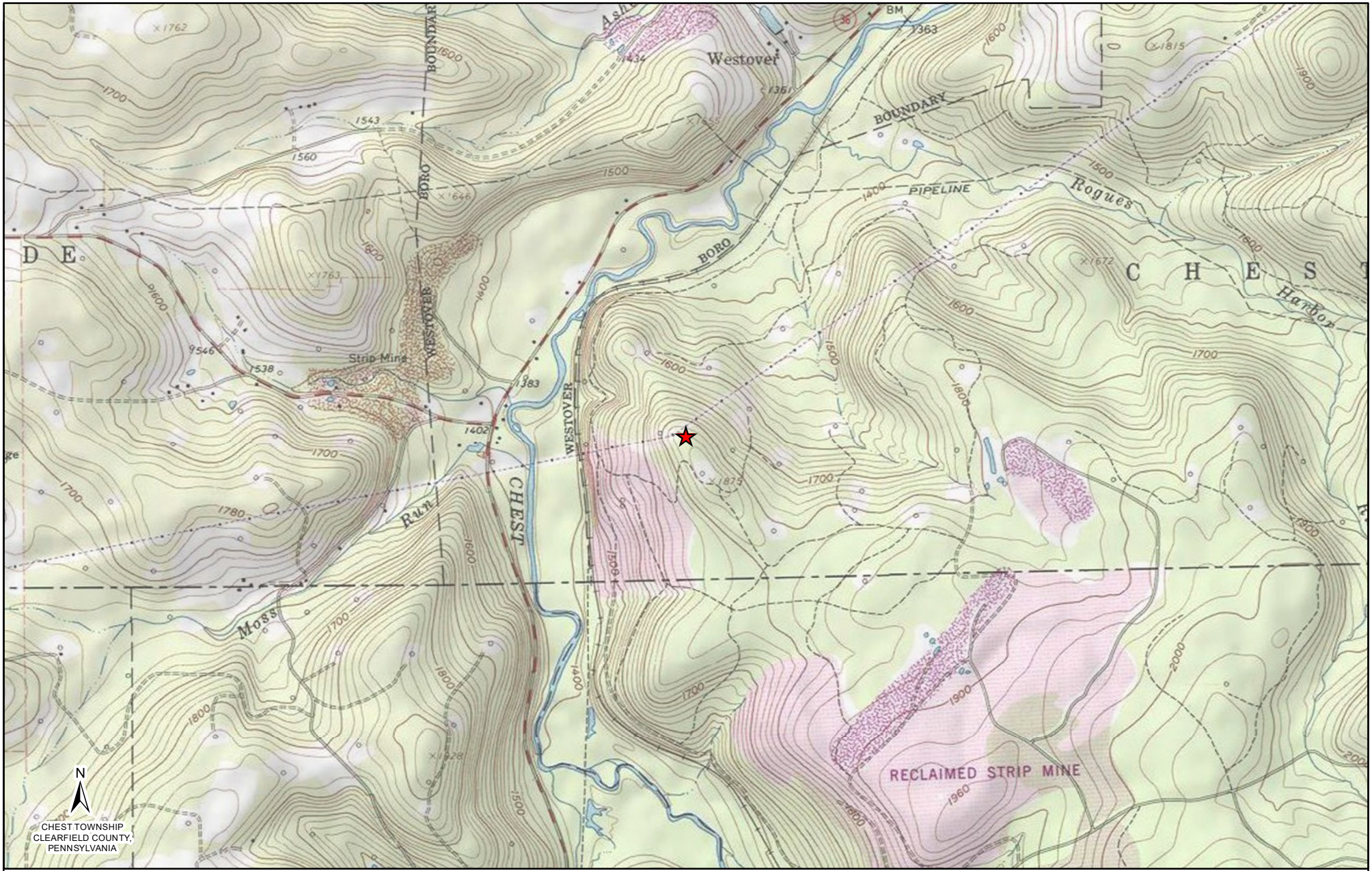
E-mail: glent@postschell.com
Email: mrulli@postschell.com

Attorneys for Mid-Atlantic Interstate Transmission, LLC

Date: November 7, 2025

EXHIBIT 1



LEGEND:

★ Project Area

0 1,000 2,000 4,000

Feet

Reference:
USGS Topographical Overlay; PennDOT, PADCNR PAMAP

Coordinate System:
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WKID: 2271 Authority: EPSG

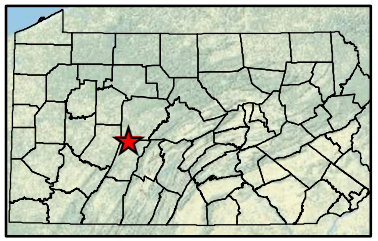


EXHIBIT 1

MAIT™
Mid-Atlantic Interstate Transmission, LLC

GARMAN-SHAWVILLE 115 kV SM
TRANSMISSION LINE INTERCONNECTION PROJECT

EXHIBIT 2

CLEARFIELD COUNTY
PENNSYLVANIA

1

CAMBRIA COUNTY
CONSERVATION &
RECREATION
AUTHORITY

2

ROCK RUN
RECREATION INC

TO MADERA SUB

GARMAN-SHAWVILLE 115 kV SM

100' R/W

#69

#68B

#68A

50' R/W

190'

190'

CHEST CREEK
EAST BAY

CHEST CREEK
WEST BAY

CHEST CREEK INTERCONNECTION
STATION

#68

50' R/W

TO WESTOVER SUB

LEGEND

- NEW STRUCTURE
- EXISTING STRUCTURE
- TRANSMISSION LINE
- ROW LINE
- PROPERTY LINE

PAPER SIZE: 17X11

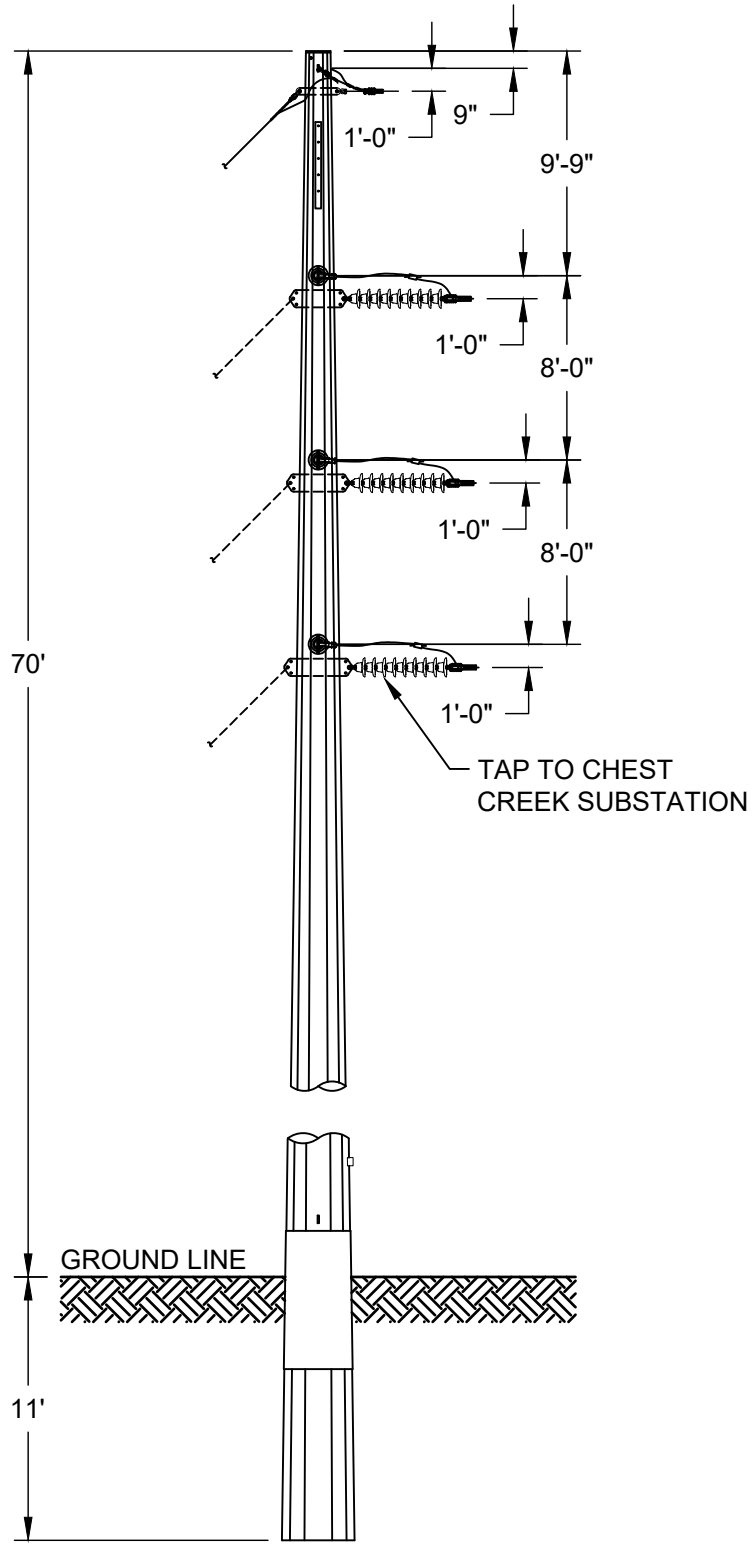
MAIT™
Mid-Atlantic Interstate Transmission, LLC
A FirstEnergy Company

GARMAN-SHAWVILLE 115 kV SM TRANSMISSION
LINE INTERCONNECTION PROJECT

GENERAL LAYOUT

EXHIBIT 2

EXHIBIT 3



ELEVATION
LOOKING EAST

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

GARMAN-SHAWVILLE 115 kV SM TRANSMISSION
LINE INTERCONNECTION PROJECT

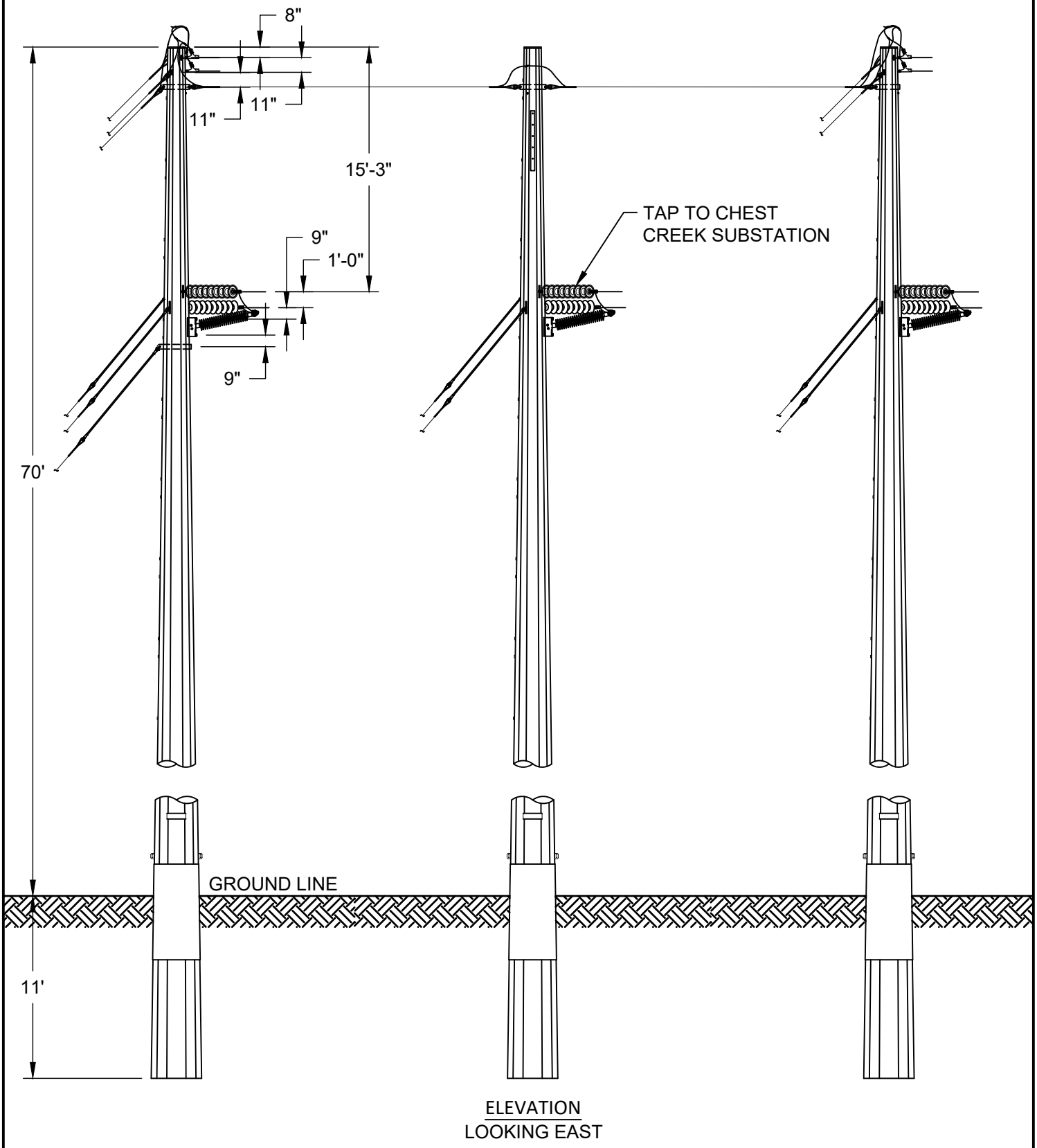
115 kV DEADEND VERTICAL
SINGLE POLE STRUCTURE

EXHIBIT 3

PAPER SIZE: 8.5X11

SCALE: NTS

EXHIBIT 4



ELEVATION
LOOKING EAST

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

GARMAN-SHAWVILLE 115 kV SM TRANSMISSION
LINE INTERCONNECTION PROJECT

115 kV DEADEND HORIZONTAL THREE POLE STRUCTURE

EXHIBIT 4

SCALE: NTS

PAPER SIZE: 8.5X11

EXHIBIT 5

Exhibit 5

Wetland and Other Waters Delineation Report

ROGUE'S WIND ENERGY PROJECT
CAMBRIA AND CLEARFIELD COUNTIES, PENNSYLVANIA

Prepared For

CPV Rogue's Wind, LLC
50 Braintree Hill Office Park, Suite 300
Braintree, MA 02184

Prepared By

239 Main Street, Suite 301
Dickson City, PA 18519
P: 570.489.6920
www.trccompanies.com

September 21, 2021

309725635.1

TABLE OF CONTENTS

LIST OF ATTACHMENTS

List of Contributors

Jason Tourscher: Director of Permitting
Jeff Zirpoli: Director of Ecology
Ryan Pohle: Senior GIS Manager
David Bonomo: Senior Wetland Ecologist
Curtis Kleist, PWS: Senior Wetland Ecologist
Joe Wilson: Professional Wetland Scientist
Michael David: Environmental Scientist
Carlyle Meekins: Environmental Scientist
Elizabeth Masi: Ecologist
Joseph Kaminski: Ecologist
Vincent Gray: Ecologist

1 INTRODUCTION

TRC Environmental Corporation (TRC) was retained by CPV Rogue's Wind, LLC to: (1) determine the character and extent of federal and state regulated wetlands and other waters; (2) to flag in the field any wetlands and other waters encountered; and (3) to issue a report describing the delineation methods and findings within an approximately 2,567 acre (ac; 1,039 hectare [ha]) wetland study area (study area) at the proposed Rogue's Wind Energy Project (Project) site in Cambria and Clearfield County, Pennsylvania (Attachment 1). The wetland/waterbody delineation was conducted by TRC ecologists David Bonomo, Michael David, Vincent Gray, Joseph Kaminski, Curtis Kleist, Elizabeth Masi, Carlyle Meekins, Joe Wilson, and Jeff Vandeveer between October 6 to October 29, 2020, March 24 to March 26, 2021, and August 31, 2021. Mr. Kleist, Mr. Vandeveer, and Ms. Masi have completed US Army Corps of Engineers (USACE) Wetland Delineation/Regional Supplement/Waters of the United States training.

2 SITE DATA

The study area was located in central Pennsylvania, approximately 1.1 miles (mi; 1.8 kilometers [km]) northwest of the Borough of Patton in Cambria County (Attachment 1). *Geographical Location*: Westover and Chest Townships, Cambria County and Chest Township and Westover Borough, Clearfield County; Commonwealth of Pennsylvania

- *US Geological Survey (USGS) Quadrangles:* Hastings
- *Soil Survey:* Soil Survey of Cambria County, Pennsylvania and Clearfield County, Pennsylvania; National Resources Conservation Service (NRCS) Web Soil Survey 3.3.2
- *Watershed (HUC 8):* Upper West Branch Susquehanna
- Watershed (HUC 10): Chest Creek and Clearfield Creek
- *Study Area:* 2,567 ac (1,039 ha)
- *Site Coordinates (approximate center of study area):* 40.699129, - 78.660649

3 REGULATORY REQUIREMENTS

Activities in Waters of the United States (WOUS) (including wetlands) are regulated by the USACE under the authority of Section 404 of The Clean Water Act. Similarly, activities in Waters of the Commonwealth (including wetlands) are regulated by the Pennsylvania Department of Environmental Protection (PADEP) under the authority of the Pennsylvania Dam Safety and Encroachments Act and Clean Streams Law.

The USACE applies the definitions of "WOUS" and "wetlands" codified at 33 CFR §328.3 for purposes of implementing the Clean Water Act Section 404 permit program. PADEP applies the definitions of "Regulated waters of this Commonwealth" and "wetlands" codified at 25 Pa. Code §105.1 for purposes of implementing the parallel Dam Safety and Encroachments Act permit program. The definitions codified at 25 Pa. Code §105.1 are as follows:

- A *wetland* is "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."
- *Regulated Waters of this Commonwealth* are "Watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth."
    - Watercourses/streams are defined as "a channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow".
    - Floodways are defined as "The channel of the watercourse and portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by the Federal Emergency Management Agency (FEMA). In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet [15 meters] from the top of the bank of the stream."

Under current USACE practice, all waters and wetlands that meet these state definitions are assumed to be federally jurisdictional WOUS unless an approved jurisdictional determination (AJD) is obtained. For the purposes of this report, we have assumed that all waters and wetlands meeting the state definitions may also be federally jurisdictional, without regard to any recent or potential future changes to the federal definitions. Additional analysis would be required to determine if the waters and wetlands can be excluded as WOUS under the criteria established in current federal regulations and guidance.

4 METHODS

TRC completed a desktop background review and field investigation to evaluate the study area. The results of this desktop analysis were used to help identify potential areas where state and federally regulated features could be located before conducting the field investigation.

4.1 Desktop Review

Available reference data was assembled and evaluated prior to conducting field investigations. An aerial imagery-based geographic information system generated map was created to illustrate the topographic contours and natural resource features within the study area to facilitate the review of existing information. The desktop reference data included, but not limited to, the Hastings USGS Quadrangle Map (Attachment 2), NRCS Web Soil Survey 3.3.2 Program (Attachment 3), and US Fish and Wildlife Service National Wetland Inventory (NWI) mapping (Attachment 4).

The study area is mapped within Hastings, PA USGS topographic 7.5-minute quadrangle with elevations ranging from approximately 1,388 to 2,280 feet (ft; 423 to 694 meters [m]) above the mean sea level (Attachment 2).

There are 49 soil units mapped within the study area. Three of the soil units (At, BtB, and NoB) are listed as having major hydric components, occurring on 63.4 ac (25.7 ha; 2.7%) of the study area. An additional 17 mapped soil units contain minor hydric soil components, comprising 799.1 ac (323.4 ha; 34.5%) within the study area. Hydric soils are an indicator for potential wetland soils. Information on the soil units mapped within the study area is provided in the NRCS Web Soil Survey Report (Attachment 3).

The NWI map prepared by the U.S. Fish and Wildlife Service identified the presence of 24 wetland/riverine features within the study area, with a total of 1 freshwater forested/shrub wetlands, 14 freshwater ponds and 9 riverine features. The locations of the NWI wetlands and watercourses are depicted on the map in Attachment 4.

4.2 Field Investigation

The USACE, U.S. Environmental Protection Agency and PADEP require the use of the "Corps of Engineers Wetland Delineation Manual (January 1987)," as a guide for field methodology in order to assure that all wetland boundary delineations are consistent with the federal and state wetlands regulations. In addition, the "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0. April 2012" has been adopted for

use in this location. The routine methodology for sites greater than 5 ac (2 ha) res was employed in the identification and delineation of WOUS features within the study area.

Field indicators for wetland hydrology, hydric soils and vegetation were evaluated in accordance with the field methods described in the USACE manual. The data collected was recorded and is reported on the Field Data Sheets (Attachment 5). Wetland boundaries were flagged with pink wetland ribbon and immediately surveyed with a Trimble GeoXH, Geo7x or R1 handheld GPS unit, which all provide sub-meter accuracy. The location of representative data points were surveyed with the same devices.

5 FIELD INVESTIGATION FINDINGS

Thirty-six watercourses, 193 wetlands, and 21 other water bodies were delineated within the study area (Tables 1, 2 & 3). Representative photographs of these features are presented in Attachment 6. The surveyed locations of the delineated features are indicated on the Wetland and Other Waters Delineation Map in Attachment 7.

Table 1. Delineated Streams

	Stream ID	Cowardin	Lineal Feet	Latitude	Longitude	Sheet #
1	CK_C	R4	1,682	40.71870	-78.68044	3
2	CK_C-2	R4	399	40.71816	-78.68148	3
3	CK_G_2	R3	1,773	40.70729	-78.66610	4,5
4	CK_G_3	R4	2,182	40.71117	-78.66614	5
5	CK_KKKKK	R4	243	40.70237	-78.65931	6
6	DB_1	R4	2069	40.68543	-78.64602	8
7	DB_17	R4	220	40.68319	-78.64755	8,9
8	DB_21	R4	1,344	40.69432	-78.64658	7
9	DB_33	R4	462	40.69953	-78.64613	5
10	DB_36	R4	115	40.70030	-78.64599	5
11	DB_37	R4	1,467	40.69924	-78.64751	5
12	DB_40	R4	375	40.70029	-78.64670	5
13	DB_41	R4	559	40.69540	-78.64829	7,8
14	DB_43	R4	286	40.70382	-78.65729	7
15	DB_44	R4	101	40.70412	-78.65724	7
16	DB_45	R4	107	40.70420	-78.65725	7
17	DB_48	R4	1,141	40.69841	-78.64732	7
18	DB_49	R4	597	40.66485	-78.65657	10
19	DB_51	R4	240	40.70415	-78.65784	7
20	DB_6	R4	182	40.68564	-78.64732	6
21	EM_4	R4	1,797	40.66104	-78.65243	10
22	EM_4-2	R4	230	40.66147	-78.65221	10
23	EM_5	R4	623	40.66530	-78.65202	10
24	EM_5-2	R4	240	40.66539	-78.65315	10
25	EM_9	R4	2,302	40.67116	-78.65332	10
26	DB_54	R3	689	40.72840	-78.66800	2
27	DB_56	R4	58	40.72850	-78.66650	2
28	DB_58	R4	266	40.72920	-78.66790	2
29	DB_60	R4	70	40.72940	-78.66810	2
30	DB_67	R4	58	40.65440	-78.70270	7
31	DB_68	R4	271	40.70630	-78.65360	5,7
32	DB_72	R4	209	40.68660	-78.64960	8
33	DB_75	R4	101	40.68620	-78.64930	8
34	DB_79	R3	992	40.72670	-78.69140	1
35	DB_82	R4	81	40.72590	-78.69200	1
36	DB_84	R4	80	40.72540	-78.69180	1
		Total =	23,611			

Table 2. Delineated Wetlands

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
1	CK_A	PFO	2.80	122,056	40.72327	-78.68686	1
2	CK_AA	PEM	0.23	10,160	40.71534	-78.66269	4
3	CK_AAAA	PFO	0.74	32,290	40.73035	-78.66877	2
4	CK_AAAAA	PEM	0.02	948	40.71709	-78.67320	4
5	CK_BB	PEM	0.09	3,904	40.71628	-78.66786	4
6	CK_BBB	PEM	0.05	2,061	40.71931	-78.66549	4
7	CK_BBBB	PEM	0.00	26	40.73122	-78.67085	2
8	CK_BBBBB	PEM	0.03	1,226	40.71629	-78.67300	2
9	CK_C	PFO	1.28	55,589	40.71890	-78.68005	3
9	CK_C_2	PFO	0.34	14,836	40.71726	-78.68171	3
10	CK_CC	PEM	0.44	19,249	40.71659	-78.66824	4
11	CK_CCC_2	PEM	0.74	32,359	40.72987	-78.66594	2
12	CK_CCCC	PEM	0.06	2,580	40.72269	-78.65878	4
13	CK_CCCCC	PFO	0.01	500	40.70524	-78.66019	5
14	CK_D	PEM	0.19	8,476	40.70502	-78.67190	5
15	CK_D_2	PEM	0.15	6,543	40.70547	-78.67160	5
16	CK_D_5	PSS	0.55	23,995	40.70677	-78.66601	5
16	CK_D_5-2	PSS	0.50	21,832	40.70685	-78.66498	5
17	CK_DD	PEM	0.54	23,589	40.71872	-78.66751	4
18	CK_DDD	PEM	0.03	1,468	40.72923	-78.66220	2
19	CK_DDDD	PEM	0.69	30,157	40.71210	-78.66423	4, 5
20	CK_DDDDD-1	PEM	0.10	4,507	40.70484	-78.65975	5
21	CK_DDDDD-2	PEM	0.02	910	40.70467	-78.65953	5
22	CK_E	PEM	0.05	2,117	40.70605	-78.67182	5
23	CK_EE	PEM	0.13	5,483	40.71382	-78.67032	4
24	CK_EEE	PEM	0.04	1,925	40.73006	-78.66452	2
25	CK_EEEE	PEM	0.04	1,740	40.71025	-78.66467	5
26	CK_EEEEE_1-2	PEM	0.33	14,517	40.70364	-78.65897	5
26	CK_EEEEE_1-3	PSS	0.14	6,048	40.70409	-78.65910	5
27	CK_EEEEE_2	PEM	0.12	5,152	40.70426	-78.65850	5
28	CK_F_2	PFO	0.11	4,890	40.70666	-78.67108	5
29	CK_FF	PEM	0.11	4,729	40.71447	-78.67064	4
30	CK_FFF	PEM	0.11	5,006	40.72826	-78.66077	2
31	CK_FFFF-1	PFO	0.02	1,015	40.71163	-78.66447	4, 5
32	CK_FFFF-2	PFO	0.05	2,154	40.71252	-78.66255	4
33	CK_FFFF-3	PFO	0.06	2,705	40.71260	-78.66224	4
34	CK_FFFFF	PEM	0.01	630	40.70442	-78.65875	5
35	CK_G_2	PFO	0.36	15,478	40.71054	-78.66642	5

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
36	CK_G_2-2	PFO	0.07	2,978	40.70914	-78.66762	5
37	CK_G_2-3	PEM	0.39	16,785	40.70818	-78.66784	5
37	CK_G_2-4	PEM	0.11	4,733	40.70823	-78.66758	5
37	CK_G_2-5	PFO	0.23	10,060	40.70860	-78.66875	5
38	CK_G_2-6	PEM	0.30	13,224	40.70733	-78.66595	5
39	CK_G_3	PFO	0.09	3,721	40.71171	-78.66665	5
40	CK_G_4	PEM	0.05	2,107	40.71244	-78.66653	4
41	CK_GG	PEM	0.23	10,105	40.71477	-78.66767	4
42	CK_GGG	PEM	0.42	18,397	40.72743	-78.66131	2
43	CK_GGGG-1	PFO	0.07	2,883	40.72178	-78.67933	1
44	CK_GGGG_2_2	PEM	0.10	4,310	40.72231	-78.67917	1
45	CK_GGGGG	PEM	0.07	3,225	40.72677	-78.69251	2
46	CK_HH	PEM	0.13	5,657	40.71615	-78.66895	4
47	CK_HHH	PEM	0.16	7,041	40.72755	-78.66095	2
48	CK_HHHHH-1	PFO	0.08	3,550	40.72795	-78.69274	1
49	CK_HHHHH-2	PFO	1.61	70,078	40.72747	-78.69263	1
50	CK_I	PFO	1.73	75,181	40.70778	-78.66961	5
51	CK_II	PEM	0.52	22,482	40.71552	-78.66997	4
52	CK_III	PEM	1.04	45,156	40.72701	-78.65694	2
53	CK_IIII	PEM	0.01	543	40.72469	-78.67734	2
54	CK_IIIII	PEM	0.06	2,789	40.70882	-78.66336	5,6
55	CK_J	PEM	0.07	3,248	40.70710	-78.67224	5
56	CK_J-2	PEM	0.11	4,894	40.70900	-78.66876	5
57	CK_JJ	PEM	0.09	4,089	40.72068	-78.66861	4
58	CK_JJJ	PEM	0.41	17,849	40.72614	-78.65939	2
59	CK_JJJJ	PFO	0.26	11,468	40.72526	-78.67743	1
60	CK_JJJJJ	PFO	0.25	10,978	40.70275	-78.65875	5,6
61	CK_K	PEM	0.08	3,600	40.70731	-78.67070	5
62	CK_KK	PEM	0.04	1,626	40.72022	-78.66845	4
63	CK_KKK	PFO	0.56	24,417	40.71353	-78.67779	3
64	CK_KKKK	PEM	0.06	2,701	40.73008	-78.68497	1
65	CK_KKKKK	PFO	0.25	10,897	40.70187	-78.65915	5
66	CK_L	PEM	0.05	2,015	40.71054	-78.67396	5
67	CK_LL	PEM	0.03	1,379	40.72029	-78.66776	4
68	CK_LLL	PEM	0.02	888	40.72547	-78.65926	2
69	CK_LLLL	PEM	0.05	2,171	40.71997	-78.68130	3
70	CK_LLLLL	PEM	0.03	1,384	40.72034	-78.65602	4
71	CK_M	PEM	0.04	1,779	40.72557	-78.68772	1
72	CK_MM	PEM	0.10	4,165	40.71538	-78.68004	3
73	CK_MMM	PEM	0.66	28,678	40.72149	-78.66674	4

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
74	CK_MMMM	PEM	0.07	3,163	40.71872	-78.68297	3
75	CK_MMMMM	PEM	0.13	5,743	40.72200	-78.65739	4
76	CK_N	PFO	0.03	1,324	40.71300	-78.66513	4
77	CK_NN	PEM	0.06	2,607	40.72096	-78.66889	4
78	CK_NNN	PEM	0.18	7,646	40.70492	-78.67026	5
79	CK_NNNN	PEM	0.01	551	40.71540	-78.67173	4
80	CK_NNNNN	PEM	0.92	40,157	40.71474	-78.65901	4
81	CK_O	PFO	0.01	221	40.71225	-78.66470	4
82	CK_OO	PEM	0.20	8,549	40.72061	-78.66993	4
83	CK_OOO	PEM	0.09	3,730	40.72429	-78.65548	2
84	CK_OOOO	PEM	0.04	1,645	40.71584	-78.67177	4
85	CK_OOOOO	PEM	0.06	2,660	40.68871	-78.66193	8
86	CK_P_2	PEM	0.16	6,940	40.71987	-78.68044	3
87	CK_PP	PEM	0.06	2,570	40.72170	-78.67137	4
88	CK_PPP	PEM	0.04	1,910	40.72239	-78.65400	4
89	CK_PPPP	PEM	0.03	1,524	40.71616	-78.67148	4
90	CK_Q	PEM	0.25	10,759	40.71788	-78.68248	3
91	CK_Q-2	PEM	0.44	19,352	40.71657	-78.66322	4
92	CK_QQ	PEM	0.02	660	40.72192	-78.67475	1
93	CK_QQQ	PEM	0.01	581	40.72017	-78.66131	4
94	CK_QQQQ	PEM	0.02	938	40.71657	-78.67081	4
95	CK_R	PEM	0.04	1,556	40.70349	-78.67060	5,6
96	CK_RR	PEM	0.46	19,970	40.72323	-78.67548	1,4
97	CK_RRR	PEM	0.02	904	40.71996	-78.66272	4
98	CK_RRRR	PEM	0.05	2,375	40.71687	-78.67050	4
99	CK_S	PFO	2.11	91,733	40.71392	-78.66245	4
100	CK_SS	PEM	0.14	6,246	40.72309	-78.66917	4
101	CK_SSS	PEM	0.00	87	40.71972	-78.66357	4
102	CK_SSSS	PEM	0.23	10,086	40.71752	-78.66864	4
103	CK_TT	PEM	0.05	2,232	40.72374	-78.66848	2
104	CK_TTT	PFO	0.02	750	40.71955	-78.66353	4
105	CK_TTTT	PEM	0.01	554	40.71787	-78.66876	4
106	CK_U	PEM	0.13	5,511	40.71647	-78.66394	4
107	CK_UU	PEM	0.19	8,270	40.72424	-78.66809	2
108	CK_UUU	PFO	0.01	549	40.71908	-78.66378	4
109	CK_UUUU	PEM	0.05	2,344	40.71833	-78.66911	4
110	CK_VV	PEM	0.10	4,339	40.72504	-78.67099	2
111	CK_VVV	PEM	0.03	1,214	40.72062	-78.65913	4
112	CK_VVVV	PEM	0.02	765	40.71759	-78.67026	4
113	CK_WW	PEM	0.02	984	40.72313	-78.67255	2

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
114	CK_WWW	PEM	0.02	678	40.72003	-78.65904	4
115	CK_WWWW	PEM	0.03	1,192	40.71729	-78.67062	4
116	CK_X	PFO	0.10	4,259	40.71342	-78.66316	4
117	CK_XX	PEM	0.11	4,954	40.72201	-78.66715	4
118	CK_XXX	PEM	0.37	16,273	40.71729	-78.66091	4
119	CK_XXXX	PEM	0.03	1,271	40.71748	-78.67196	4
120	CK_Y	PFO	0.70	30,286	40.71309	-78.66427	4
121	CK_YY	PFO	0.11	4,755	40.70672	-78.66410	5
122	CK_YYY	PEM	0.15	6,390	40.71983	-78.66456	4
123	CK_YYYY	PEM	0.08	3,573	40.71791	-78.67190	4
124	CK_Z	PFO	0.42	18,330	40.71480	-78.66196	4
125	CK_ZZ	PEM	0.10	4,317	40.72007	-78.66482	4
126	CK_ZZZ	PFO	0.13	5,669	40.70701	-78.66476	5
127	CK_ZZZZ	PEM	0.05	1,972	40.71827	-78.67151	4
128	DB_13	PEM	0.10	4,271	40.68597	-78.64993	8
129	DB_14	PEM	0.14	6,179	40.68504	-78.64649	8
130	DB_15	PFO	0.00	6,144	40.68621	-78.64720	8
131	DB_16	PFO	0.01	589	40.68288	-78.64765	9
132	DB_18	PEM	0.21	9,111	40.68398	-78.64800	8
133	DB_19	PEM	0.06	2,818	40.69299	-78.64606	8
134	DB_20	PEM	0.12	5,294	40.69355	-78.64611	7,8
135	DB_22	PEM/PFO	0.01	622	40.69436	-78.64711	7,8
136	DB_23	PFO	0.90	39,245	40.69421	-78.64771	7,8
137	DB_25	PEM/PFO	0.09	4,057	40.68965	-78.64861	8
138	DB_26	PEM	0.09	3,716	40.68710	-78.64623	8
139	DB_27	PEM	0.06	2,482	40.68642	-78.64581	8
140	DB_28	PEM	0.03	1,269	40.69121	-78.64714	8
141	DB_29	PEM	0.06	2,591	40.69642	-78.64067	7
142	DB_3	PEM	0.05	2,344	40.68523	-78.64717	8
143	DB_30	PEM	0.02	737	40.69723	-78.64056	7
144	DB_31	PEM	0.45	19,636	40.69948	-78.64474	5
145	DB_34	PEM	0.12	5,025	40.69941	-78.64601	5
146	DB_35	PEM/PFO	0.62	27,219	40.69911	-78.64710	5
147	DB_38	PFO	0.03	1,448	40.69828	-78.64859	5
148	DB_4	PSS	0.10	4,342	40.68535	-78.64701	8
149	DB_42	PEM/PFO	1.66	72,384	40.70283	-78.65296	5,6
150	DB_46	PFO	0.45	19,682	40.69399	-78.64620	7,8
151	DB_47	PEM	0.26	11,415	40.69500	-78.64604	7,8
152	DB_5	PEM/PSS	0.01	548	40.68543	-78.64729	8
153	DB_50	PEM	0.00	184	40.68546	-78.65237	8

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
154	DB_7	PEM	0.33	14,428	40.68550	-78.64826	8
155	DB_9	PEM	0.05	2,380	40.68601	-78.64911	8
156	EM_1	PFO	0.21	8,960	40.65816	-78.65510	11
157	EM_2	PFO	0.18	7,924	40.65807	-78.65546	11
158	EM_3	PFO	0.11	4,604	40.65918	-78.65313	11
159	EM_4	PFO	0.93	40,565	40.66185	-78.65060	10
159	EM_4_2	PFO	0.93	40,302	40.66079	-78.65221	10
160	EM_5	PFO	3.82	166,431	40.66610	-78.65191	10
161	EM_5-2	PFO	0.15	6,412	40.66521	-78.65183	10
162	EM_6	PEM/PUB	0.16	6,930	40.66472	-78.65247	10
163	EM_7	PEM	0.02	1,079	40.66397	-78.65142	10
164	EM_9_	PEM	1.16	50,731	40.67137	-78.64986	10
164	EM_9_2	PEM/PFO	0.69	30,019	40.67029	-78.65086	10
164	EM_9_3	PEM/PFO	0.42	18,153	40.67100	-78.64958	10
165	JK_V	PEM	0.01	640	40.71767	-78.66349	4
166	JK_W	PEM	0.03	1,219	40.71505	-78.66080	4
167	JW_1	PEM	0.05	2,354	40.67963	-78.65793	9
168	JW_10	PEM	0.77	33,734	40.68054	-78.65956	9
168	JW_10_2	PFO	0.18	7,630	40.68015	-78.66000	9
169	JW_12	PEM	0.18	7,884	40.67989	-78.66098	9
170	JW_13	PEM	0.00	185	40.67634	-78.66038	9
171	JW_16_2	PEM	0.15	6,558	40.67537	-78.65136	9
172	JW_17	PFO	0.05	2,031	40.67858	-78.65686	9
173	JW_19	PEM	0.02	973	40.68253	-78.65884	9
174	JW_21	PFO	0.17	7,360	40.67644	-78.65032	9
175	JW_21_2	PEM	0.04	1,850	40.67633	-78.65123	9
176	JW_26	PEM	0.05	2,096	40.66869	-78.65701	10
177	JW_28	PFO	0.26	11,377	40.67006	-78.65801	10
177	JW_3	PEM	0.06	2,404	40.68010	-78.65764	9
177	JW_3_2	PFO	0.02	746	40.68017	-78.65768	9
178	JW_30	PFO	0.02	944	40.66935	-78.65884	10
179	JW_5	PEM	0.02	1,076	40.68011	-78.65798	9
179	JW_5_2	PFO	0.02	782	40.68007	-78.65806	9
180	JW_6	PEM	0.17	7,395	40.67932	-78.65705	9
181	JW_8	PFO/PEM	0.10	4,317	40.68048	-78.65862	9
182	DB_52	PEM	0.02	851	40.72840	-78.66890	2
183	DB_55	PEM	0.16	6,778	40.72836	-78.66626	2
184	DB_57	PFO	0.04	1,938	40.72880	-78.66690	2
185	DB_61	PEM	0.09	3,998	40.72950	-78.66780	2
186	DB_63	PEM	0.01	451	40.72290	-78.66700	2

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
187	DB_70	PEM	0.69	30,148	40.68893	-78.64971	8
188	DB_73	PEM	0.05	2,362	40.68630	-78.64940	8
189	DB_74	PFO	0.05	2,218	40.68680	-78.64940	8
190	DB_76	PSS	5.24	228,010	40.72596	-78.68995	1
191	DB_81	PEM	0.02	695	40.72657	-78.69204	1
192	DB_83	PEM	0.03	1,311	40.72583	-78.69176	1
193	DB_85	PEM	0.02	755	40.72632	-78.69180	1
		Total =	**47.19**	**2,055,544**			

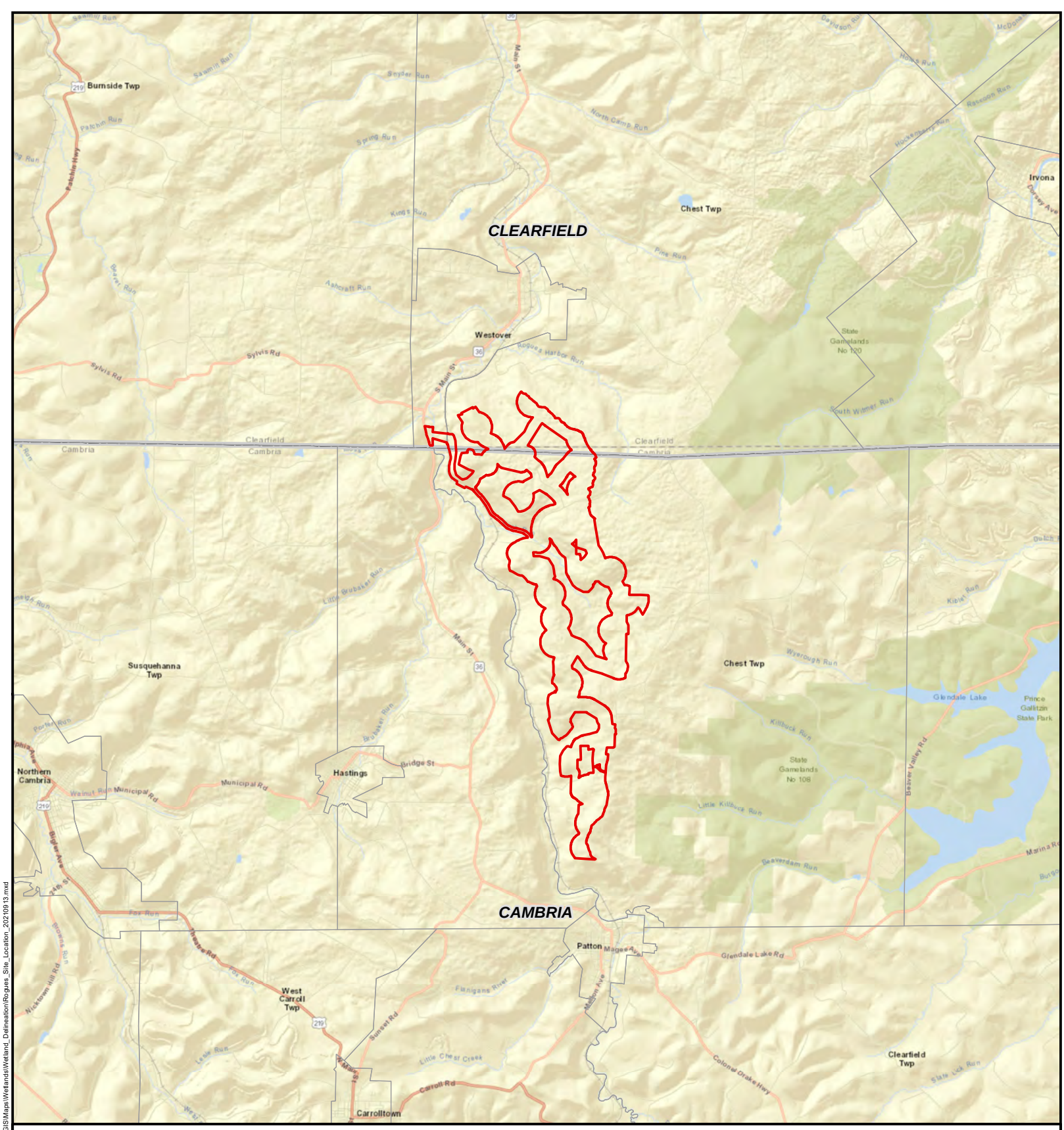
Table 3. Open Water Features

	Open Water ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
1	CK_CCC	PUB	0.80	34,663	40.72987	-78.66635	2
2	CK_EEEEE_1	PUB	0.34	14,598	40.70357	-78.65936	5
3	CK_EEEEE_3	PUB	0.08	3,368	40.70393	-78.65848	5
4	CK_EEEEE_4	PUB	0.05	2,342	40.70381	-78.65824	5
5	CK_F	PUB	0.26	11,375	40.70673	-78.67067	5
6	CK_G	PUB	0.10	4,156	40.70694	-78.67001	5
7	CK_GGGG-2	PUB	0.07	2,908	40.72200	-78.67937	1
8	CK_H	PUB	0.09	3,809	40.70818	-78.66843	5
9	CK_HHHH	PUB	0.64	27,709	40.72374	-78.67675	1
10	CK_P	PUB	0.57	24,977	40.71962	-78.68099	3
11	DB_10	PUB	0.00	150	40.68619	-78.64904	8
12	DB_11	PUB	0.63	27,625	40.68614	-78.64988	8
13	DB_2	PUB	0.08	3,269	40.68526	-78.64743	8
14	DB_24	PUB	0.01	387	40.68992	-78.64862	8
15	DB_32	PUB	0.29	12,703	40.69940	-78.64540	7
16	DB_8	PUB	0.13	5,857	40.68569	-78.64882	8
17	JW_16	PUB	1.45	63,078	40.67586	-78.65179	9
18	DB_63	PUB	0.06	2,783	40.72793	-78.66701	2
19	DB_64	PUB	0.54	23,340	40.72780	-78.66790	2
20	DB_65	PUB	0.05	2,069	40.72740	-78.66710	2
21	DB_66	PUB	0.08	3,607	40.72760	-78.66710	2
		Total =	**6.31**	**274,773**			

6 SUMMARY

Based on the field evaluation conducted over the period of October 2020 to August 2021, 194 wetlands, 21 open waters, and 36 watercourses are located within the study area. The wetland and other waters delineation provided by TRC represents our best professional judgment regarding the boundaries of these features within the study area at the time the survey occurred. Encroachment on or impacts to these delineated features may require a permit from the PADEP and/or USACE. Any change to the proposed project that may exceed the limits of the study area, as depicted on the Wetland and Other Waters Delineation Map in Attachment 7, will require additional wetland review.

Attachment 1. Site Location Map.



Rogue's Wind Energy Project Cambria and Clearfield Counties, Pennsylvania

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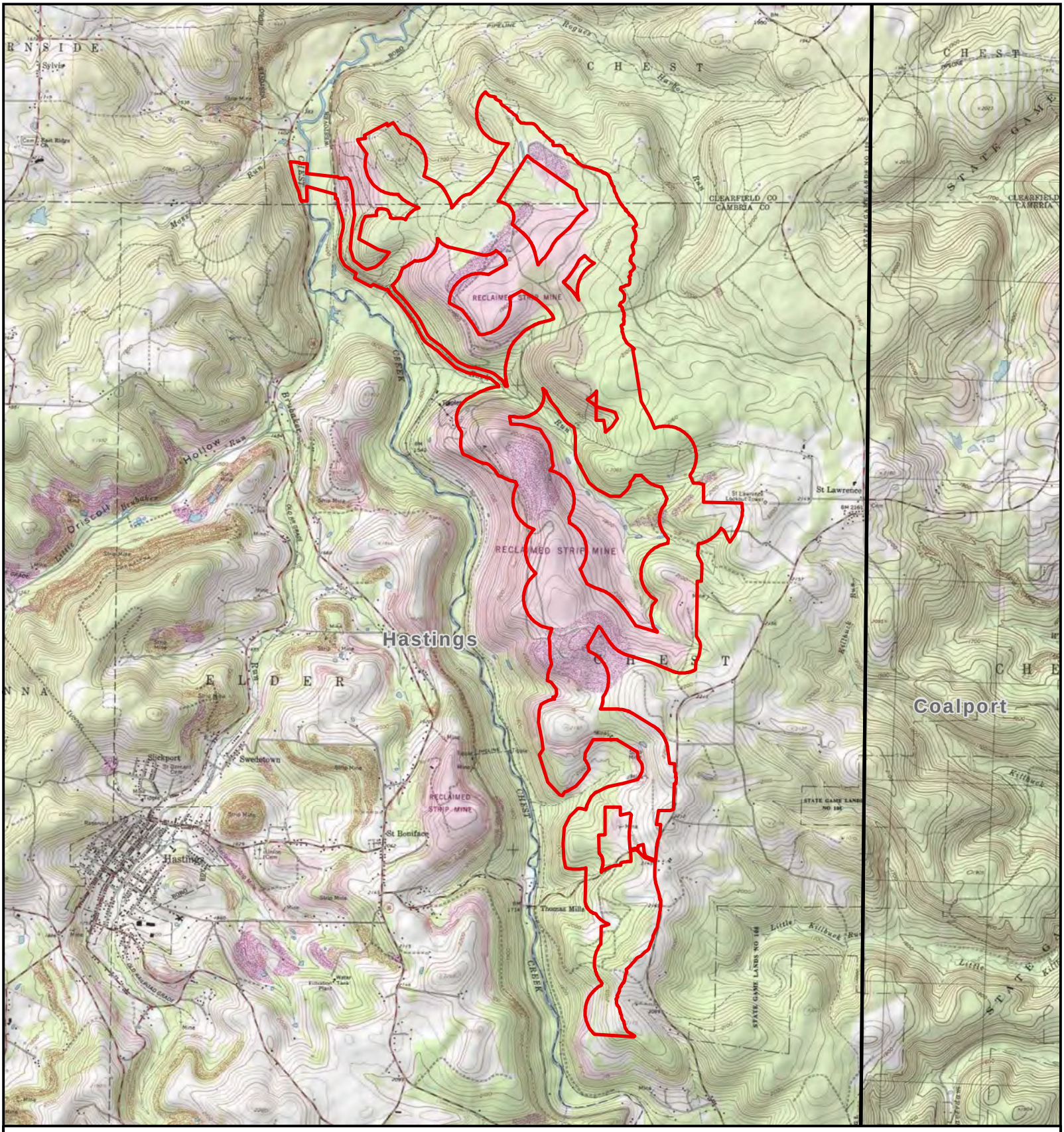
Attachment 2. USGS Quadrangle Map.



Rogue's Wind Energy Project Cambria and Clearfield Counties, Pennsylvania

Wetland Study Area (2,567 acres)

USGS 24k Topo Map Boundaries

N W E S

1:50,000

0 1 Kilometers

0 1 Miles

TRC

S:\1-PROJECTS\3-ShoenerEnv\ProjectFiles\19000s\19087_Rogues Wind_PA\GIS\Maps\Wetlands\Wetland_Delineation\Rogues_USGS_Topo_20210913.mxd

Attachment 3. NRCS Web Soil Survey Report.

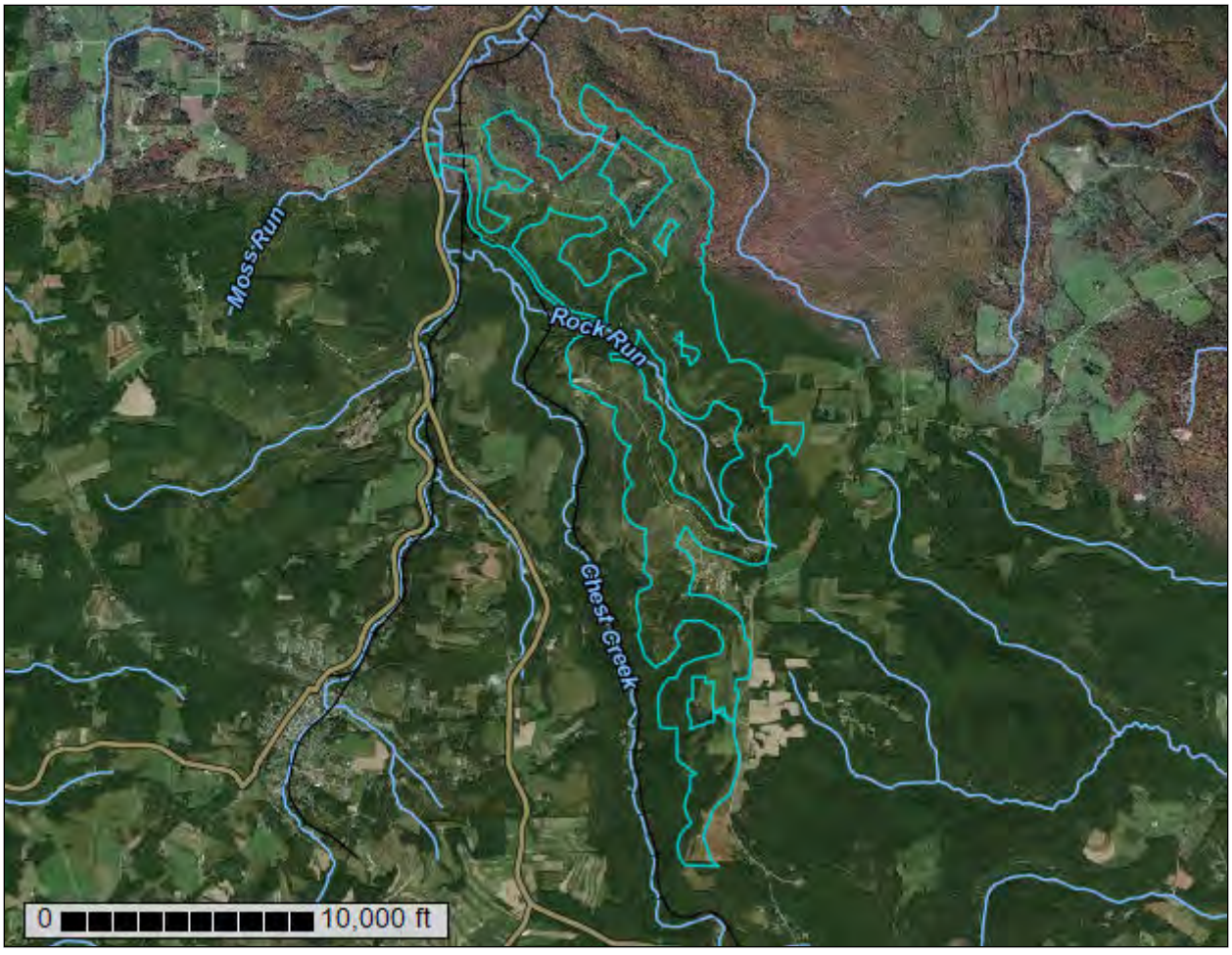
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Cambria County, Pennsylvania, and Clearfield County, Pennsylvania



September 27, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

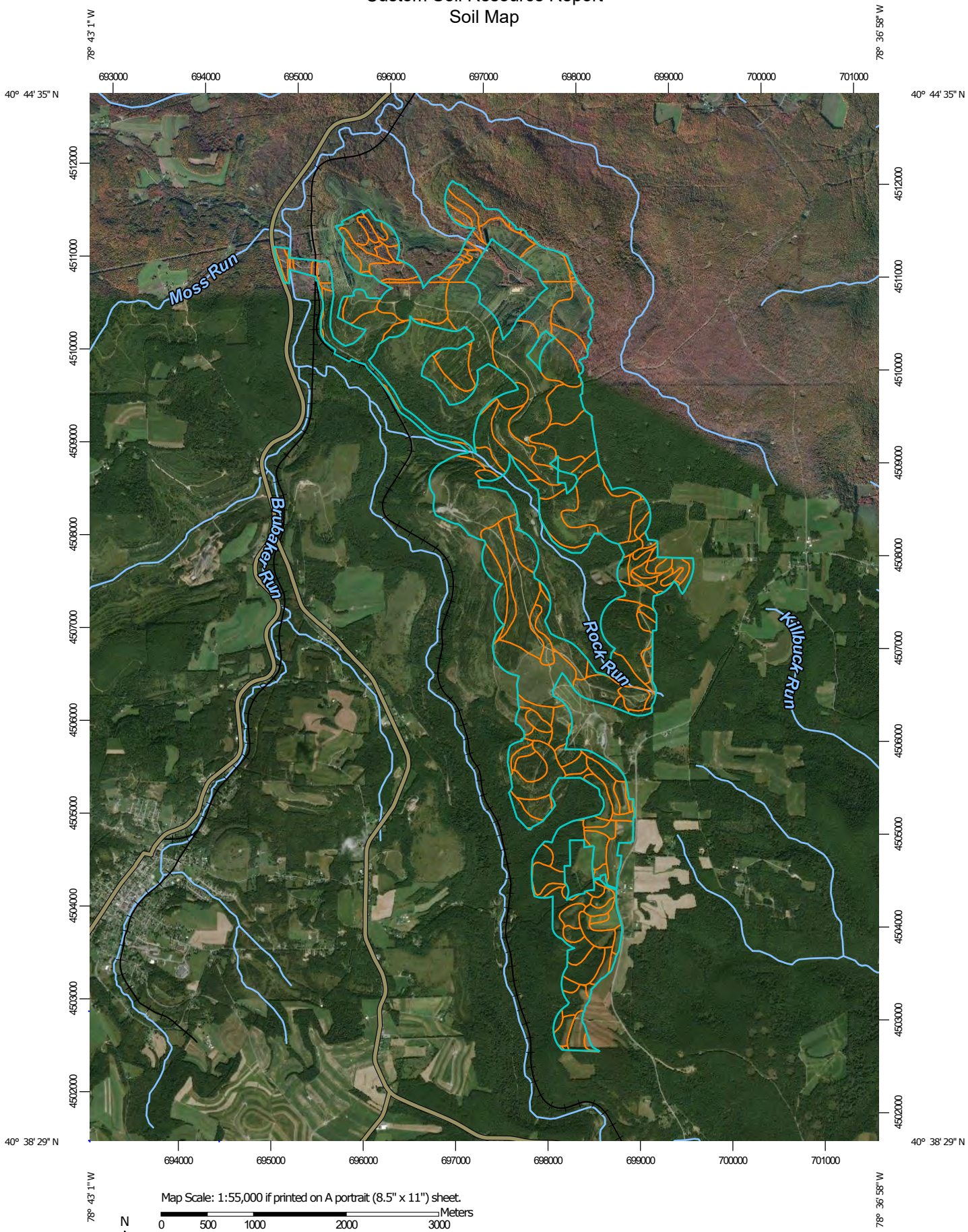
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:55,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 500 1000 2000 3000

Feet
0 2500 5000 10000 15000

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:20,000.

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: Cambria County, Pennsylvania
Survey Area Data: Version 16, Jun 5, 2020

Soil Survey Area: Clearfield County, Pennsylvania
Survey Area Data: Version 18, Jun 5, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Oct 6, 2011—Sep 20, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
At	Atkins silt loam, 0 to 3 percent slopes, frequently flooded	0.5	0.0%
BeB	Berks channery silt loam, 3 to 8 percent slopes	12.6	0.5%
BeC	Berks channery silt loam, 8 to 15 percent slopes	25.5	1.0%
BeD	Berks channery silt loam, 15 to 25 percent slopes	41.5	1.6%
BmB	Blairton silt loam, 3 to 8 percent slopes	4.5	0.2%
BtB	Brinkerton soils, 3 to 8 percent slopes	8.6	0.3%
CaB	Cavode silt loam, 3 to 8 percent slopes	37.8	1.5%
CeB	Cookport and Ernest soils, 3 to 8 percent slopes	46.2	1.8%
CeC	Cookport and Ernest soils, 8 to 15 percent slopes	21.9	0.9%
CvB	Cookport and Ernest very stony soils, 0 to 8 percent slopes	171.3	6.7%
CvD	Cookport and Ernest very stony soils, 8 to 25 percent slopes	82.9	3.2%
GnB	Gilpin silt loam, 3 to 8 percent slopes	33.1	1.3%
GpB	Gilpin channery silt loam, 3 to 8 percent slopes, extremely stony	6.6	0.3%
GtC	Gilpin-Rayne silt loams, 8 to 15 percent slopes	71.4	2.8%
GtD	Gilpin-Rayne silt loams, 15 to 25 percent slopes	17.1	0.7%
GwB	Gilpin-Weikert channery silt loams, 3 to 8 percent slopes	114.5	4.5%
GwC	Gilpin-Weikert channery silt loams, 8 to 15 percent slopes	45.3	1.8%
GwD	Gilpin-Weikert channery silt loams, 15 to 25 percent slopes	32.7	1.3%
GWF	Gilpin-Weikert channery silt loams, 25 to 70 percent slopes	191.3	7.5%
HaB	Hazleton channery loam, 3 to 8 percent slopes	72.7	2.8%
HaC	Hazleton channery loam, 8 to 15 percent slopes	15.3	0.6%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HaD	Hazleton channery loam, 15 to 25 percent slopes	25.9	1.0%
HbB	Hazleton channery sandy loam, 3 to 8 percent slopes, extremely stony	115.4	4.5%
HbD	Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony	105.1	4.1%
LaB	Laidig loam, 3 to 8 percent slopes	5.0	0.2%
LDF	Laidig soils, 25 to 70 percent slopes	72.2	2.8%
NoB	Nolo very stony sandy loam, 0 to 8 percent slopes	74.3	2.9%
UDC	Udorthents, strip mine, sloping	367.0	14.3%
UDF	Udorthents, strip mine, steep	409.5	16.0%
WaB	Wharton silt loam, 3 to 8 percent slopes	11.0	0.4%
WaC	Wharton silt loam, 8 to 15 percent slopes	6.1	0.2%
WgC	Wharton-Gilpin complex, 8 to 15 percent slopes	29.8	1.2%
WgD	Wharton-Gilpin complex, 15 to 25 percent slopes	9.0	0.3%
Subtotals for Soil Survey Area		**2,283.6**	**89.0%**
Totals for Area of Interest		**2,567.2**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
92B	Bethesda very channery silt loam, 0 to 8 percent slopes	31.4	1.2%
92D	Bethesda very channery silt loam, 8 to 25 percent slopes	16.4	0.6%
95D	Cedarcreek extremely channery loam, moderately steep	47.4	1.8%
BvD	Buchanan silt loam, 8 to 25 percent slopes, extremely stony	13.6	0.5%
CoB	Cookport channery loam, 3 to 8 percent slopes	7.3	0.3%
CoC	Cookport channery loam, 8 to 15 percent slopes	6.7	0.3%
ErC	Ernest silt loam, 8 to 15 percent slopes	2.8	0.1%
GlB	Gilpin channery silt loam, 3 to 8 percent slopes	13.0	0.5%
GlC	Gilpin channery silt loam, 8 to 15 percent slopes	1.8	0.1%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HbD	Hazleton very stony loam, 8 to 25 percent slopes	15.9	0.6%
HbF	Hazleton very stony loam, 25 to 80 percent slopes	8.0	0.3%
HcC	Hazleton-Clymer channery loams, 8 to 15 percent slopes	7.9	0.3%
HdB	Hazleton-Clymer very stony loams, 0 to 8 percent slopes	24.8	1.0%
Ph	Philo silt loam, 0 to 3 percent slopes, occasionally flooded	1.1	0.0%
RbF	Rayne channery silt loam, 25 to 65 percent slopes	26.1	1.0%
RcD	Rayne-Gilpin complex, 15 to 25 percent slopes	11.6	0.5%
TyB	Tyler silt loam, 3 to 6 percent slopes	8.1	0.3%
W	Water	1.4	0.1%
WhB	Wharton silt loam, 3 to 8 percent slopes	22.5	0.9%
WhC	Wharton silt loam, 8 to 15 percent slopes	15.9	0.6%
Subtotals for Soil Survey Area		**283.7**	**11.0%**
Totals for Area of Interest		**2,567.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They

generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cambria County, Pennsylvania

At—Atkins silt loam, 0 to 3 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 2sfsp
Elevation: 550 to 2,790 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Atkins and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Atkins

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Acid fine-loamy alluvium derived from sandstone and shale

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 8 inches: silt loam
Bg - 8 to 26 inches: loam
BCg - 26 to 38 inches: silt loam
Cg - 38 to 80 inches: gravelly sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: FrequentNone
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Minor Components

Basher

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Philo

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Linden

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

BeB—Berks channery silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2sftm
Elevation: 1,200 to 3,570 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Berks and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berks

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve

Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
Oe - 2 to 3 inches: moderately decomposed plant material
A - 3 to 6 inches: channery silt loam
BA - 6 to 10 inches: channery silt loam
Bw1 - 10 to 15 inches: channery silt loam
Bw2 - 15 to 23 inches: very channery silt loam
C - 23 to 37 inches: extremely channery silt loam
R - 37 to 47 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 22 to 39 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Ernest

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Rayne

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Weikert

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex

Across-slope shape: Convex
Hydric soil rating: No

Blairton

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

BeC—Berks channery silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2sftn
Elevation: 1,190 to 2,490 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Berks and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berks

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
Oe - 2 to 3 inches: moderately decomposed plant material
A - 3 to 6 inches: channery silt loam
BA - 6 to 10 inches: channery silt loam
Bw1 - 10 to 15 inches: channery silt loam
Bw2 - 15 to 23 inches: very channery silt loam
C - 23 to 37 inches: extremely channery silt loam
R - 37 to 47 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 22 to 39 inches to lithic bedrock
Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Rayne

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Weikert

Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ernest

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Blairton

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

BeD—Berks channery silt loam, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2sftp
Elevation: 1,260 to 2,610 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Berks and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berks

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
Oe - 2 to 3 inches: moderately decomposed plant material
A - 3 to 6 inches: channery silt loam
BA - 6 to 10 inches: channery silt loam
Bw1 - 10 to 15 inches: channery silt loam
Bw2 - 15 to 23 inches: very channery silt loam
C - 23 to 37 inches: extremely channery silt loam
R - 37 to 47 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 22 to 39 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Rayne

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Weikert

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Blairton

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Ernest

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope, base slope, head slope
Down-slope shape: Concave
Across-slope shape: Linear, concave
Hydric soil rating: No

BmB—Blairton silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5wd
Elevation: 300 to 2,690 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 120 to 214 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Blairton and similar soils: 90 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blairton

Setting

Landform: Depressions
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Head slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Local silty colluvium derived from shale and siltstone over acid silty residuum weathered from shale and siltstone

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 22 inches: channery silty clay loam
H3 - 22 to 26 inches: very channery loam
H4 - 26 to 30 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 6 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Brinkerton

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

BtB—Brinkerton soils, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2sgqs
Elevation: 790 to 2,830 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Brinkerton, wooded, and similar soils: 66 percent
Brinkerton, nonwooded, and similar soils: 19 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinkerton, Wooded

Setting

Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Parent material: Acid fine-silty colluvium derived from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 3 inches: mucky silt loam
Eg - 3 to 8 inches: silt loam
Btg - 8 to 21 inches: silty clay loam
Btxg - 21 to 42 inches: silt loam
BC - 42 to 65 inches: channery silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 17 to 30 inches to fragipan
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 2 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D

Hydric soil rating: Yes

Description of Brinkerton, Nonwooded

Setting

Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Parent material: Acid fine-silty colluvium derived from shale and siltstone

Typical profile

Ap - 0 to 8 inches: silt loam
Btg - 8 to 21 inches: silty clay loam
Btxg - 21 to 42 inches: silt loam
BC - 42 to 65 inches: channery silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 17 to 30 inches to fragipan
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Ernest

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Portville

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Philo

Percent of map unit: 5 percent

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear, convex
Across-slope shape: Linear
Other vegetative classification: Acid Loams (AL3)
Hydric soil rating: No

CaB—Cavode silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5wm
Elevation: 1,000 to 1,700 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Cavode and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cavode

Setting

Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, concave
Across-slope shape: Concave
Parent material: Acid clayey residuum weathered from clayey shale

Typical profile

Ap - 0 to 10 inches: silt loam
Btg - 10 to 47 inches: silty clay loam
BCg - 47 to 57 inches: channery silt loam
R - 57 to 61 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 40 to 90 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 10 percent
Landform: Hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Brinkerton

Percent of map unit: 5 percent
Landform: Draws, hills
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Hydric soil rating: Yes

CeB—Cookport and Ernest soils, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5wr
Elevation: 300 to 3,000 feet
Mean annual precipitation: 30 to 65 inches
Mean annual air temperature: 45 to 59 degrees F
Frost-free period: 110 to 214 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Cookport and similar soils: 65 percent
Ernest and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cookport

Setting

Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave

Across-slope shape: Concave
Parent material: Residuum weathered from acid sandstone

Typical profile

H1 - 0 to 14 inches: channery loam
H2 - 14 to 26 inches: channery loam
H3 - 26 to 40 inches: channery loam
H4 - 40 to 60 inches: channery sandy loam
H5 - 60 to 62 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches; 40 to 72 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Ernest

Setting

Landform: Hills
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from shale and siltstone

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 26 inches: silty clay loam
H3 - 26 to 41 inches: channery silt loam
H4 - 41 to 61 inches: channery silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 17 to 36 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 4 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Brinkerton
Percent of map unit: 10 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

CeC—Cookport and Ernest soils, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: l5ws
Elevation: 300 to 3,000 feet
Mean annual precipitation: 30 to 65 inches
Mean annual air temperature: 45 to 59 degrees F
Frost-free period: 110 to 214 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Cookport and similar soils: 70 percent
Ernest and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cookport

Setting
Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from acid sandstone

Typical profile
H1 - 0 to 14 inches: channery loam
H2 - 14 to 26 inches: channery loam
H3 - 26 to 40 inches: channery loam
H4 - 40 to 60 inches: channery sandy loam
H5 - 60 to 62 inches: bedrock

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches; 40 to 72 inches to lithic bedrock
Drainage class: Moderately well drained

Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Ernest

Setting

Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from shale and siltstone

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 26 inches: silty clay loam
H3 - 26 to 41 inches: channery silt loam
H4 - 41 to 61 inches: channery silt loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 17 to 36 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 4 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Brinkerton

Percent of map unit: 5 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

CvB—Cookport and Ernest very stony soils, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5wv
Elevation: 480 to 3,000 feet
Mean annual precipitation: 30 to 65 inches
Mean annual air temperature: 45 to 59 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Cookport and similar soils: 65 percent
Ernest and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cookport

Setting

Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from sandstone and siltstone

Typical profile

H1 - 0 to 10 inches: channery loam
H2 - 10 to 26 inches: channery loam
H3 - 26 to 40 inches: channery loam
H4 - 40 to 60 inches: channery sandy loam
H5 - 60 to 62 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches; 40 to 72 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C/D
Hydric soil rating: No

Description of Ernest

Setting

Landform: Hills
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from shale and siltstone

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 26 inches: silty clay loam
H3 - 26 to 41 inches: channery silt loam
H4 - 41 to 61 inches: channery silt loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 17 to 36 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 4 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Brinkerton

Percent of map unit: 10 percent
Landform: Depressions
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

CvD—Cookport and Ernest very stony soils, 8 to 25 percent slopes

Map Unit Setting

National map unit symbol: l5ww
Elevation: 480 to 3,000 feet
Mean annual precipitation: 30 to 65 inches
Mean annual air temperature: 34 to 59 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Cookport and similar soils: 70 percent
Ernest and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cookport

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from sandstone and siltstone

Typical profile

H1 - 0 to 10 inches: channery loam
H2 - 10 to 26 inches: channery loam
H3 - 26 to 40 inches: channery loam
H4 - 40 to 60 inches: channery sandy loam
H5 - 60 to 62 inches: bedrock

Properties and qualities

Slope: 8 to 25 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches; 40 to 72 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C/D
Hydric soil rating: No

Description of Ernest

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from shale and siltstone

Typical profile

H1 - 0 to 8 inches: channery silt loam
H2 - 8 to 26 inches: silty clay loam
H3 - 26 to 41 inches: channery silt loam
H4 - 41 to 61 inches: channery silt loam

Properties and qualities

Slope: 8 to 25 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 17 to 36 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 4 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Brinkerton

Percent of map unit: 5 percent
Landform: Depressions
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

GnB—Gilpin silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2sndw
Elevation: 1,100 to 2,910 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Gilpin and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Acid fine-loamy residuum weathered from shale and siltstone and/or fine-grained sandstone

Typical profile

Ap - 0 to 8 inches: silt loam
Bt - 8 to 24 inches: channery silt loam
C - 24 to 31 inches: very channery silt loam
R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 22 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Wharton

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Clymer

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cookport

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

GpB—Gilpin channery silt loam, 3 to 8 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2wsjd
Elevation: 1,330 to 3,180 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Gilpin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve

Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone and/or fine-grained sandstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 3 inches: channery silt loam
E - 3 to 7 inches: silt loam
Bt - 7 to 24 inches: channery silt loam
C - 24 to 31 inches: extremely channery silt loam
R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Rayne

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Acid Loams (AL3)
Hydric soil rating: No

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Cavode

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: No

Dekalb

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

GtC—Gilpin-Rayne silt loams, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: l5x3
Elevation: 1,390 to 2,770 feet
Mean annual precipitation: 37 to 65 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Gilpin and similar soils: 70 percent
Rayne and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Residuum weathered from interbedded sedimentary rock

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 28 inches: channery silty clay loam
H3 - 28 to 38 inches: very channery silt loam
H4 - 38 to 42 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Rayne

Setting

Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from interbedded sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 40 inches: channery silty clay loam
H3 - 40 to 60 inches: very channery silty clay loam
H4 - 60 to 64 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

GtD—Gilpin-Rayne silt loams, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: l5x4
Elevation: 1,380 to 2,820 feet
Mean annual precipitation: 37 to 65 inches

Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Gilpin and similar soils: 70 percent
Rayne and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Residuum weathered from interbedded sedimentary rock

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 28 inches: channery silty clay loam
H3 - 28 to 38 inches: very channery silt loam
H4 - 38 to 42 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Rayne

Setting

Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from interbedded sedimentary rock

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 40 inches: channery silty clay loam
H3 - 40 to 60 inches: very channery silty clay loam
H4 - 60 to 64 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

GwB—Gilpin-Weikert channery silt loams, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5x5
Elevation: 800 to 1,700 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Gilpin and similar soils: 60 percent
Weikert and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone

Typical profile

Ap - 0 to 8 inches: channery silt loam
Bt - 8 to 24 inches: channery silt loam
C - 24 to 30 inches: very channery loam
R - 30 to 35 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Weikert

Setting

Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid loamy residuum weathered from shale and siltstone

Typical profile

A - 0 to 5 inches: channery silt loam
Bw - 5 to 15 inches: very channery silt loam
C - 15 to 18 inches: extremely channery silt loam
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Wharton

Percent of map unit: 10 percent
Landform: Hills

Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

GwC—Gilpin-Weikert channery silt loams, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: l5x6
Elevation: 800 to 1,800 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Gilpin and similar soils: 50 percent
Weikert and similar soils: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Linear, convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone

Typical profile

Ap - 0 to 8 inches: channery silt loam
Bt - 8 to 24 inches: channery silt loam
C - 24 to 30 inches: very channery loam
R - 30 to 35 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Weikert

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid loamy residuum weathered from shale and siltstone

Typical profile

A - 0 to 5 inches: channery silt loam
Bw - 5 to 15 inches: very channery silt loam
C - 15 to 18 inches: extremely channery silt loam
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Ernest

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave

Across-slope shape: Concave
Hydric soil rating: No

GwD—Gilpin-Weikert channery silt loams, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: l5x7
Elevation: 800 to 1,800 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Gilpin and similar soils: 46 percent
Weikert and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid fine-loamy residuum weathered from shale and siltstone

Typical profile

Ap - 0 to 8 inches: channery silt loam
Bt - 8 to 24 inches: channery silt loam
C - 24 to 30 inches: very channery loam
R - 30 to 35 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C
Hydric soil rating: No

Description of Weikert

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid loamy residuum weathered from shale and siltstone

Typical profile

A - 0 to 5 inches: channery silt loam
Bw - 5 to 15 inches: very channery silt loam
C - 15 to 18 inches: extremely channery silt loam
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Ernest

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

GWF—Gilpin-Weikert channery silt loams, 25 to 70 percent slopes

Map Unit Setting

National map unit symbol: l5wz
Elevation: 800 to 1,700 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Gilpin and similar soils: 60 percent
Weikert and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 8 inches: channery silt loam
Bt - 8 to 24 inches: channery silt loam
C - 24 to 30 inches: very channery loam
R - 30 to 35 inches: bedrock

Properties and qualities

Slope: 25 to 60 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C
Hydric soil rating: No

Description of Weikert

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 5 inches: channery silt loam
Bw - 5 to 15 inches: very channery silt loam
C - 15 to 18 inches: extremely channery silt loam
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Shelocta

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear, convex
Hydric soil rating: No

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

HaB—Hazleton channery loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5x8
Elevation: 1,100 to 2,800 feet
Mean annual precipitation: 37 to 65 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hazleton and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Hillsides or mountainsides
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Mountaintop, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid sandy residuum weathered from noncalcareous sandstone

Typical profile

Ap - 0 to 6 inches: channery loam
Bw - 6 to 36 inches: very channery sandy loam
C - 36 to 54 inches: extremely channery loamy sand
R - 54 to 58 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.43 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 10 percent
Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

HaC—Hazleton channery loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: l5x9
Elevation: 1,100 to 2,800 feet
Mean annual precipitation: 37 to 65 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hazleton and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Hillsides or mountainsides
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Mountaintop, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid sandy residuum weathered from noncalcareous sandstone

Typical profile

Ap - 0 to 6 inches: channery loam
Bw - 6 to 36 inches: very channery sandy loam
C - 36 to 54 inches: extremely channery loamy sand
R - 54 to 58 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.43 to 6.00 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 10 percent
Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

HaD—Hazleton channery loam, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: l5xb
Elevation: 1,100 to 2,800 feet
Mean annual precipitation: 37 to 65 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Hazleton and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Hillsides or mountainsides
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Mountainflank, interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid sandy residuum weathered from noncalcareous sandstone

Typical profile

Ap - 0 to 6 inches: channery loam
Bw - 6 to 36 inches: very channery sandy loam
C - 36 to 54 inches: extremely channery loamy sand
R - 54 to 58 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.43 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 10 percent
Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

HbB—Hazleton channery sandy loam, 3 to 8 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: l5xc
Elevation: 1,150 to 2,800 feet
Mean annual precipitation: 35 to 54 inches
Mean annual air temperature: 37 to 58 degrees F
Frost-free period: 110 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Hazleton and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Hillsides or mountainsides
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountaintop, interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid sandy residuum weathered from noncalcareous sandstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 8 inches: channery sandy loam
Bw - 8 to 34 inches: very channery sandy loam
C - 34 to 58 inches: extremely channery sandy loam
R - 58 to 60 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.43 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Clymer

Percent of map unit: 15 percent
Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cookport

Percent of map unit: 10 percent
Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

HbD—Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: l5xd
Elevation: 1,070 to 2,800 feet
Mean annual precipitation: 35 to 54 inches
Mean annual air temperature: 37 to 58 degrees F
Frost-free period: 115 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Hazleton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Hillsides or mountainsides
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid sandy residuum weathered from noncalcareous sandstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 8 inches: channery sandy loam
Bw - 8 to 34 inches: very channery sandy loam
C - 34 to 58 inches: extremely channery sandy loam
R - 58 to 60 inches: bedrock

Properties and qualities

Slope: 8 to 25 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.43 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Clymer

Percent of map unit: 10 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Cookport

Percent of map unit: 10 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

LaB—Laidig loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5xh
Elevation: 400 to 3,800 feet
Mean annual precipitation: 34 to 60 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 120 to 175 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Laidig and similar soils: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Laidig

Setting

Landform: Mountains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Mountainbase
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Mountain slope fine-loamy colluvium derived from interbedded sedimentary rock

Typical profile

H1 - 0 to 7 inches: channery loam
H2 - 7 to 36 inches: channery loam

H3 - 36 to 50 inches: very channery sandy loam
H4 - 50 to 65 inches: channery sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 30 to 50 inches to fragipan
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 30 to 50 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

LDF—Laidig soils, 25 to 70 percent slopes

Map Unit Setting

National map unit symbol: l5xg
Elevation: 400 to 3,800 feet
Mean annual precipitation: 34 to 60 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 120 to 175 days
Farmland classification: Not prime farmland

Map Unit Composition

Laidig and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Laidig

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainbase
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Mountain slope fine-loamy colluvium derived from interbedded sedimentary rock

Typical profile

H1 - 0 to 7 inches: channery loam
H2 - 7 to 36 inches: channery loam
H3 - 36 to 50 inches: very channery sandy loam
H4 - 50 to 65 inches: channery sandy loam

Properties and qualities

Slope: 25 to 70 percent
Depth to restrictive feature: 30 to 50 inches to fragipan
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 28 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

NoB—Nolo very stony sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: l5xp
Elevation: 1,430 to 2,840 feet
Mean annual precipitation: 37 to 65 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Nolo and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nolo

Setting

Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from sandstone

Typical profile

H1 - 0 to 6 inches: channery loam
H2 - 6 to 19 inches: channery clay loam
H3 - 19 to 60 inches: channery sandy clay loam
H4 - 60 to 64 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches; 40 to 72 inches to lithic bedrock
Drainage class: Poorly drained
Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: Yes

UDC—Udorthents, strip mine, sloping

Map Unit Setting

National map unit symbol: l5xw
Elevation: 800 to 2,800 feet
Mean annual precipitation: 36 to 54 inches
Mean annual air temperature: 37 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Bethesda, unstable fill, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bethesda, Unstable Fill

Setting

Landform: Plateaus
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid loamy coal extraction mine spoil derived from interbedded sedimentary rock

Typical profile

A - 0 to 7 inches: very channery silt loam
C - 7 to 65 inches: extremely channery silt loam

Properties and qualities

Slope: 8 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Wharton

Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Aquents

Percent of map unit: 1 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

UDF—Udorthents, strip mine, steep

Map Unit Setting

National map unit symbol: l5xx
Elevation: 800 to 1,700 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Bethesda, unstable fill, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bethesda, Unstable Fill

Setting

Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid loamy coal extraction mine spoil derived from interbedded sedimentary rock

Typical profile

A - 0 to 7 inches: very channery silt loam
C - 7 to 65 inches: extremely channery silt loam

Properties and qualities

Slope: 25 to 75 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

WaB—Wharton silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2vxhr
Elevation: 1,030 to 2,910 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Wharton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wharton

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: silt loam
BA - 4 to 8 inches: silt loam
Bt1 - 8 to 21 inches: silt loam
Bt2 - 21 to 42 inches: silty clay loam
Bt3 - 42 to 52 inches: channery silty clay loam
C - 52 to 69 inches: very channery silty clay loam
R - 69 to 79 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 46 to 80 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 14 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Gilpin
Percent of map unit: 8 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Armagh
Percent of map unit: 5 percent
Landform: Depressions on hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Hydric soil rating: Yes

Ernest
Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Cavode
Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

WaC—Wharton silt loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2sfv6
Elevation: 840 to 2,830 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wharton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wharton

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: silt loam
BA - 4 to 8 inches: silt loam
Bt1 - 8 to 21 inches: silt loam
Bt2 - 21 to 42 inches: silty clay loam
Bt3 - 42 to 52 inches: channery silty clay loam
C - 52 to 69 inches: very channery silty clay loam
R - 69 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 46 to 80 inches to lithic bedrock
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 14 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 8 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Ernest

Percent of map unit: 5 percent

Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Cavode

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Brinkerton

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

WgC—Wharton-Gilpin complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2vxhw
Elevation: 1,180 to 2,630 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wharton and similar soils: 50 percent
Gilpin and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wharton

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: silt loam
BA - 4 to 8 inches: silt loam
Bt1 - 8 to 21 inches: silt loam
Bt2 - 21 to 42 inches: silty clay loam
Bt3 - 42 to 52 inches: channery silty clay loam
C - 52 to 69 inches: very channery silty clay loam
R - 69 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 46 to 80 inches to lithic bedrock
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 14 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone and/or fine-grained sandstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 3 inches: channery silt loam
E - 3 to 7 inches: silt loam
Bt - 7 to 24 inches: channery silt loam
C - 24 to 31 inches: extremely channery silt loam
R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Rayne

Percent of map unit: 9 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cavode

Percent of map unit: 6 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

WgD—Wharton-Gilpin complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2vxht
Elevation: 1,160 to 2,500 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Wharton and similar soils: 50 percent
Gilpin and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wharton

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: silt loam
BA - 4 to 8 inches: silt loam
Bt1 - 8 to 21 inches: silt loam
Bt2 - 21 to 42 inches: silty clay loam
Bt3 - 42 to 52 inches: channery silty clay loam
C - 52 to 69 inches: very channery silty clay loam
R - 69 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 46 to 80 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 14 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Acid fine-loamy residuum weathered from shale and siltstone and/or fine-grained sandstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 3 inches: channery silt loam
E - 3 to 7 inches: silt loam
Bt - 7 to 24 inches: channery silt loam
C - 24 to 31 inches: extremely channery silt loam
R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Drainage class: Well drained

Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Rayne

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cavode

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Clearfield County, Pennsylvania

92B—Bethesda very channery silt loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1lrzk
Elevation: 800 to 2,800 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 37 to 62 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Bethesda, unstable fill, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bethesda, Unstable Fill

Setting

Landform: Plateaus
Landform position (two-dimensional): Shoulder
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid loamy coal extraction mine spoil derived from interbedded sedimentary rock

Typical profile

A - 0 to 7 inches: very channery silt loam
C - 7 to 65 inches: extremely channery silt loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve

Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Wharton

Percent of map unit: 4 percent
Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Aquents

Percent of map unit: 1 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

92D—Bethesda very channery silt loam, 8 to 25 percent slopes

Map Unit Setting

National map unit symbol: 1lrzl
Elevation: 800 to 2,800 feet
Mean annual precipitation: 36 to 54 inches
Mean annual air temperature: 37 to 62 degrees F
Frost-free period: 130 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Bethesda, unstable fill, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bethesda, Unstable Fill

Setting

Landform: Plateaus
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Acid loamy coal extraction mine spoil derived from interbedded sedimentary rock

Typical profile

A - 0 to 7 inches: very channery silt loam
C - 7 to 65 inches: extremely channery silt loam

Properties and qualities

Slope: 8 to 25 percent

Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Wharton

Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Aquents

Percent of map unit: 1 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

95D—Cedarcreek extremely channery loam, moderately steep

Map Unit Setting

National map unit symbol: 1lrzr
Elevation: 870 to 2,250 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 110 to 170 days

Farmland classification: Not prime farmland

Map Unit Composition

Cedarcreek, unstable fill, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cedarcreek, Unstable Fill

Setting

Landform: Upland slopes
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mine spoil or earthy fill derived from sandstone and shale

Typical profile

C1 - 0 to 24 inches: extremely channery loam
C2 - 24 to 70 inches: extremely channery silty clay loam

Properties and qualities

Slope: 15 to 50 percent
Depth to restrictive feature: 61 to 120 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 6.00 in/hr)
Depth to water table: About 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Head slope, interfluve
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Gilpin

Percent of map unit: 5 percent
Hydric soil rating: No

Cedarcreek, moderately sloping

Percent of map unit: 5 percent
Landform: Upland slopes
Landform position (two-dimensional): Summit, backslope, shoulder
Down-slope shape: Convex

Across-slope shape: Convex
Hydric soil rating: No

BvD—Buchanan silt loam, 8 to 25 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2stxx
Elevation: 830 to 2,330 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Buchanan and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buchanan

Setting

Landform: Hillslopes
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Loamy colluvium derived from sandstone and shale

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 3 inches: silt loam
E - 3 to 5 inches: silt loam
BE - 5 to 12 inches: silt loam
Bt - 12 to 28 inches: channery loam
Btx - 28 to 59 inches: very channery loam
C - 59 to 80 inches: very channery loam

Properties and qualities

Slope: 8 to 25 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 21 to 33 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 16 to 27 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Hartleton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Linear
Hydric soil rating: No

Portville

Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Philo

Percent of map unit: 3 percent
Landform: Mountain valleys, flood plains
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Mountainbase, base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Brinkerton, wooded

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

CoB—Cookport channery loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2wshg
Elevation: 1,190 to 3,110 feet
Mean annual precipitation: 38 to 50 inches

Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Cookport and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cookport

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave, linear
Across-slope shape: Linear
Parent material: Acid fine-loamy residuum weathered from sandstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: channery loam
E - 4 to 8 inches: channery loam
Bt - 8 to 23 inches: channery loam
Btx - 23 to 40 inches: channery sandy clay loam
C - 40 to 46 inches: channery sandy loam
R - 46 to 56 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 16 to 30 inches to fragipan; 40 to 72 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 0.20 in/hr)
Depth to water table: About 15 to 21 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Hazleton

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex, linear, concave

Hydric soil rating: No

Nolo

Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Interfluve, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

CoC—Cookport channery loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wshp
Elevation: 1,060 to 2,920 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Cookport and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cookport

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave, linear
Across-slope shape: Linear
Parent material: Acid fine-loamy residuum weathered from sandstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: channery loam
E - 4 to 8 inches: channery loam
Bt - 8 to 23 inches: channery loam
Btx - 23 to 40 inches: channery sandy clay loam
C - 40 to 46 inches: channery sandy loam
R - 46 to 56 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 16 to 30 inches to fragipan; 40 to 72 inches to lithic bedrock
Drainage class: Moderately well drained

Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 0.20 in/hr)
Depth to water table: About 15 to 21 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Hazleton

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Nolo

Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Interfluve, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

ErC—Ernest silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2sgqy
Elevation: 720 to 3,030 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ernest and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ernest

Setting

Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Acid fine-loamy colluvium derived from shale and siltstone

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 4 inches: silt loam
E - 4 to 7 inches: silt loam
BE - 7 to 11 inches: silt loam
Bt - 11 to 23 inches: silty clay loam
Btx - 23 to 56 inches: channery loam
C - 56 to 65 inches: channery silt loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 17 to 30 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 15 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Lobdell

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Brinkerton, wooded

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

GIB—Gilpin channery silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2snf5
Elevation: 1,030 to 3,070 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Gilpin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone and/or fine-grained sandstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 3 inches: channery silt loam
E - 3 to 7 inches: silt loam
Bt - 7 to 24 inches: channery silt loam
C - 24 to 31 inches: extremely channery silt loam
R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, concave
Across-slope shape: Linear
Hydric soil rating: No

Rayne

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cavode

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: No

Dekalb

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Other vegetative classification: Very Rocky, Acid Soils (RA3)
Hydric soil rating: No

GIC—Gilpin channery silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2snf7
Elevation: 810 to 3,150 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Gilpin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone and/or fine-grained sandstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 3 inches: channery silt loam
E - 3 to 7 inches: silt loam
Bt - 7 to 24 inches: channery silt loam
C - 24 to 31 inches: extremely channery silt loam
R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Rayne

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Wharton

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear, concave
Hydric soil rating: No

Cavode

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Dekalb

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Very Rocky, Acid Soils (RA3)
Hydric soil rating: No

HbD—Hazleton very stony loam, 8 to 25 percent slopes

Map Unit Setting

National map unit symbol: l2d3
Elevation: 1,100 to 2,500 feet
Mean annual precipitation: 36 to 55 inches
Mean annual air temperature: 46 to 55 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Hazleton and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Upper third of mountainflank, mountaintop
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from acid sandstone

Typical profile

H1 - 0 to 4 inches: channery loam
H2 - 4 to 46 inches: very channery loam
H3 - 46 to 55 inches: extremely channery sandy loam
H4 - 55 to 59 inches: bedrock

Properties and qualities

Slope: 8 to 25 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 40 to 80 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 5 percent
Hydric soil rating: No

HbF—Hazleton very stony loam, 25 to 80 percent slopes

Map Unit Setting

National map unit symbol: l2d4

Elevation: 1,100 to 2,500 feet
Mean annual precipitation: 36 to 55 inches
Mean annual air temperature: 46 to 55 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Hazleton and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Upper third of mountainflank, mountaintop
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from acid sandstone

Typical profile

H1 - 0 to 4 inches: channery loam
H2 - 4 to 46 inches: very channery loam
H3 - 46 to 55 inches: extremely channery sandy loam
H4 - 55 to 59 inches: bedrock

Properties and qualities

Slope: 25 to 80 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 40 to 80 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 5 percent
Hydric soil rating: No

HcC—Hazleton-Clymer channery loams, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: l2d6
Elevation: 400 to 3,800 feet
Mean annual precipitation: 34 to 60 inches
Mean annual air temperature: 46 to 59 degrees F
Frost-free period: 110 to 175 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hazleton and similar soils: 41 percent
Clymer and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Mountains
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone

Typical profile

A - 0 to 3 inches: channery sandy loam
Bw - 3 to 42 inches: channery sandy loam
C - 42 to 58 inches: very channery sandy loam
R - 58 to 68 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 40 to 80 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Clymer

Setting

Landform: Ridges on plateaus
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone and shale

Typical profile

A - 0 to 2 inches: loam
Bt - 2 to 28 inches: channery loam
C - 28 to 50 inches: channery sandy loam
R - 50 to 60 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Cookport

Percent of map unit: 10 percent
Landform: Ridges on plateaus
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Upper third of mountainflank
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Laidig

Percent of map unit: 5 percent
Landform: Mountains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Lower third of mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Buchanan

Percent of map unit: 5 percent
Hydric soil rating: No

HdB—Hazleton-Clymer very stony loams, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: l2d7
Elevation: 800 to 2,900 feet
Mean annual precipitation: 36 to 60 inches
Mean annual air temperature: 46 to 59 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Hazleton and similar soils: 60 percent
Clymer and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hazleton

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Upper third of mountainflank, mountaintop
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone

Typical profile

H1 - 0 to 4 inches: channery loam
H2 - 4 to 46 inches: very channery loam
H3 - 46 to 55 inches: extremely channery sandy loam
H4 - 55 to 59 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 40 to 80 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Clymer

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Upper third of mountainflank, mountaintop
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone

Typical profile

H1 - 0 to 7 inches: channery loam
H2 - 7 to 38 inches: channery loam
H3 - 38 to 49 inches: very channery loam
H4 - 49 to 53 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Ph—Philo silt loam, 0 to 3 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 2sfst
Elevation: 760 to 2,570 feet
Mean annual precipitation: 38 to 67 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 123 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Philo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Philo

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy alluvium derived from sandstone and shale

Typical profile

Ap - 0 to 6 inches: silt loam
Bw1 - 6 to 16 inches: loam
Bw2 - 16 to 22 inches: loam
C1 - 22 to 42 inches: sandy loam
2C2 - 42 to 80 inches: stratified gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 16 to 22 inches
Frequency of flooding: NoneOccasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Hydric soil rating: No

Minor Components

Atkins, moist

Percent of map unit: 10 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Pope

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

RbF—Rayne channery silt loam, 25 to 65 percent slopes

Map Unit Setting

National map unit symbol: l2dl
Elevation: 870 to 2,350 feet
Mean annual precipitation: 37 to 65 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Rayne and similar soils: 90 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rayne

Setting

Landform: Mountains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from shale and siltstone

Typical profile

H1 - 0 to 9 inches: channery silt loam
H2 - 9 to 38 inches: channery silt loam
H3 - 38 to 60 inches: very channery silt loam
H4 - 60 to 64 inches: bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Wharton

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Interfluve, side slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

RcD—Rayne-Gilpin complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: l2dm
Elevation: 800 to 2,500 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Rayne and similar soils: 45 percent
Gilpin and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rayne

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from sandstone and siltstone

Typical profile

Ap - 0 to 8 inches: channery silt loam
Bt - 8 to 47 inches: channery silty clay loam
C - 47 to 55 inches: channery sandy loam
R - 55 to 59 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 40 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Gilpin

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid fine-loamy residuum weathered from shale and siltstone

Typical profile

Ap - 0 to 6 inches: channery silt loam
Bt - 6 to 24 inches: channery silt loam
C - 24 to 28 inches: channery sandy loam
R - 28 to 34 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Wharton

Percent of map unit: 15 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

TyB—Tyler silt loam, 3 to 6 percent slopes

Map Unit Setting

National map unit symbol: l2dq
Elevation: 300 to 2,000 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 48 to 59 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Tyler and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tyler

Setting

Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 7 inches: silt loam
H2 - 7 to 20 inches: silt loam
H3 - 20 to 61 inches: silty clay loam
H4 - 61 to 65 inches: stratified gravelly loam to silty clay loam

Properties and qualities

Slope: 3 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Purdy

Percent of map unit: 10 percent
Landform: Depressions
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

W—Water

Map Unit Setting

National map unit symbol: l2dw
Mean annual precipitation: 36 to 50 inches
Mean annual air temperature: 46 to 59 degrees F
Frost-free period: 120 to 214 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Parent material: Rivers streams ponds

Properties and qualities

Runoff class: Negligible
Frequency of ponding: Frequent

WhB—Wharton silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2vxhr
Elevation: 1,030 to 2,910 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Wharton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wharton

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: silt loam
BA - 4 to 8 inches: silt loam
Bt1 - 8 to 21 inches: silt loam
Bt2 - 21 to 42 inches: silty clay loam
Bt3 - 42 to 52 inches: channery silty clay loam
C - 52 to 69 inches: very channery silty clay loam
R - 69 to 79 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 46 to 80 inches to lithic bedrock
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 14 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 8 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Armagh

Percent of map unit: 5 percent
Landform: Depressions on hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, concave

Across-slope shape: Linear, concave
Hydric soil rating: Yes

Ernest

Percent of map unit: 4 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Cavode

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

WhC—Wharton silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2sfv6
Elevation: 840 to 2,830 feet
Mean annual precipitation: 38 to 50 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 126 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wharton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wharton

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: silt loam
BA - 4 to 8 inches: silt loam

Bt1 - 8 to 21 inches: silt loam
Bt2 - 21 to 42 inches: silty clay loam
Bt3 - 42 to 52 inches: channery silty clay loam
C - 52 to 69 inches: very channery silty clay loam
R - 69 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 46 to 80 inches to lithic bedrock
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 14 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Gilpin

Percent of map unit: 8 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Ernest

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Cavode

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Brinkerton

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope

Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Rating by Map Unit

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.

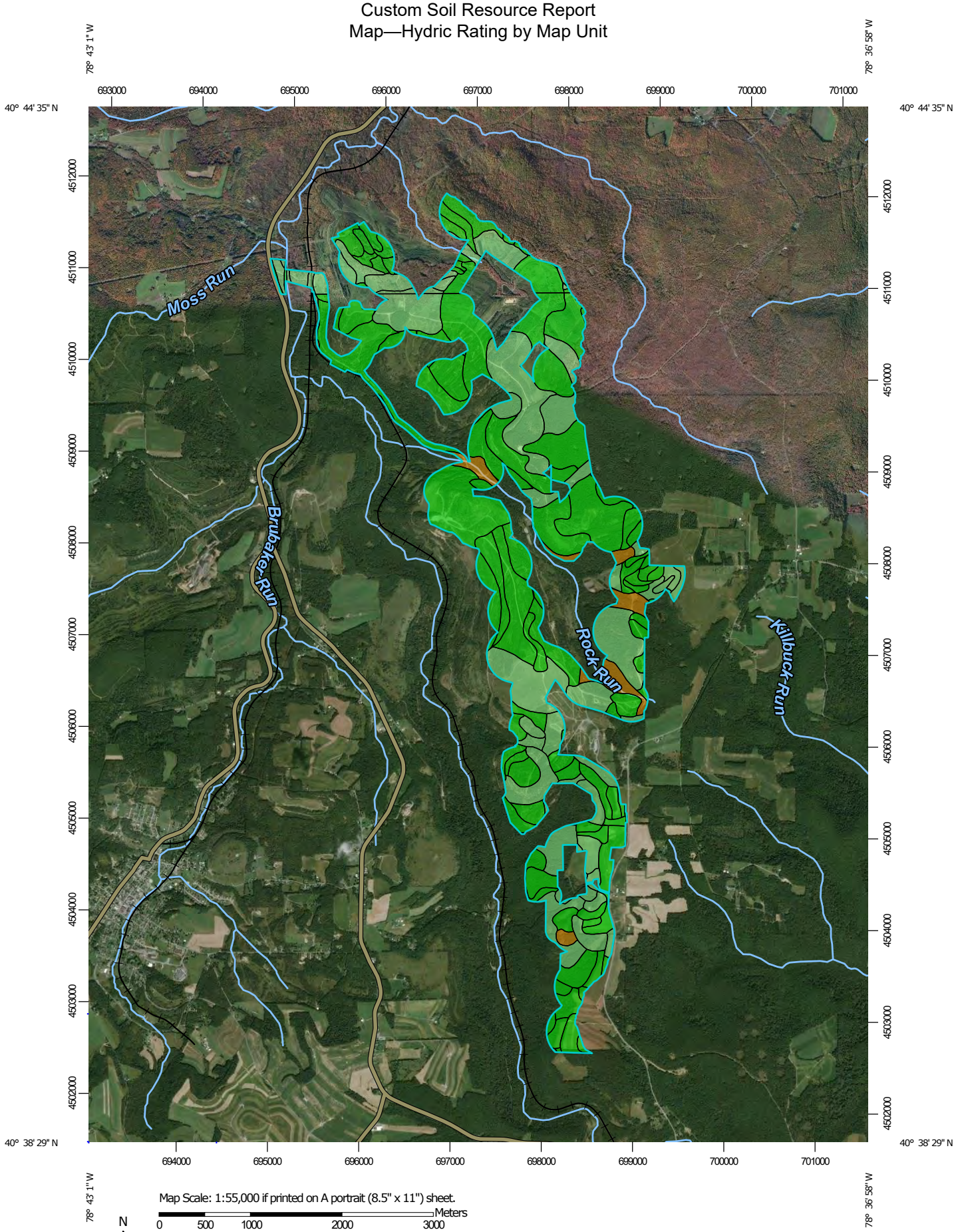
Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

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.

Map—Hydric Rating by Map Unit



Map Scale: 1:55,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 500 1000 2000 3000

Feet
0 2500 5000 10000 15000

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 1:20,000.

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: Cambria County, Pennsylvania
Survey Area Data: Version 16, Jun 5, 2020

Soil Survey Area: Clearfield County, Pennsylvania
Survey Area Data: Version 18, Jun 5, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Oct 6, 2011—Sep 20, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
At	Atkins silt loam, 0 to 3 percent slopes, frequently flooded	85	0.5	0.0%
BeB	Berks channery silt loam, 3 to 8 percent slopes	0	12.6	0.5%
BeC	Berks channery silt loam, 8 to 15 percent slopes	0	25.5	1.0%
BeD	Berks channery silt loam, 15 to 25 percent slopes	0	41.5	1.6%
BmB	Blairton silt loam, 3 to 8 percent slopes	5	4.5	0.2%
BtB	Brinkerton soils, 3 to 8 percent slopes	85	8.6	0.3%
CaB	Cavode silt loam, 3 to 8 percent slopes	5	37.8	1.5%
CeB	Cookport and Ernest soils, 3 to 8 percent slopes	10	46.2	1.8%
CeC	Cookport and Ernest soils, 8 to 15 percent slopes	5	21.9	0.9%
CvB	Cookport and Ernest very stony soils, 0 to 8 percent slopes	10	171.3	6.7%
CvD	Cookport and Ernest very stony soils, 8 to 25 percent slopes	5	82.9	3.2%
GnB	Gilpin silt loam, 3 to 8 percent slopes	0	33.1	1.3%
GpB	Gilpin channery silt loam, 3 to 8 percent slopes, extremely stony	0	6.6	0.3%
GtC	Gilpin-Rayne silt loams, 8 to 15 percent slopes	0	71.4	2.8%
GtD	Gilpin-Rayne silt loams, 15 to 25 percent slopes	0	17.1	0.7%
GwB	Gilpin-Weikert channery silt loams, 3 to 8 percent slopes	0	114.5	4.5%
GwC	Gilpin-Weikert channery silt loams, 8 to 15 percent slopes	0	45.3	1.8%
GwD	Gilpin-Weikert channery silt loams, 15 to 25 percent slopes	0	32.7	1.3%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GWF	Gilpin-Weikert channery silt loams, 25 to 70 percent slopes	0	191.3	7.5%
HaB	Hazleton channery loam, 3 to 8 percent slopes	0	72.7	2.8%
HaC	Hazleton channery loam, 8 to 15 percent slopes	0	15.3	0.6%
HaD	Hazleton channery loam, 15 to 25 percent slopes	0	25.9	1.0%
HbB	Hazleton channery sandy loam, 3 to 8 percent slopes, extremely stony	0	115.4	4.5%
HbD	Hazleton channery sandy loam, 8 to 25 percent slopes, extremely stony	0	105.1	4.1%
LaB	Laidig loam, 3 to 8 percent slopes	0	5.0	0.2%
LDF	Laidig soils, 25 to 70 percent slopes	0	72.2	2.8%
NoB	Nolo very stony sandy loam, 0 to 8 percent slopes	90	74.3	2.9%
UDC	Udorthents, strip mine, sloping	1	367.0	14.3%
UDF	Udorthents, strip mine, steep	0	409.5	16.0%
WaB	Wharton silt loam, 3 to 8 percent slopes	5	11.0	0.4%
WaC	Wharton silt loam, 8 to 15 percent slopes	2	6.1	0.2%
WgC	Wharton-Gilpin complex, 8 to 15 percent slopes	0	29.8	1.2%
WgD	Wharton-Gilpin complex, 15 to 25 percent slopes	0	9.0	0.3%
Subtotals for Soil Survey Area			**2,283.6**	**89.0%**
Totals for Area of Interest			**2,567.2**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
92B	Bethesda very channery silt loam, 0 to 8 percent slopes	1	31.4	1.2%
92D	Bethesda very channery silt loam, 8 to 25 percent slopes	1	16.4	0.6%
95D	Cedarcreek extremely channery loam, moderately steep	0	47.4	1.8%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BvD	Buchanan silt loam, 8 to 25 percent slopes, extremely stony	3	13.6	0.5%
CoB	Cookport channery loam, 3 to 8 percent slopes	5	7.3	0.3%
CoC	Cookport channery loam, 8 to 15 percent slopes	5	6.7	0.3%
ErC	Ernest silt loam, 8 to 15 percent slopes	5	2.8	0.1%
GlB	Gilpin channery silt loam, 3 to 8 percent slopes	0	13.0	0.5%
GlC	Gilpin channery silt loam, 8 to 15 percent slopes	0	1.8	0.1%
HbD	Hazleton very stony loam, 8 to 25 percent slopes	0	15.9	0.6%
HbF	Hazleton very stony loam, 25 to 80 percent slopes	0	8.0	0.3%
HcC	Hazleton-Clymer channery loams, 8 to 15 percent slopes	0	7.9	0.3%
HdB	Hazleton-Clymer very stony loams, 0 to 8 percent slopes	0	24.8	1.0%
Ph	Philo silt loam, 0 to 3 percent slopes, occasionally flooded	10	1.1	0.0%
RbF	Rayne channery silt loam, 25 to 65 percent slopes	0	26.1	1.0%
RcD	Rayne-Gilpin complex, 15 to 25 percent slopes	0	11.6	0.5%
TyB	Tyler silt loam, 3 to 6 percent slopes	10	8.1	0.3%
W	Water	0	1.4	0.1%
WhB	Wharton silt loam, 3 to 8 percent slopes	5	22.5	0.9%
WhC	Wharton silt loam, 8 to 15 percent slopes	2	15.9	0.6%
Subtotals for Soil Survey Area			**283.7**	**11.0%**
Totals for Area of Interest			**2,567.2**	**100.0%**

Rating Options—Hydric Rating by Map Unit

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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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.

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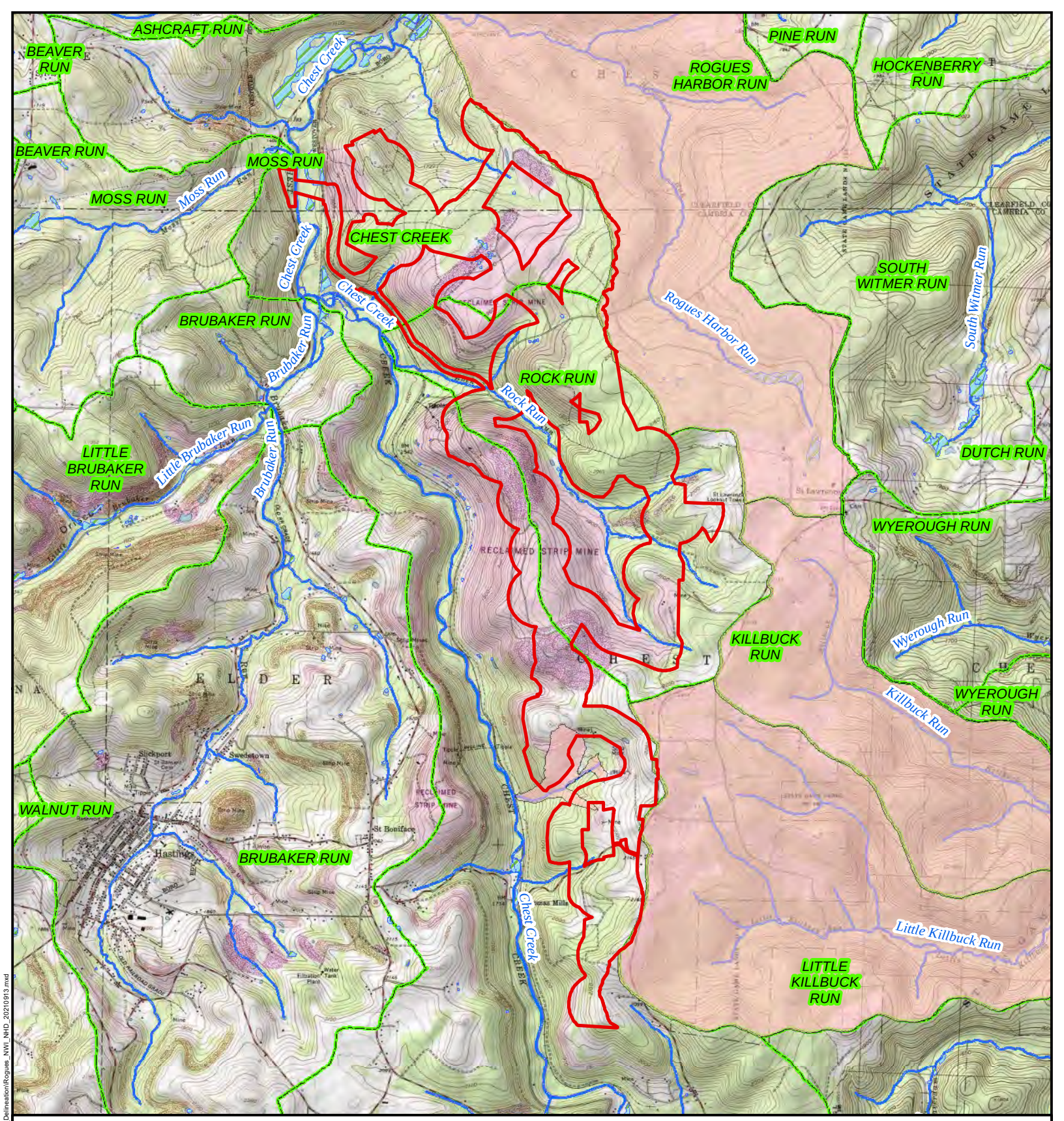
United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Attachment 4. National Wetlands Inventory Map.



Rogue's Wind Energy Project Cambria and Clearfield Counties, Pennsylvania

- Wetland Study Area (2,567 acres)
- Special Protection Watersheds
- NWI Mapped Wetlands
- Streams
- Watersheds

N
W E
S

1:50,000

0 1
Kilometers

0 1
Miles

TRC

G:\ProjectFiles\19000s\19087_Rogues Wind_PA\GIS\Maps\Wetlands\Wetland_Delineation\Rogues_NWI_NHD_20210913.mxd

Attachment 5. Field Data Sheets.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_B1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.72351 | Long.: -78.686669 | Datum: NAD83

Soil Map Unit Name: GWF; Gilpin-Weikert channery silt loams, 25-70% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	X	No	____	Depth (inches):	0
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_B1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Salix bebbiana*	20	Y	FACW
2 *Alnus glutinosa*	5	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	25 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Symphyotrichum lanceolatum*	5	N	FACW
2 *Solidago canadensis*	10	N	FACU
3 *Solidago gigantea*	15	N	FACW
4 *Juncus effusus*	35	Y	FACW
5 *Rumex crispus*	10	N	FAC
6 *Impatiens capensis*	15	N	FACW
7 *Typha latifolia*	20	Y	OBL
8 *Vicia sativa*	5	N	FACU
9			
10			
11			
12			
13			
14			
15			
	115 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	95	x 2 =	190
FAC species	10	x 3 =	30
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column totals	140 (A)		300 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_B1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	10YR 2/1	100					Silty clay loam	Mucky mineral
2-6	10YR 4/1						Silty clay loam	some mixing
6-14	10YR 4/1	75	2.5Y 6/6	15	C	M	Silty clay loam	small pebbles & rocks oberved
			10YR 5/8	10	C	M		

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 14

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_B1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Linear

Slope (%): 15% | Lat.: 40.723502 | Long.: -78.686785 | Datum: NAD83

Soil Map Unit Name: GWF; Gilpin-Weikert channery silt loams, 25-70% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

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):		
Water table present?	Yes ____	No x	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No x	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_B1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Fagus grandifolia*	10	Y	FACU
2 *Robinia pseudoacacia*	10	Y	FACU
3 *Alnus glutinosa*	5	Y	FACW
4			
5			
6			
7			
8			
9			
10			
	25 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rhamnus cathartica*	5	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	5 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Solidago canadensis*	25	Y	FACU
2 *Solidago altissima*	20	Y	FACU
3 *Rubus idaeus*	5	N	FAC
4 *Schizachne purpurascens*	40	Y	FACU
5 *Taraxacum officinale*	10	N	FACU
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 14% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	120	x 4 =	480
UPL species	0	x 5 =	0
Column totals	130 (A)		505 (B)

Prevalence Index = B/A = 3.88

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_B1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-7	10YR 3/2	100					Loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 7

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_E1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 20% | Lat.: 40.706018 | Long.: -78.671785 | Datum: NAD83

Soil Map Unit Name: UDF: Udorthents, strip mine, sloping | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM), "sloped" wetland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- X 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)
- X Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	X	No	____	Depth (inches):	1
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_E1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	60	Y	OBL
2 *Glyceria striata*	30	Y	OBL
3 *Solidago gigantea*	10	N	FACW
4 *Lemna minor*	5	N	OBL
5 *Scirpus cyperinus*	5	N	FACW
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	110 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	110 (A)		125 (B)

Prevalence Index = B/A = 1.14

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_E1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	2.5Y 3/1	100					Sandy clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 4

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_E1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Backslope | Local relief (concave, convex, none): Convex, Linear

Slope (%): 100% | Lat.: 40.705973 | Long.: -78.671749 | Datum: NAD83

Soil Map Unit Name: UDF: Udorthents, strip mine, sloping | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area, at the edge of a strip mine dump. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No x	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No x	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_E1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rhus typina*	5	Y	UPL
2			
3			
4			
5			
6			
7			
8			
9			
10			
	5 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rosa multiflora*	30	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	30 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Solidago canadensis*	50	Y	FACU
2 *Solidago gigantea*	15	N	FACW
3 *Vicia sativa*	20	Y	FACU
4 *Dactylis glomerata*	30	Y	FACU
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	115 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	130	x 4 =	520
UPL species	5	x 5 =	25
Column totals	150 (A)		575 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_E1

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

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

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 2

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_C1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.717232 | Long.: -78.681493 | Datum: NAD83

Soil Map Unit Name: GWF; Gilpin-Weikert channery silt loams, 25-70% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Forested Wetland (PFO) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)
- X Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	X	No	____	Depth (inches):	8
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_C1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Platanus occidentalis*	20	Y	FACW
2 *Carya laciniosa*	10	Y	FAC
3			
4			
5			
6			
7			
8			
9			
10			
	30 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carya laciniosa*	15	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	15 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Sanguinaria canadensis*	20	Y	UPL
2 *Equisetum arvense*	40	Y	FAC
3 *Symphyotrichum lanceolatum*	10	N	FACW
4 *Carex lupulina*	30	Y	OBL
5 *Typha latifolia*	10	N	OBL
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	110 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	30	x 2 =	60
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column totals	155 (A)		395 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_C1

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100	7.5YR 4/6	10	C	M	Silty clay loam	
6-10	2.5YR 4/2	75	7.5YR 4/6	15	C	M	Silty clay loam	some mixing
			7.5YR 6/6	20	C	M		

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 10

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_C1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Backslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 40% | Lat.: 40.717192 | Long.: -78.681364 | Datum: NAD83

Soil Map Unit Name: GWF; Gilpin-Weikert channery silt loams, 25-70% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No	If yes, optional Wetland Site ID:	
Wetland hydrology present?	No		

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area, at edge of strip mine road. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_C1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Liriodendron tulipifera*	25	Y	UPL
2 *Quercus rubra*	20	Y	FACU
3 *Prunus serotina*	10	N	FACU
4 *Alnus glutinosa*	30	Y	FACW
5			
6			
7			
8			
9			
10			
	85 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carya laciniosa*	15	Y	FAC
2 *Fagus grandifolia*	10	Y	FACU
3 *Rubus paviflorus*	10	Y	UPL
4			
5			
6			
7			
8			
9			
10			
	35 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Schizachne purpurascens*	20	Y	FACU
2 *Solidago caesia*	15	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	35 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Toxicodendron radicans*	10	Y	FAC
2			
3			
4			
5			
	10 =	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: 9 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	25	x 3 =	75
FACU species	75	x 4 =	300
UPL species	35	x 5 =	175
Column totals	165 (A)		610 (B)

Prevalence Index = B/A = 3.70

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_C1

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

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

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 3

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/9/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_Z1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.714786 | Long.: -78.661858 | Datum: NAD83

Soil Map Unit Name: CvB; Cookport and Ernest very stoney soils, 0-8% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Forested Wetland (PFO) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)
- X Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_Z1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	50	Y	FAC
2 *Carya laciniosa*	20	Y	FAC
3 *Populus tremuloides*	10	N	FAC
4 *Fraxinus pennsylvanica*	10	N	FACW
5			
6			
7			
8			
9			
10			
	90 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carya laciniosa*	20	Y	FAC
2 *Sassafras albidum*	10	Y	FACU
3 *Rosa multiflora*	5	N	FACU
4			
5			
6			
7			
8			
9			
10			
	35 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Matteuccia struthiopteris*	20	Y	FACW
2 *Onoclea sensibilis*	10	N	FACW
3 *Symphyotrichum lanceolatum*	5	N	FACW
4 *Pilea pumila*	40	Y	FACW
5 *Sphagnum magellanicum*	10	N	OBL
6 *Fragaria vesca*	5	N	FACU
7 *Carex lupulina*	15	N	OBL
8			
9			
10			
11			
12			
13			
14			
15			
	105 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	85	x 2 =	170
FAC species	100	x 3 =	300
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column totals	230 (A)		575 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_Z1

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	2.5Y 4/1	90	2.5Y 5/6	10	C	M	Silty clay loam	
4-10	N 4/	85	10YR 5/8	15	C	M	Silty clay loam	some mixing with shale
10-19	2.5Y 5/3	90	7.5YR 5/6	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)**
- X Loamy Gleyed Matrix (F2)
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 19

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/6/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_Z1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Linear

Slope (%): 60% | Lat.: 40.715004 | Long.: -78.66166 | Datum: NAD83

Soil Map Unit Name: CvB; Cookport and Ernest very stoney soils, 0-8% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area, approximently 4' above in elevation from nearby wetland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_Z1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Liriodendron tulipifera*	40	Y	UPL
2 *Acer rubrum*	40	Y	FAC
3 *Larix laricina*	15	N	FACW
4 *Pinus strobus*	15	N	FACU
5			
6			
7			
8			
9			
10			
	110 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	15	Y	FACW
2 *Acer rubrum*	10	N	FAC
3 *Carya laciniosa*	30	Y	UPL
4			
5			
6			
7			
8			
9			
10			
	55 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Schizachne purpurascens*	30	Y	FACU
2 *Rubus idaeus*	15	Y	FAC
3 *Dichanthelium clandestinum*	5	N	FAC
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	50 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	70	x 3 =	210
FACU species	45	x 4 =	180
UPL species	70	x 5 =	350
Column totals	215 (A)		800 (B)

Prevalence Index = B/A = 3.72

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_Z1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-7	2.5Y 4/3	100					Loam	some pebbles/rocky

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 7

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_PP1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.721676 | Long.: -78.671356 | Datum: NAD83

Soil Map Unit Name: CvB; Cookport and Ernest very stoney soils, 0-8% slopes | NWI Classification: not mapped

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

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area, near ATV road. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)
- X Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_PP1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Robinia pseudoacacia*	10	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	10 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Epilobium ciliatum*	10	N	FAC
2 *Solidago gigantea*	5	N	FACW
3 *Symphyotrichum lanceolatum*	10	N	FACW
4 *Spartina pectinata*	20	Y	OBL
5 *Carex sterilis*	15	N	OBL
6 *Panicum virgatum*	40	Y	FAC
7 *Dactylis glomerata*	15	N	FACU
8 *Echinochloa crus-galli*	10	N	FAC
9			
10			
11			
12			
13			
14			
15			
	125 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	15	x 2 =	30
FAC species	60	x 3 =	180
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column totals	135 (A)		345 (B)

Prevalence Index = B/A = 2.56

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_PP1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-3	2.5Y 4/2	90	2.5Y 5/6	10	C	M	Clay loam	
3-7	2.5Y 4/2	75	10YR 5/6	10	C	M	Clay loam	some mixing with shale
			7.5YR 5/6	15	C	M		
7-12	N 3/	85	10YR 5/8	15	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)**
- X Loamy Gleyed Matrix (F2)
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 12

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_PP1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 10% | Lat.: 40.721597 | Long.: -78.671459 | Datum: NAD83

Soil Map Unit Name: CvB; Cookport and Ernest very stoney soils, 0-8% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_PP1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Robinia pseudoacacia*	60	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	60 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Robinia pseudoacacia*	40	Y	FACU
2 *Lonicera japonica*	5	N	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	45 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Tussilago farfara*	30	Y	FACU
2 *Solidago canadensis*	20	Y	FACU
3 *Dactylis glomerata*	40	Y	FACU
4 *Brassica napus*	10	N	UPL
5 *Symphytum tuberosum*	20	Y	UPL
6 *Anthriscus cerefolium*	10	N	UPL
7			
8			
9			
10			
11			
12			
13			
14			
15			
	130 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	195	x 4 =	780
UPL species	40	x 5 =	200
Column totals	235 (A)		980 (B)

Prevalence Index = B/A = 4.17

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_PP1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	10YR 3/2	100					Loam	some pebbles/rocky
2-4	2.5Y 4/3	100					Loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_RR1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.72297 | Long.: -78.675281 | Datum: NAD83

Soil Map Unit Name: CvB; Cookport and Ernest very stoney soils, 0-8% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	4

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_RR1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	10	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	10 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Epilobium ciliatum*	20	N	FAC
2 *Solidago gigantea*	20	N	FACW
3 *Doellingeria umbellata*	5	N	FACW
4 *Panicum virgatum*	15	N	FAC
5 *Eutrochium purpureum*	25	Y	FAC
6 *Typha latifolia*	30	Y	OBL
7 *Juncus effusus*	15	N	FACW
8 *Cirsium muticum*	10	N	OBL
9 *Solidago altissima*	5	N	FACU
10			
11			
12			
13			
14			
15			
	145 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	50	x 2 =	100
FAC species	60	x 3 =	180
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column totals	155 (A)		340 (B)

Prevalence Index = B/A = 2.19

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_RR1

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 4/2	90	10YR 4/6	10	C	M	Silty clay loam	
8-13	2.5Y 5/6	100	10YR 5/6	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 13

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_RR1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Concave

Slope (%): 10% | Lat.: 40.722885 | Long.: -78.675207 | Datum: NAD83

Soil Map Unit Name: CvB; Cookport and Ernest very stoney soils, 0-8% slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_RR1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	5	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	5 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Epilobium ciliatum*	10	N	FAC
2 *Solidago altissima*	15	N	FACU
3 *Phleum pratense*	15	N	FACU
4 *Panicum virgatum*	5	N	FAC
5 *Dactylis glomerata*	25	Y	FACU
6 *Solidago canadensis*	30	Y	FACU
7 *Solidago gigantea*	10	N	FACW
8 *Cirsium arvense*	10	N	FACU
9 *Trifolium repens*	5	N	FACU
10 *Taraxacum officinale*	10	N	FACU
11			
12			
13			
14			
15			
	135 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column totals	140 (A)		515 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_RR1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 3/3	100					Loam	some pebbles/rocky
4-10	10YR 3/3	100					Sandy loam	
10-20	10YR 3/3	90	2.5Y 5/4	10	C	M	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:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 20

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_VV1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 1-2% | Lat.: 40.725097 | Long.: -78.671072 | Datum: NAD83

Soil Map Unit Name: CoC—Cookport channery loam, 8 to 15 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	3

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_VV1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	10	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	10 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Epilobium ciliatum*	10	N	FAC
2 *Symphyotrichum lanceolatum*	5	N	FACW
3 *Schoenoplectus tabernaemontani*	10	N	OBL
4 *Scirpus cyperinus*	20	Y	FACW
5 *Panicum virgatum*	50	Y	FAC
6 *Juncus effusus*	10	N	FACW
7 *Eleocharis rostellata*	10	N	OBL
8 *Phalaris arundinacea*	5	N	FACW
9			
10			
11			
12			
13			
14			
15			
	120 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	50	x 2 =	100
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	130 (A)		300 (B)

Prevalence Index = B/A = 2.31

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_VV1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-6	2.5Y 4/2	80	7.5YR 4/6	15	C	M	Silty clay loam	
			10YR 5/8	5	C	M		
6-9	2.5Y 5/3	85	10YR 5/6	15	C	M	Clay loam	rocks, small pebbles, lots of mixing

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

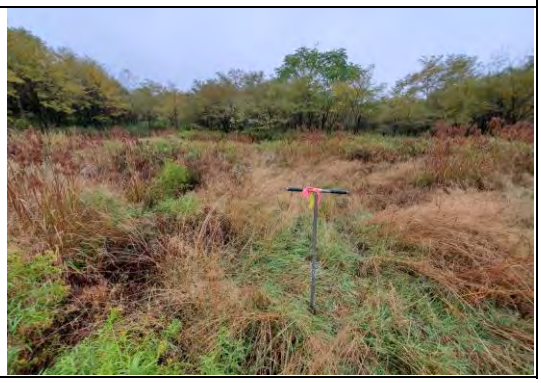
Type: Rock refusal

Depth (inches): 9

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.



WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_VV1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 10% | Lat.: 40.725171 | Long.: -78.671078 | Datum: NAD83

Soil Map Unit Name: CoC—Cookport channery loam, 8 to 15 percent slopes | NWI Classification: not mapped

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

Are Vegetation ___, Soil X, or Hydrology ___ significantly disturbed? Yes

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic?

Are "Normal Circumstances" present? Yes X No ___

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ___	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_VV1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Robinia pseudoacacia*	60	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	60 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Robinia pseudoacacia*	40	Y	FACU
2 *Lonicera japonica*	5	N	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	45 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Tussilago farfara*	30	Y	FACU
2 *Solidago canadensis*	20	Y	FACU
3 *Dactylis glomerata*	40	Y	FACU
4 *Brassica napus*	10	N	UPL
5 *Symphytum tuberosum*	20	Y	UPL
6 *Anthriscus cerefolium*	10	N	UPL
7			
8			
9			
10			
11			
12			
13			
14			
15			
	130 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	195	x 4 =	780
UPL species	40	x 5 =	200
Column totals	235 (A)		980 (B)

Prevalence Index = B/A = 4.17

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_VV1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	10YR 3/2	100					Loam	some pebbles/rocky
2-4	2.5Y 4/3	100					Loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_III1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 1-2% | Lat.: 40.730362 | Long.: -78.666192 | Datum: NAD83

Soil Map Unit Name: 92B—Bethesda very channery silt loam, 0 to 8 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within a Palustrine Emergent Wetland (PEM) area, on the border of a Palustrine Unconsolidated Bottom (PUB) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	X	No	____	Depth (inches):	10
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_III1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Liriodendron tulipifera*	5	Y	FACU
2 *Alnus glutinosa*	40	Y	FACW
3 *Acer rubrum*	10	Y	FAC
4 *Robinia pseudoacacia*	5	N	FACU
5 *Carya laciniosa*	5	Y	FAC
6			
7			
8			
9			
10			
	65 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	40	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	40 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Scirpus cyperinus*	30	Y	FACW
2 *Microstegium vimineum*	25	Y	FAC
3 *Dichanthelium clandestinum*	10	N	FAC
4 *Persicaria pensylvanica*	15	N	FACW
5 *Lycopus virginicus*	5	N	OBL
6 *Bidens laevis*	5	N	OBL
7 *Typha latifolia*	10	N	OBL
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	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: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 86% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	125	x 2 =	250
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column totals	205 (A)		460 (B)

Prevalence Index = B/A = 2.24

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_III1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-5	2.5Y 5/3	80	7.5YR 4/6	20	C	PL	Silty clay loam	
5-7	N 2.5/	100					Silty clay loam	
7-20	2.5Y 5/2	80	2.5Y 6/6	10	C	M	Silty clay loam	
			10YR 5/8	10	C	M		

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/13/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_III1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Linear

Slope (%): 1-2% | Lat.: 40.730307 | Long.: -78.665974 | Datum: NAD83

Soil Map Unit Name: 92B—Bethesda very channery silt loam, 0 to 8 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area at edge of rock dump. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_III1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Quercus robur*	20	Y	NI (UPL)
2 *Carya laciniosa*	40	Y	FAC
3 *Quercus alba*	30	Y	FACU
4			
5			
6			
7			
8			
9			
10			
	90 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	10	Y	FAC
2 *Alnus glutinosa*	10	N	FACW
3 *Carya laciniosa*	50	Y	FAC
4 *Kalmia latifolia*	25	Y	FACU
5 *Robinia pseudoacacia*	10	N	FACU
6			
7			
8			
9			
10			
	105 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Schizachne purpurascens*	30	Y	FACU
2 *Pteridium aquilinum*	20	Y	FACU
3 *Solidago caesia*	15	Y	FACU
4 *Quercus robur*	5	N	NI (UPL)
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	70 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 9 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	100	x 3 =	300
FACU species	130	x 4 =	520
UPL species	0	x 5 =	0
Column totals	240 (A)		840 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_III1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 4/4	100					Silt loam	some pebbles/rocky

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit. Some pebbles mixed in.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_AAAA1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 10% | Lat.: 40.730421 | Long.: -78.668488 | Datum: NAD83

Soil Map Unit Name: HbF - Hazleton very stony loam, 25 to 80 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_AAAA1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	15	Y	FAC
2 *Populus tremuloides*	15	Y	FAC
3 *Populus grandidentata*	10	Y	FACU
4			
5			
6			
7			
8			
9			
10			
	40 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Sassafras albidum*	10	Y	FACU
2 *Acer saccharinum*	10	Y	FACW
3 *Alnus glutinosa*	5	N	FACW
4 *Rhododendron maximum*	5	N	FAC
5			
6			
7			
8			
9			
10			
	30 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	60	Y	OBL
2 *Onoclea sensibilis*	25	Y	FACW
3 *Carex lupulina*	20	Y	OBL
4 *Juncus effusus*	15	N	FACW
5 *Solidago altissima*	10	N	FACU
6 *Sanguinaria canadensis*	10	N	UPL
7 *Fragaria vesca*	10	N	FACU
8 *Eupatorium perfoliatum*	5	N	FACW
9 *Scirpus cyperinus*	5	N	FACW
10 *Equisetum fluviatile*	5	N	OBL
11 *Osmundastrum cinnamomeum*	5	N	FACW
12			
13			
14			
15			
	170 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	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	85	x 1 =	85
FACW species	70	x 2 =	140
FAC species	35	x 3 =	105
FACU species	40	x 4 =	160
UPL species	10	x 5 =	50
Column totals	240 (A)		540 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_AAAA1

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	5YR 3/1	100					Muck	
2-4	2.5Y 3/1	85	2.5Y 6/6	10	C	M	Clay loam	
			2.5Y 7/3	5	C	M		
4-8	N 6/1	70	2.5Y 6/8	20	C	M	Sandy loam	
			2.5Y 7/4	10	C	M		

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)**
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 8

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_AAAA1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): Convex, Concave

Slope (%): 20% | Lat.: 40.730458 | Long.: -78.668429 | Datum: NAD83

Soil Map Unit Name: HbF - Hazleton very stony loam, 25 to 80 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_AAAA1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Quercus montana*	35	Y	UPL
2 *Acer rubrum*	5	N	FAC
3			
4			
5			
6			
7			
8			
9			
10			
	40 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rhododendron maximum*	40	Y	FAC
2 *Liriodendron tulipifera*	30	Y	FACU
3 *Quercus montana*	15	N	UPL
4 *Carya ovata*	10	N	FACU
5 *Acer rubrum*	5	N	FAC
6			
7			
8			
9			
10			
	100 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Sanguinaria canadensis*	30	Y	UPL
2 *Pteridium aquilinum*	25	Y	FACU
3 *Piptatheropsis pungens*	20	Y	NI (UPL)
4 *Scirpus atrovirens*	5	N	OBL
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	80 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 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	5	x 1 =	5
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	65	x 4 =	260
UPL species	80	x 5 =	400
Column totals	200 (A)		815 (B)

Prevalence Index = B/A = 4.08

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_AAAA1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	2.5Y 3/3	100					Loam	
2-4	2.5Y 3/3	90	2.5Y 6/6	10	C	M	Loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_GGG1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 5% | Lat.: 40.70597342 | Long.: -78.6613585 | Datum: NAD83

Soil Map Unit Name: 95D - Cedarcreek extremely channery loam, moderately steep | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	X	No	____	Depth (inches):	4
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_GGG1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	5		FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	5 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Eleocharis rostellata*	40	Y	OBL
2 *Typha latifolia*	30	Y	OBL
3 *Scirpus cyperinus*	30	Y	FACW
4 *Phalaris arundinacea*	15	N	FACW
5 *Juncus effusus*	10	N	FACW
6 *Poa palustris*	10	N	FACW
7 *Epilobium coloratum*	10	N	FACW
8			
9			
10			
11			
12			
13			
14			
15			
	145 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	150 (A)		230 (B)

Prevalence Index = B/A = 1.53

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_GGG1

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
0-5	2.5Y 5/2	85	7.5YR 5/8	15	C	M	Muck	
5-10	2.5Y 6/4	80	2.5Y 6/8	10	C	M	Sandy clay loam	Small pebbles and rocks mixing

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 10

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit. Soil significantly disturbed.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_GGG1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 10% | Lat.: 40.727224 | Long.: -78.661365 | Datum: NAD83

Soil Map Unit Name: 95D - Cedarcreek extremely channery loam, moderately steep | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby. Upland data point located roughly two feet in elevation higher than associated wetland data point.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_GGG1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	10	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	10 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Dactylis glomerata*	50	Y	FACU
2 *Solidago canadensis*	40	Y	FACU
3 *Dipsacus fullonum*	25	N	FACU
4 *Phleum pratense*	15	N	FACU
5 *Taraxacum officinale*	10	N	FACU
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	140 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	140	x 4 =	560
UPL species	0	x 5 =	0
Column totals	150 (A)		590 (B)

Prevalence Index = B/A = 3.93

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_GGG1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	2.5Y 4/4	100					Silt loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_D1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Floodplain | Local relief (concave, convex, none): Concave, Concave

Slope (%): 10% | Lat.: 40.70662178 | Long.: -78.68678482 | Datum: NAD83

Soil Map Unit Name: NoB—Nolo very stony sandy loam, 0 to 8 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area, near Rock Run River floodplain. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- X 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)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_D1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	10	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	10 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Cladium mariscoides*	40	Y	OBL
2 *Typha latifolia*	30	Y	OBL
3 *Eupatorium maculatum*	25	Y	FACW
4 *Juncus effusus*	15	N	FACW
5 *Sparganium americanum*	15	N	OBL
6 *Scirpus cyperinus*	15	N	FACW
7 *Spiraea alba*	10	N	FACW
8 *Verbena hastata*	5	N	FACW
9			
10			
11			
12			
13			
14			
15			
	155 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	x 1 =	85
FACW species	70	x 2 =	140
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	165 (A)		255 (B)

Prevalence Index = B/A = 1.55

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_D1

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	2.5Y 3/1	100					Muck	Mucky mineral
4-14	2.5Y 4/1	100					Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 14

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_D1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 90% | Lat.: 40.70662178 | Long.: -78.66537528 | Datum: NAD83

Soil Map Unit Name: NoB—Nolo very stony sandy loam, 0 to 8 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No	If yes, optional Wetland Site ID:	
Wetland hydrology present?	No		

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area located roughly 4 feet above adjacent wetland. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_D1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carya laciniosa*	30	Y	FAC
2 *Quercus montana*	20	Y	UPL
3			
4			
5			
6			
7			
8			
9			
10			
	50 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Fagus grandifolia*	40	Y	FACU
2 *Liriodendron tulipifera*	30	Y	FACU
3 *Betula alleghaniensis*	10	N	FAC
4 *Acer rubrum*	10	N	FAC
5 *Acer pensylvanicum*	10	N	FACU
6			
7			
8			
9			
10			
	100 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Leersia oryzoides*	20	Y	OBL
2 *Solidago canadensis*	15	Y	FACU
3 *Polystichum acrostichoides*	10	Y	FACU
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	45 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 29% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	105	x 4 =	420
UPL species	20	x 5 =	100
Column totals	195 (A)		690 (B)

Prevalence Index = B/A = 3.54

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_D1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-3	10YR 3/2	100					Silty clay loam	
3-6	2.5Y 4/3	100					Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 6

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_Q1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.71781067 | Long.: -78.68273417 | Datum: NAD83

Soil Map Unit Name: GWF—Gilpin-Weikert channery silt loams, 25 to 70 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Emergent Wetland (PEM) area, within an old holding pond. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

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

Field Observations:

Surface water present?	Yes ____	No X	Depth (inches):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0	**Wetland hydrology present?** **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_Q1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Cornus alba*	25	Y	FACW
2 *Populus tremuloides*	15	Y	FAC
3			
4			
5			
6			
7			
8			
9			
10			
	40 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	40	Y	OBL
2 *Scirpus cyperinus*	20	Y	FACW
3 *Carex lupulina*	15	N	OBL
4 *Keckiella breviflora*	15	N	NI (UPL)
5 *Juncus effusus*	15	N	FACW
6 *Poa palustris*	10	N	FACW
7 *Epilobium hirsutum*	5	N	FACW
8			
9			
10			
11			
12			
13			
14			
15			
	120 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	75	x 2 =	150
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	145 (A)		250 (B)

Prevalence Index = B/A = 1.72

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_Q1

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
0-14	2.5Y 5/1	65	10YR 5/8	20	C	M	Sandy loam	
			2.5Y 6/6	15	C	M		
14-20	2.5Y 5/4	70	2.5Y 6/8	30	C	M	Clay	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- X 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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 20

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project City/County: Cambria County Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. State: PA Sampling Point: CK_UPL_Q1

Investigator(s): C. Kleist Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): Convex, Convex

Slope (%): 100% Lat.: 40.7177715 Long.: -78.68275183 Datum: NAD83

Soil Map Unit Name: GWF—Gilpin-Weikert channery silt loams, 25 to 70 percent slopes NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area located roughly 4 feet above adjacent wetland. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_Q1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Liriodendron tulipifera*	15	Y	FACU
2			
3			
4			
5			
6			
7			
8			
9			
10			
	15 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carya ovata*	25	Y	FACU
2 *Liriodendron tulipifera*	20	Y	FACU
3 *Acer rubrum*	10	N	
4			
5			
6			
7			
8			
9			
10			
	55 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Leersia oryzoides*	30	Y	OBL
2 *Solidago canadensis*	20	Y	FACU
3 *Rubus idaeus*	20	Y	FAC
4 *Phleum pratense*	10	N	FACU
5 *Achillea millefolium*	10	N	FACU
6 *Taraxacum officinale*	10	N	FACU
7 *Dichanthelium clandestinum*	5	N	FAC
8 *Fragaria vesca*	5	N	FACU
9 *Dactylis glomerata*	5	N	FACU
10 *Rumex crispus*	5	N	FAC
11			
12			
13			
14			
15			
	120 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	120	x 4 =	480
UPL species	0	x 5 =	0
Column totals	180 (A)		600 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_Q1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	2.5Y 5/3	100					Clay loam	some pebbles/rocky
4-11	2.5Y 5/3	85	10YR 5/6	15	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 11

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_HHHHH1

Investigator(s): C. Kleist | Section, Township, Range: Westover Borough

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 15% | Lat.: 40.72778811 | Long.: -78.6925065 | Datum: NAD83

Soil Map Unit Name: BvD—Buchanan silt loam, 8 to 25 percent slopes, extremely stony | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an sloped Palustrine Forested Wetland (PFO) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, numerous shale rock observed and bedrock outcrows nearby.

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

Field Observations:

Surface water present?	Yes ____	No X	Depth (inches):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_HHHHH1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	50	Y	FAC
2 *Alnus glutinosa*	20	Y	FACW
3 *Quercus montana*	20	Y	UPL
4 *Liriodendron tulipifera*	15	N	FACU
5 *Betula alleghaniensis*	15	N	FAC
6 *Acer saccharum*	10	N	FACU
7 *Prunus serotina*	5	N	FACU
8			
9			
10			
	135 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	20	Y	FAC
2 *Carya laciniosa*	20	Y	FAC
3 *Fagus grandifolia*	15	Y	FACU
4 *Rosa multiflora*	10	N	FACU
5			
6			
7			
8			
9			
10			
	65 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carex lupulina*	40	N	OBL
2 *Carex comosa*	20	Y	OBL
3 *Panicum capillare*	15	N	FAC
4 *Parathelypteris noveboracensis*	15	N	FAC
5 *Phalaris arundinacea*	10	N	FACW
6 *Alliaria petiolata*	10	N	FACU
7 *Onoclea sensibilis*	10	N	FACW
8			
9			
10			
11			
12			
13			
14			
15			
	120 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	135	x 3 =	405
FACU species	65	x 4 =	260
UPL species	20	x 5 =	100
Column totals	320 (A)		905 (B)

Prevalence Index = B/A = 2.83

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic. Vegetation roots displayed morphological adaptations for wetland conditions and moss trim lines.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_HHHHH1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	2.5Y 3/1	100					Sandy clay loam	
2-7	2.5Y 4/1	65	10YR 5/8	25	C	M	Clay loam	Mixing of soil layers.
			10YR 6/6	10	C	M		
7-20	Gley N 6/1	70	10YR 5/8	30	C	M	Clay	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)**
- X Loamy Gleyed Matrix (F2)
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project City/County: Cambria County Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. State: PA Sampling Point: CK_UPL_HHHHH1

Investigator(s): C. Kleist Section, Township, Range: Westover Borough

Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): Convex, Convex

Slope (%): 25% Lat.: 40.72786494 Long.: -78.69265794 Datum: NAD83

Soil Map Unit Name: BvD—Buchanan silt loam, 8 to 25 percent slopes, extremely stony NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	Yes		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_HHHHH1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Quercus alba*	40	Y	FACU
2 *Fagus grandifolia*	30	Y	FACU
3 *Acer rubrum*	25	N	FAC
4 *Carya ovata*	25	N	FACU
5 *Prunus serotina*	10	N	FACU
6			
7			
8			
9			
10			
	130 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Carya ovata*	40	Y	FACU
2 *Fagus grandifolia*	20	Y	FACU
3 *Rosa multiflora*	15	N	FACU
4 *Acer rubrum*	10	N	FAC
5 *Prunus serotina*	10	N	FACU
6 *Lonicera japonica*	10	N	FACU
7			
8			
9			
10			
	105 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alliaria petiolata*	60	Y	FACU
2 *Leersia oryzoides*	25	Y	OBL
3 *Parathelypteris noveboracensis*	20	N	FAC
4 *Panicum capillare*	15	N	FAC
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	120 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 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	25	x 1 =	25
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	260	x 4 =	1040
UPL species	0	x 5 =	0
Column totals	355 (A)		1275 (B)

Prevalence Index = B/A = 3.59

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_HHHHH1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	2.5Y 3/1	100					Silt	
8-16	2.5Y 3/1	85	10YR 6/6	15	C	M	Silt	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 16

Hydric soil present? **Yes**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_GGGG1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.72201267 | Long.: -78.67932767 | Datum: NAD83

Soil Map Unit Name: CvB—Cookport and Ernest very stony soils, 0 to 8 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within the border of a Palustrine Forested Wetland (PFO) and Palustrine Unconsolidated Bottom Wetland (PUB) area, within a seasonal flooded basin.
Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	1

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_GGGG1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Quercus alba*	45	Y	FACU
2 *Alnus glutinosa*	20	Y	FACW
3 *Acer rubrum*	10	N	FAC
4			
5			
6			
7			
8			
9			
10			
	75 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	30	Y	FACW
2 *Quercus alba*	15	Y	FACU
3 *Rosa multiflora*	5	N	FACU
4			
5			
6			
7			
8			
9			
10			
	50 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Sparganium americanum*	70	Y	OBL
2 *Rubus idaeus*	10	N	FAC
3 *Impatiens capensis*	10	N	FACW
4 *Leersia oryzoides*	10	N	OBL
5 *Onoclea sensibilis*	10	N	FACW
6 *Alliaria petiolata*	5	N	FACU
7 *Acer rubrum*	5	N	FAC
8 *Solidago flexicaulis*	5	N	FACU
9 *Scirpus cyperinus*	5	N	FACW
10			
11			
12			
13			
14			
15			
	130 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	75	x 2 =	150
FAC species	25	x 3 =	75
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column totals	255 (A)		605 (B)

Prevalence Index = B/A = 2.37

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_GGGG1

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	2.5Y 4/1	100					Sandy loam	
7-24	N 2.5/	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:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- X Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 10

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit. Soil significantly disturbed.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_GGGG1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 70% | Lat.: 40.72207889 | Long.: -78.67928944 | Datum: NAD83

Soil Map Unit Name: CvB—Cookport and Ernest very stony soils, 0 to 8 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No	If yes, optional Wetland Site ID:	
Wetland hydrology present?	No		

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area that is roughly 6 feet above adjacent wetland. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year. Area is previously disturbed from historical strip mine area, with signficant amounts of mine rocks dumped nearby.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_GGGG1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	60	Y	FACW
2 *Quercus alba*	20	Y	
3 *Acer rubrum*	10	N	
4			
5			
6			
7			
8			
9			
10			
	90 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	40	Y	FACW
2 *Rosa multiflora*	15	Y	FACU
3 *Lonicera japonica*	10	N	FACU
4			
5			
6			
7			
8			
9			
10			
	65 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rubus idaeus*	30	Y	FAC
2 *Fragaria vesca*	10	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	40 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	30	x 3 =	90
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column totals	165 (A)		430 (B)

Prevalence Index = B/A = 2.61

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_GGGG1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	2.5Y 3/2	100					Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_WET_EEEEE1

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% | Lat.: 40.70391483 | Long.: -78.65858522 | Datum: NAD83

Soil Map Unit Name: CvD—Cookport and Ernest very stony soils, 8 to 25 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Unconsolidated Bottom Wetland(PUB) area within a seasonal flooded basin. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	6
Water table present?	Yes	____	No	X	Depth (inches):	____
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_EEEEE1

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	25	Y	FAC
2 *Alnus glutinosa*	25	Y	FACW
3 *Betula alleghaniensis*	10	N	FAC
4 *Robinia pseudoacacia*	5	N	FACU
5 *Populus grandidentata*	5	N	FACU
6			
7			
8			
9			
10			
	70 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	30	Y	FAC
2 *Alnus glutinosa*	20	Y	FACW
3 *Fagus grandifolia*	15	N	FACU
4			
5			
6			
7			
8			
9			
10			
	65 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Juncus effusus*	30	N	FACW
2 *Impatiens capensis*	20	Y	FACW
3 *Onoclea sensibilis*	15	Y	FACW
4 *Spiraea alba*	10	N	FACW
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	75 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	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: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	65	x 3 =	195
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column totals	210 (A)		535 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_EEEEE1

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	2.5Y 4/1						Silty clay loam	
3-15	2.5Y 4/1	80	10YR 5/6	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 12

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project City/County: Cambria County Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. State: PA Sampling Point: CK_WET_EEEEE2

Investigator(s): C. Kleist Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave, Concave

Slope (%): 0-1% Lat.: 40.70379539 Long.: -78.65927739 Datum: NAD83

Soil Map Unit Name: LDF—Laidig soils, 25 to 70 percent slopes NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an Palustrine Unconsolidated Bottom Wetland (PEM) area. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- X 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)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	5
Water table present?	Yes	____	No	X	Depth (inches):	____
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary and secondary indicators of wetland hydrology were observed during our site visit. There was beaver activity and the presence of salamanders located within the wetland.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_WET_EEEEE2

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Salix nigra*	30	Y	OBL
2 *Acer rubrum*	5	Y	FAC
3			
4			
5			
6			
7			
8			
9			
10			
	35 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Platanus occidentalis*	5	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	5 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	40	Y	OBL
2 *Eleocharis rostellata*	30	Y	OBL
3 *Lycopus europaeus*	20	N	OBL
4 *Leersia oryzoides*	20	N	OBL
5 *Hypericum androsaemum*	10	N	NI (UPL)
6 *Dichanthelium clandestinum*	10	N	FAC
7 *Phalaris arundinacea*	5	N	FACW
8 *Lemna trisulca*	5	N	OBL
9			
10			
11			
12			
13			
14			
15			
	140 =	Total Cover	

Woody Vine Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	145	x 1 =	145
FACW species	10	x 2 =	20
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	170 (A)		210 (B)

Prevalence Index = B/A = 1.24

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_WET_EEEEE2

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-3	2.5Y 4/1	100					Muck	
3-13	2.5Y 4/1	85	2.5Y 5/6	15	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

Indicators for Problematic Hydric Soils[3]:

- X 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock refusal

Depth (inches): 13

Hydric soil present? **Yes**

Remarks:

Hydric soils present at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC. | State: PA | Sampling Point: CK_UPL_EEEEE2

Investigator(s): C. Kleist | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Sideslope | Local relief (concave, convex, none): Convex, Convex

Slope (%): 60% | Lat.: 40.70384994 | Long.: -78.65941561 | Datum: NAD83

Soil Map Unit Name: LDF—Laidig soils, 25 to 70 percent slopes | NWI Classification: not mapped

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

Are Vegetation ____ , Soil X , or Hydrology ____ significantly disturbed? Yes

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point within an upland area roughly 5 feet above adjacent wetland. Antecedent precipitation score of 9 shows that the climatic/hydrologic conditions at the time of the site visit was considered below normal for this time of year.

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):		
Water table present?	Yes ____	No X	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**Wetland hydrology present?**	**No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed at time of site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: CK_UPL_EEEEE2

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Quercus alba*	20	Y	FACU
2 *Betula alleghaniensis*	15	Y	
3 *Fagus grandifolia*	10	Y	
4			
5			
6			
7			
8			
9			
10			
	45 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Fagus grandifolia*	40	Y	FACU
2 *Alnus glutinosa*	10	Y	FACW
3 *Acer rubrum*	10	Y	FAC
4			
5			
6			
7			
8			
9			
10			
	60 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rubus idaeus*	35	Y	FAC
2 *Leersia oryzoides*	30	Y	OBL
3 *Panicum capillare*	25	Y	FAC
4 *Daucus carota*	20	N	UPL
5 *Taraxacum officinale*	15	N	FACU
6 *Solidago canadensis*	10	N	FACU
7 *Solidago bicolor*	10	N	NI (UPL)
8 *Fragaria vesca*	10	N	FACU
9 *Hieracium albiflorum*	5	N	NI (UPL)
10 *Dichanthelium clandestinum*	5	N	FAC
11			
12			
13			
14			
15			
	165 =	Total Cover	

Woody Vine Stratum (Plot Size (30))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 9 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 56% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	10	x 2 =	20
FAC species	75	x 3 =	225
FACU species	95	x 4 =	380
UPL species	20	x 5 =	100
Column totals	230 (A)		755 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

- [ ] Rapid Test for Hydrophytic Vegetation
- [X] Dominance Test is >50%
- [ ] Prevalence Index is ≤3.0*
- [ ] Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
No hydrophytic vegetation obersved at time of site visit.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: CK_UPL_EEEEE2

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

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

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock Refusal

Depth (inches): 4

Hydric soil present? **No**

Remarks:

No hydric soil observed at time of site visit.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/29/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W7

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Concave

Slope (%): 3-5% | Lat.: 40.6853 | Long.: -78.6483 | Datum: NAD83

Soil Map Unit Name: UdF | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent/Scrub-Shrub Wetland (PEM); Isolated

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	x	No	____	Depth (inches):	6
Saturation present? (includes capillary fringe)	Yes	x	No	____	Depth (inches):	2

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W7

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	15	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	15 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	70	Y	OBL
2 *Epilobium hirsutum*	10	N	FACW
3 *Vernonia noveboracensis*	10	N	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	90 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	105 (A)		140 (B)

Prevalence Index = B/A = 1.33

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W7

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					Silt loam	
2-12	10YR 4/1	90	7.5YR 4/6	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project City/County: Cambria County Sampling Date: 10/29/2020

Applicant/Owner: CPV Rogues's Wind, LLC State: PA Sampling Point: UPL 7

Investigator(s): D. Bonomo Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Convex

Slope (%): 1% Lat.: 40.6652 Long.: -78.6479 Datum: NAD83

Soil Map Unit Name: UdF NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes x No (If no, explain in remarks)

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

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

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland habitat adjacent to Wetland 29; Terrestrial forest

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

Field Observations:

Surface water present?	Yes ____	No	x	Depth (inches):	
Water table present?	Yes ____	No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	x	Depth (inches):	

Wetland hydrology present? **No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: UPL 7

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Tsuga canadensis*	50	Y	FACU
2 *Quercus alba*	10	N	FACU
3 *Betula alleghaniensis*	5	N	FAC
4			
5			
6			
7			
8			
9			
10			
	65 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Fagus grandifolia*	20	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	20 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Solidago canadensis*	25	N	FACU
2 *Eurybia divaricata*	10	Y	UPL
3 *Grass (unk.)*	30		N/A
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	65 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	5	x 3 =	15
FACU species	85	x 4 =	340
UPL species	10	x 5 =	50
Column totals	120 (A)		445 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: UPL 7

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-14	10YR 4/4	100					Silt loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? **No**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/29/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W14

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Concave

Slope (%): 1-2% | Lat.: 40.685 | Long.: -78.6465 | Datum: NAD83

Soil Map Unit Name: UDF | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM) along hillslope

HYDROLOGY

Wetland Hydrology Indicators:

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

- x Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	x	No		Depth (inches):	1
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	x	No		Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W14

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	15	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	15 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Phalaris arundinacea*	60	Y	FACW
2 *Scirpus cyperinus*	10	N	FACW
3 *Euthamia graminifolia*	10	N	FAC
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	80 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	95	(A)	200 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W14

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	10YR 4/1	90	10YR 5/8	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/29/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W18

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Swalle | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6844 | Long.: -78.6484 | Datum: NAD83

Soil Map Unit Name: UDF | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM) formed within swale; constructed feature

HYDROLOGY

Wetland Hydrology Indicators:

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

- x Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	x	No		Depth (inches):	1
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	x	No		Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W18

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Scirpus cyperinus*	60	Y	FACW
2 *Eupatorium perfoliatum*	15	N	FACW
3 *Juncus effusus*	15	N	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	90 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	90	(A)	180 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W18

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	7.5YR 5/1	90	7.5YR 5/8	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W19

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.693 | Long.: -78.6461 | Datum: NAD83

Soil Map Unit Name: | NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year? Yes x No (If no, explain in remarks)

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM) formed along fomer trail.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	x	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	x	Depth (inches): ____

Wetland hydrology present? Yes

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W19

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Scirpus cyperinus*	60	Y	FACW
2 *Dichanthelium clandestinum*	15	N	FAC
3 *Juncus effusus*	15	N	FACW
4 *Vernonia noveboracensis*	10	N	FACW
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	100 (A)		215 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

TRC

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W19

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	7.5YR 5/1	45					Silty clay loam	
	7.5YR 6/2	45	7.5YR 4/6	10	C	M		

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 6"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W20

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6936 | Long.: -78.6461 | Datum: NAD83

Soil Map Unit Name: NoB | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM)

HYDROLOGY

Wetland Hydrology Indicators:

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

- x Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	x	No		Depth (inches):	2
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	x	No		Depth (inches):	2

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W20

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Spiraea tomentosa*	20	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	20 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	80	Y	OBL
2 *Scirpus cyperinus*	10	N	FACW
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	90 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	10	x 2 =	20
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	110 (A)		160 (B)

Prevalence Index = B/A = 1.45

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W20

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 6/1	90	7.5YR 4/6	10	C	M	Clay loam	
4-14	Gley 1 4/N	100					Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 14"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W23

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6943 | Long.: -78.6479 | Datum: NAD83

Soil Map Unit Name: NoB | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Forested Wetland (PFO) partially along fomer trail, shows signs of spring seep hydrology; and drains to adjacent stream.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ____	No	x	Depth (inches):	
Water table present?	Yes ____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	x	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W23

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer rubrum*	30	Y	FAC
2 *Tsuga canadensis*	30	Y	FACU
3 *Betula alleghaniensis*	20	Y	FAC
4			
5			
6			
7			
8			
9			
10			
	80 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Lindera benzoin*	20	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	20 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Leersia oryzoides*	50	Y	OBL
2 *Scirpus cyperinus*	20	Y	FACW
3 *Juncus effusus*	20	Y	FACW
4 *Lycopus americanus*	5	N	OBL
5 *Persicaria sagittata*	5	N	OBL
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	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: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 86% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	70	x 3 =	210
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column totals	200 (A)		470 (B)

Prevalence Index = B/A = 2.35

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W23

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 4/3	100					Silty clay loam	
2-8	10YR 4/2	90	7.5YR 4/6	10	C	M	Clay loam	
8-12	Gley 1 3/10Y	100					Clay loam	
12+	Gley 1 5N	80	7.5YR 4/6	20	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W26

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 1-2% | Lat.: 40.6872 | Long.: -78.6463 | Datum: NAD83

Soil Map Unit Name: UdC | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM);Isolated; Disturbed area due to past mining practices.

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

Field Observations:

Surface water present?	Yes ____	No	x	Depth (inches):	
Water table present?	Yes ____	No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	x	Depth (inches):	

Wetland hydrology present? Yes

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W26

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Scirpus cyperinus*	60	Y	FACW
2 *Euthamia graminifolia*	20	Y	FAC
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	80 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	80	(A)	180 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W26

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 4/2	90	7.5YR 4/6	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 4"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric. Shallow soil layer due to past mining practices and removal of overburden material.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W27

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 1-2% | Lat.: 40.6864 | Long.: -78.6458 | Datum: NAD83

Soil Map Unit Name: UdC | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Scrub-Shrub Wetland (PEM); Isolated; Disturbed area due to past mining practices.

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

Field Observations:

Surface water present?	Yes	x	No		Depth (inches):	2
Water table present?	Yes		No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	x	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W27

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	70	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	70 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Microstegium vimineum*	80	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	80 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across all Strata:	2	(B)
Percent of Dominant Species that are OBL, FACW, or FAC:	100%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	150	(A)	380 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

- x Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- X Prevalence Index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W27

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 4/2	90	10YR 4/6	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 4"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric. Shallow soil layer due to past mining practices and removal of overburden material.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W28

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6912 | Long.: -78.6472 | Datum: NAD83

Soil Map Unit Name: UdC | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Scrub-Shrub Wetland (PEM); Isolated; Disturbed area due to past mining practices.

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

Field Observations:

Surface water present?	Yes	x	No		Depth (inches):	2
Water table present?	Yes		No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	x	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W28

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1	70	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	70 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Scirpus cyperinus*	50	Y	FACW
2 *Phalaris arundinacea*	20	Y	FACW
3 *Grass (unk)*	30		N/A
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	140	x 2 =	280
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	140 (A)		280 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic. No indicator status has been assigned to unknown grass.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W28

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 4/2	90	10YR 4/6	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 4"

Depth (inches): Rock

Hydric soil present? Yes

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric. Shallow soil layer due to past mining practices and removal of overburden material.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: UPL28

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): Convex

Slope (%): 1% | Lat.: 40.6913 | Long.: -78.6472 | Datum: NAD83

Soil Map Unit Name: UdC | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland habitat adjacent to Wetland 28; Terrestrial forest

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

Field Observations:

Surface water present?	Yes ____	No	x	Depth (inches):	
Water table present?	Yes ____	No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	x	Depth (inches):	

Wetland hydrology present? **No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indicators of wetland hydrology were observed during our site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: UPL28

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Laricina sp*	50	Y	FACU
2 *Prunus serotina*	10		FACU
3 *Acer saccharum*	5		FACU
4 *Acer rubrum*	10		FAC
5 *Betula alleghaniensis*	10		FAC
6			
7			
8			
9			
10			
	85 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	10	Y	FACW
2 *Acer saccharum*	10	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	20 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rubus allegheniensis*	15	N	FACU
2 *Rubus hispidus*	20	Y	FACW
3 *Viola sp.*	2		N/A
4 *Grass (unk.)*	50	Y	N/A
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	87 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	20	x 3 =	60
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column totals	140 (A)		480 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: UPL28

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	10YR 4/4	100					Silt loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 10"

Depth (inches): Rock

Hydric soil present? **No**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric. Shallow soil layer due to past mining practices and removal of overburden material.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W29

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6965 | Long.: -78.6406 | Datum: NAD83

Soil Map Unit Name: CaB | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM); Isolated

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

Field Observations:

Surface water present?	Yes ____	No	X	Depth (inches):	
Water table present?	Yes ____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W29

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	50	Y	OBL
2 *Scirpus atrovirens*	10	N	OBL
3 *Juncus effusus*	10	N	FACW
4 *Epilobium hirsutum*	2	N	FACW
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	72 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	12	x 2 =	24
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	72	(A)	84 (B)

Prevalence Index = B/A = 1.17

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W29

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	10YR 4/1	90	7.5YR 4/6	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project City/County: Cambria County Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogues's Wind, LLC State: PA Sampling Point: UPL29

Investigator(s): D. Bonomo Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Convex

Slope (%): 1% Lat.: 40.6964 Long.: -78.6405 Datum: NAD83

Soil Map Unit Name: UdC NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland habitat adjacent to Wetland 29; Open field

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ 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)
- ___ Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ____	No	x	Depth (inches):	
Water table present?	Yes ____	No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	x	Depth (inches):	

Wetland hydrology present? **No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indicators of wetland hydrology were observed during our site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: UPL29

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Larix*	50	Y	FACU
2 *Prunus serotina*	10		FACU
3 *Acer saccharum*	5		FACU
4 *Acer rubrum*	10		FAC
5 *Betula alleghaniensis*	10		FAC
6			
7			
8			
9			
10			
	85 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Alnus glutinosa*	10	Y	FACW
2 *Acer saccharum*	10	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	20 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Rubus allegheniensis*	15	N	FACU
2 *Rubus hispidus*	20	Y	FACW
3 *Viola sp.*	2		N/A
4 *Grass (unk.)*	50	Y	N/A
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	87 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	20	x 3 =	60
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column totals	140 (A)		480 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: UPL29

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	10YR 4/4	100					Silt loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 10"

Depth (inches): Rock

Hydric soil present? **No**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric. Shallow soil layer due to past mining practices and removal of overburden material.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W30

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6972 | Long.: -78.6405 | Datum: NAD83

Soil Map Unit Name: CaB | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM); Isolated

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

Field Observations:

Surface water present?	Yes ____	No	X	Depth (inches):	
Water table present?	Yes ____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W30

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Phalaris arundinacea*	40	Y	FACW
2 *Scirpus cyperinus*	60	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	100	(A)	200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W30

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	10YR 4/1	90	7.5YR 4/6	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W38

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.6983 | Long.: -78.6486 | Datum: NAD83

Soil Map Unit Name: NoB | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Forested Wetland (PFO); Isolated

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	x	No	X	Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

This wetland was delineated in previopus wetland delineation.

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

TRC

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W38

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Tsuga canadensis*	40	Y	FACU
2 *Acer rubrum*	20	Y	FAC
3			
4			
5			
6			
7			
8			
9			
10			
	60 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Glyceria striata*	60	Y	OBL
2 *Onoclea sensibilis*	5	N	FACW
3 *Impatiens capensis*	5	N	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	70 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	10	x 2 =	20
FAC species	20	x 3 =	60
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column totals	130	(A)	300 (B)

Prevalence Index = B/A = 2.31

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W38

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-16	10YR 5/2	90	7.5YR 5/8	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W42

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): depression | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat.: 40.703 | Long.: -78.6525 | Datum: NAD83

Soil Map Unit Name: HbD | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM); wetland was part of previous wetland delineation;

HYDROLOGY

Wetland Hydrology Indicators:

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

- x Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	x	No	____	Depth (inches):	2
Water table present?	Yes	x	No	____	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes	x	No	____	Depth (inches):	2

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W42

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Typha latifolia*	70	Y	OBL
2 *Scirpus cyperinus*	20	Y	FACW
3 *Onoclea sensibilis*	5	N	FACW
4 *Euthamia graminifolia*	5	N	FAC
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	25	x 2 =	50
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	100	(A)	135 (B)

Prevalence Index = B/A = 1.35

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W42

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/1	90	7.5YR 4/6	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 14"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: UPL42

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): Convex

Slope (%): 1% | Lat.: 40.703 | Long.: -78.6523 | Datum: NAD83

Soil Map Unit Name: HbD | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric soil present?	No		
Wetland hydrology present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland habitat adjacent to Wetland 42; Terrestrial Open field

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ 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)
- ___ Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ____	No	x	Depth (inches):	
Water table present?	Yes ____	No	x	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	x	Depth (inches):	

Wetland hydrology present? **No**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: UPL42

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Solidago canadensis*	60	Y	FACU
2 *Phalaris arundinacea*	30	Y	FACW
3 *Phleum pratense*	10	N	UPL
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	10	x 5 =	50
Column totals	100 (A)		350 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **No**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: UPL42

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					Silt loam	
4-16	10YR 4/4	100					Silt loam	gravelly
							`	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? **No**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric. Shallow soil layer due to past mining practices and removal of overburden material.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project City/County: Cambria County Sampling Date: 10/23/2020
Applicant/Owner: CPV Rogues's Wind, LLC State: PA Sampling Point: W46
Investigator(s): D. Bonomo Section, Township, Range: Chest Township
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave
Slope (%): 1% Lat.: 40.6939 Long.: -78.6462 Datum: NAD83
Soil Map Unit Name: NoB NWI Classification: Upland
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes x No (If no, explain in remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in remarks)

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

Hydrophytic vegetation present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Forested Wetland (PFO) at base slope, signs of spring seep hydrology; and drains to adjacent stream.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ 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)
- x Drainages (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes		No	x	Depth (inches):	
Water table present?	Yes	x	No		Depth (inches):	6
Saturation present? (includes capillary fringe)	Yes	x	No		Depth (inches):	0

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple primary and secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W46

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Fagus grandifolia*	30	Y	FACU
2 *Tsuga canadensis*	25	Y	FACU
3 *Betula alleghaniensis*	30	Y	FAC
4			
5			
6			
7			
8			
9			
10			
	85 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Lindera benzoin*	20	Y	FAC
2			
3			
4			
5			
6			
7			
8			
9			
10			
	20 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Glyceria striata*	15	Y	OBL
2 *Impatiens capensis*	5	Y	FACW
3 *Onoclea sensibilis*	5	Y	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	25 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	10	x 2 =	20
FAC species	50	x 3 =	150
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column totals	130 (A)		405 (B)

Prevalence Index = B/A = 3.12

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL

Sampling Point: W46

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/1	90	10YR 5/8	10	C	M	Silty clay loam	
4-16	10YR 6/1	90	10YR 5/8	10	C	M	Clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM - Eastern Mountain and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogues's Wind, LLC | State: PA | Sampling Point: W47

Investigator(s): D. Bonomo | Section, Township, Range: Chest Township

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Concave

Slope (%): 1-2% | Lat.: 40.695 | Long.: -78.646 | Datum: NAD83

Soil Map Unit Name: NoB | NWI Classification: Upland

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

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed?

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic?

Are "Normal Circumstances" present? Yes X No ____

(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	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric soil present?	Yes		
Wetland hydrology present?	Yes	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Palustrine Emergent Wetland (PEM); Isolated

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

Field Observations:

Surface water present?	Yes ____	No	X	Depth (inches):	
Water table present?	Yes ____	No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	

Wetland hydrology present? **Yes**

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Multiple secondary indicators of wetland hydrology were observed during our site visit.

Project/Site: Rogue's Wind Energy Project

VEGETATION - Use scientific names of plants

Sampling Point: W47

Tree Stratum (Plot Size (30 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Sapling/Shrub Stratum (Plot Size (15 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 =	Total Cover	

Herb Stratum (Plot Size (5 ft. radius))	Absolute % Cover	Dominant Species	Indicator Staus
1 *Juncus effusus*	70	Y	FACW
2 *Epilobium hirsutum*	10	N	FACW
3 *Vernonia noveboracensis*	5	N	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	85 =	Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Staus
1 *None*			
2			
3			
4			
5			
	0 =	Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	85	(A)	170 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

x Rapid Test for Hydrophytic Vegetation
X Dominance Test is >50%
X Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation* (Explain)

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

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet)
The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

Indicator statuses were determined using Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Project/Site: Rogue's Wind Energy Project

SOIL Sampling Point: W47

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	90	10YR 5/8	10	C	M	Silty clay loam	

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (**LRR N)**
- ___ Depleted Below Dark Suface (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)
- X 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**)

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 (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: 12"

Depth (inches): Rock

Hydric soil present? **Yes**

Remarks:

The low-chroma matrix with high-chroma mottles at a depth of 10" below the surface indicates that the soil is hydric.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rogues **City/County:** Clearfield, Clearfield **Sampling Date:** 2021-Mar-25
Applicant/Owner: CPV **State:** PA **Sampling Point:** W-DJB-52_PEM-1
Investigator(s): David Bonomo, JK **Section, Township, Range:** Chest Township, Clearfield County
Landform (hillslope, terrace, etc.): Swale **Local relief (concave, convex, none):** Concave **Slope (%):** 5 to 10
Subregion (LRR or MLRA): LRR N **Lat:** 40.7283011392 **Long:** -78.6688634825 **Datum:** WGS84
Soil Map Unit Name: RbF-Rayne channery silt loam, 25 to 65 percent slopes **NWI classification:** None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes _✓_ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes _✓_ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _✓_ No ____		
Hydric Soil Present?	Yes _✓_ No ____	**Is the Sampled Area within a Wetland?**	**Yes _✓_ No ____**
Wetland Hydrology Present?	Yes _✓_ No ____	**If yes, optional Wetland Site ID:**	W-DJB-52

Remarks: (Explain alternative procedures here or in a separate report)
Covertype is PEM. Area is wetland, all three wetland parameters are present.

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)
___ Water-Stained Leaves (B9)
___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Aquatic Fauna (B13)

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)
_✓ FAC-Neutral Test (D5)
___ Microtopographic Relief (D4)

Field Observations:

Surface Water Present?	Yes _✓_ No ____	Depth (inches):	1
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:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least one primary indicator).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-DJB-52_PEM-1

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Betula lenta*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: ____)			
1. *Typha latifolia*	60	Yes	OBL
2. *Onoclea sensibilis*	20	Yes	FACW
3. *Scirpus cyperinus*	5	No	FACW
4. *Juncus effusus*		No	FACW
5.	10		
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	66.7	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply By:	
OBL species	60	x 1 =	60
FACW species		x 2 =	
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals		(A)	(B)
Prevalence Index = B/A =			

Hydrophytic Vegetation Indicators:

____ 1- Rapid Test for Hydrophytic Vegetation

_✓_ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤ 3.0[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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes _✓_ No ____

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).

SOIL

Sampling Point: W-DJB-52_PEM-1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 5/2	90	10YR 8/8	10	C	M	Clay 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)**
___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
___ Sandy Gleyed Matrix (S4)
___ Umbric Surface (F13) **(MLRA 136, 122)**
___ Sandy Redox (S5)
___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
___ Stripped Matrix (S6)
___ Red Parent Material (F21) **(MLRA 127, 147)**

___ 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)

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: None
Depth (inches):

Hydric Soil Present? Yes _✓_ No ____

Remarks:

A positive indication of hydric soil was observed.

Hydrology Photos

Soil Photos

Photo of Sample Plot North

Photo of Sample Plot East

Photo of Sample Plot South

Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rogues **City/County:** Clearfield, Clearfield **Sampling Date:** 2021-Mar-25
Applicant/Owner: CPV **State:** PA **Sampling Point:** W-DJB-57_PFO-1
Investigator(s): David Bonomo, JK **Section, Township, Range:** Chest Township, Clearfield County
Landform (hillslope, terrace, etc.): Hillslope **Local relief (concave, convex, none):** Concave **Slope (%):** 2 to 5
Subregion (LRR or MLRA): LRR N **Lat:** 40.7287161642 **Long:** -78.6666903989 **Datum:** WGS84
Soil Map Unit Name: BvD- Buchanan silt loam, 8 to 25 percent slopes, extremely stony **NWI classification:** None
Are climatic/hydrologic conditions on the site typical for this time of year? Yes _✓_ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes _✓_ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _✓_ No ____		
Hydric Soil Present?	Yes _✓_ No ____	**Is the Sampled Area within a Wetland?**	**Yes _✓_ No ____**
Wetland Hydrology Present?	Yes _✓_ No ____	**If yes, optional Wetland Site ID:**	W-DJB-57

Remarks: (Explain alternative procedures here or in a separate report)
Covertype is PFO. Area is wetland, all three wetland parameters are present.

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)
___ Water-Stained Leaves (B9)
___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Aquatic Fauna (B13)

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)
_✓ FAC-Neutral Test (D5)
___ Microtopographic Relief (D4)

Field Observations:

Surface Water Present?	Yes _✓_ No ____	Depth (inches):	1
Water Table Present?	Yes _✓_ No ____	Depth (inches):	4
Saturation Present? (includes capillary fringe)	Yes _✓_ No ____	Depth (inches):	4

Wetland Hydrology Present? Yes _✓_ No ____

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

Remarks:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least one primary indicator). A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-DJB-57_PFO-1

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	80	Yes	FAC
2. *Betula lenta*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lindera benzoin*	20	Yes	FAC
2. *Lonicera morrowii*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size: ____)			
1. *Juncus effusus*	15	Yes	FACW
2. *Scirpus cyperinus*	10	Yes	FACW
3. *Onoclea sensibilis*	10	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	83.3	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply By:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	100	x 3 =	300
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals	155	(A)	450 (B)
Prevalence Index = B/A =	2.9		

Hydrophytic Vegetation Indicators:

____ 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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes _✓_ No ____

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).

SOIL

Sampling Point: W-DJB-57_PFO-1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 2/1	100					Silt Loam	
8 - 16	10YR 5/2	90	10YR 4/6	10	C	M	Silty Clay 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)**
___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
___ Sandy Gleyed Matrix (S4)
___ Umbric Surface (F13) **(MLRA 136, 122)**
___ Sandy Redox (S5)
___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
___ Stripped Matrix (S6)
___ Red Parent Material (F21) **(MLRA 127, 147)**
___ 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)

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: None
Depth (inches):

Hydric Soil Present? Yes _✓_ No ____

Remarks:

A positive indication of hydric soil was observed.

Vegetation Photos

Soil Photos

Photo of Sample Plot North

Photo of Sample Plot East

Photo of Sample Plot South

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rogues **City/County:** Clearfield, Clearfield **Sampling Date:** 2021-Mar-26
Applicant/Owner: CPV **State:** PA **Sampling Point:** W-DJB-76_PSS-1
Investigator(s): David Bonomo, JK **Section, Township, Range:** Westover Borough, Clearfield County
Landform (hillslope, terrace, etc.): Foot slope **Local relief (concave, convex, none):** Concave **Slope (%):** 1 to 3
Subregion (LRR or MLRA): LRR N **Lat:** 40.726079923 **Long:** -78.689541683 **Datum:** WGS84
Soil Map Unit Name: TyB- Tyler silt loam, 3 to 6 percent slopes **NWI classification:** PFO
Are climatic/hydrologic conditions on the site typical for this time of year? Yes _✓_ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes _✓_ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _✓_ No ____		
Hydric Soil Present?	Yes _✓_ No ____	**Is the Sampled Area within a Wetland?**	**Yes _✓_ No ____**
Wetland Hydrology Present?	Yes _✓_ No ____	**If yes, optional Wetland Site ID:**	W-DJB-76

Remarks: (Explain alternative procedures here or in a separate report)
Covertype is PSS. Area is wetland, all three wetland parameters are present.

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)
- ___ Water-Stained Leaves (B9)
- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Aquatic Fauna (B13)

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)
- _✓ FAC-Neutral Test (D5)
- _✓ Microtopographic Relief (D4)

Field Observations:

Surface Water Present?	Yes _✓_ No ____	Depth (inches):	2
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:

The criterion for wetland hydrology is met. A positive indication of wetland hydrology was observed (at least one primary indicator).

VEGETATION -- Use scientific names of plants.

Sampling Point: W-DJB-76_PSS-1

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	20	Yes	FAC
2. *Fraxinus pennsylvanica*	20	Yes	FACW
3. *Carpinus caroliniana*	10	Yes	FAC
4.			
5.			
6.			
7.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lindera benzoin*	40	Yes	FAC
2. *Carpinus caroliniana*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	
Herb Stratum (Plot size: ____)			
1. *Typha latifolia*	40	Yes	OBL
2. *Juncus effusus*	10	No	FACW
3. *Carex sp.*	25	Percent cover cannot be greater than a previous species	NI
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	0	= 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:	6	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply By:	
OBL species	40	x 1 =	40
FACW species	30	x 2 =	60
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals	150	(A)	340 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

____ 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 Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes _✓_ No ____

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

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC). A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).

SOIL

Sampling Point: W-DJB-76_PSS-1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10YR 5/1	90	10YR 4/6	10	C	M	Silty Clay 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)**
___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
___ Sandy Gleyed Matrix (S4)
___ Umbric Surface (F13) **(MLRA 136, 122)**
___ Sandy Redox (S5)
___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
___ Stripped Matrix (S6)
___ Red Parent Material (F21) **(MLRA 127, 147)**

___ 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)

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: None
Depth (inches):

Hydric Soil Present? Yes _✓_ No ____

Remarks:

A positive indication of hydric soil was observed.

Hydrology Photos

Soil Photos

Photo of Sample Plot North

Photo of Sample Plot East

Photo of Sample Plot South

Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW01

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.679589 | Long: -78.657880 | Datum: WGS84

Soil Map Unit Name: CeB, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks: Wetland 1, PEM, Mixed Forb - Graminoid Wet Meadow
Low quality habitat, likely produced from historic surface disturbance.
10 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW01

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.	Rosa multiflora	10	Yes	FAC
2.	Elaeagnus umbellata	10	Yes	UPL
3.	Vaccinium angustifolium	3	No	FACU
4.	Rubus allegheniensis	2	No	FACU
5.				
6.				
		25	= Total Cover	

50% of total cover: 12.5 20% of total cover: 5.0

Herb Stratum (Plot size: 5')				
1.	Scirpus cyperinus	50	Yes	FACW
2.	Solidago rugosa	25	Yes	FAC
3.	Lysimachia quadrifolia	5	No	FACU
4.	Euthamia graminifolia	5	No	FAC
5.	Agrostis gigantea	5	No	FACW
6.	Symphyotrichum lateriflorum	5	No	FACW
7.	Symphyotrichum novae-angliae	2	No	FACW
8.	Solidago juncea	1	No	UPL
9.	Fragaria vesca	1	No	FACU
10.	Symphyotrichum prenanthoides	1	No	FAC
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 75.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	62	X 2 =	124
FAC species	41	X 3 =	123
FACU species	11	X 4 =	44
UPL species	11	X 5 =	55
Column Totals:	125 (A)		346 (B)

Prevalence Index = B/A = 2.77

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

The rose shrub is multi-stemmed and growing in hydric soils so the indicator was changed from FACU to FAC.

SOIL

Sampling Point: JJW01

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 5/6	100					ML	disturbed
5-12	10YR 5/1	60	7.5YR 5/6	40	C	M	ML	pore lining redox too

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

These soils are strange and appear to have been disturbed. The surface is particularly odd.

View facing northeast toward Sampling Point JJW01

View facing sotheast toward Sampling Point JJW01

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW02

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.679868 | Long: -78.657829 | Datum: WGS84

Soil Map Unit Name: CeB, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest between Wetlands 1 & 2

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW02

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	50	Yes	FAC
2.	Quercus rubra	10	No	FACU
3.	Betula lenta	10	No	FACU
4.				
5.				
6.				
		70	= Total Cover	

50% of total cover: 35 20% of total cover: 14

Sapling Stratum (Plot size: 15')				
1.	Betula lenta	5	Yes	FACU
2.	Celtis occidentalis	5	Yes	FACU
3.				
4.				
5.				
6.				
		10	= Total Cover	

50% of total cover: 5.0 20% of total cover: 2.0

Shrub Stratum (Plot size: 15')				
1.	Rubus occidentalis	25	Yes	UPL
2.	Rosa multiflora	5	No	FACU
3.				
4.				
5.				
6.				
		30	= Total Cover	

50% of total cover: 15.0 20% of total cover: 6.0

Herb Stratum (Plot size: 5')				
1.	Solidago rugosa	25	Yes	FAC
2.	Symphyotrichum lateriflorum	10	Yes	FACW
3.	Poaceae (unknown no seed)	5	No	
4.	Dactylis glomerata	3	No	FACU
5.	Clinopodium vulgare	2	No	UPL
6.				
7.				
8.				
9.				
10.				
11.				
		45	= Total Cover	

50% of total cover: 22.5 20% of total cover: 9.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	10	X 2 =	20
FAC species	75	X 3 =	225
FACU species	38	X 4 =	152
UPL species	27	X 5 =	135
Column Totals:	150 (A)		532 (B)

Prevalence Index = B/A = 3.55

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW02

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					ML	
4-11	10YR 5/4	80	7.5YR 5/6	20	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point JJW02

View facing south toward Sampling Point JJW02

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW03

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.679929 | Long: -78.657723 | Datum: WGS84

Soil Map Unit Name: CeB, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks: Wetland 2, PEM with rim of PFO on west side around a temporary pool
Mixed Forb - Graminoid Wet Meadow and Sparsely Vegetated Vernal Pool
16 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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) 6, perched
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (Inches) 0

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

Rain yesterday may contribute to the current hydrology

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW03

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	10	Yes	FAC
2.				
3.				
4.				
5.				
6.				
		10	= Total Cover	

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

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Scirpus cyperinus	50	Yes	FACW
2.	Microstegium vimineum	10	No	FAC
3.	Carex lurida	5	No	OBL
4.	Parathelypteris noveboracensis	5	No	FAC
5.	Juncus tenuis	5	No	FAC
6.	Euthamia graminifolia	3	No	FAC
7.	Dichanthelium clandestinum	3	No	FAC
8.	Solidago rugosa	2	No	FAC
9.	Bidens frondosa	1	No	FACW
10.	Lysimachia quadrifolia	1	No	FACU
11.				
		85	= Total Cover	

50% of total cover: 42.5 20% of total cover: 17.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	X 1 =	5
FACW species	51	X 2 =	102
FAC species	38	X 3 =	114
FACU species	1	X 4 =	4
UPL species	0	X 5 =	0
Column Totals:	95 (A)		225 (B)

Prevalence Index = B/A = 2.37

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

About 15% of the ground is bare mud

SOIL

Sampling Point: JJW03

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 5/1	90	7.5YR 5/6	10	C	PL	ML	
6-14	10YR 5/1	75	7.5YR 5/8	25	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing southwest toward Sampling Point JJW03

View facing northwest toward Sampling Point JJW03

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW04

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.680093 | Long: -78.657804 | Datum: WGS84

Soil Map Unit Name: CeB, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest between Wetlands 2 & 3

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW04

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Quercus rubra	25	Yes	FACU
2.	Pinus resinosa	10	Yes	FACU
3.	Populus grandidentata	5	No	FACU
4.	Acer rubrum	5	No	FAC
5.	Liriodendron tulipifera	5	No	FACU
6.				

50 = Total Cover

50% of total cover: 25 20% of total cover: 10

Sapling Stratum (Plot size: 15')				
1.	Acer rubrum	2	No	FAC
2.	Quercus rubra	1	No	FACU
3.	Fagus grandifolia	1	No	FACU
4.				
5.				
6.				

4 = Total Cover

50% of total cover: 2.0 20% of total cover: 0.8

Shrub Stratum (Plot size: 15')				
1.	Vaccinium stamineum	3	No	FACU
2.	Rubus phoenicolasius	1	No	FACU
3.				
4.				
5.				
6.				

4 = Total Cover

50% of total cover: 2.0 20% of total cover: 0.8

Herb Stratum (Plot size: 5')				
1.	Danthonia spicata	25	Yes	UPL
2.	Poaceae (unknown, no seed)	10	No	
3.	Dichanthelium clandestinum	10	No	FAC
4.	Symphyotrichum prenanthoides	5	No	FAC
5.	Potentilla norvegica	5	No	FACU
6.	Solidago bicolor	3	No	UPL
7.	Symphyotrichum lateriflorum	2	No	FACW
8.				
9.				
10.				
11.				

60 = Total Cover

50% of total cover: 30.0 20% of total cover: 12.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

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: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	2	X 2 =	4
FAC species	22	X 3 =	66
FACU species	56	X 4 =	224
UPL species	28	X 5 =	140
Column Totals:	108 (A)		434 (B)

Prevalence Index = B/A = 4.02

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW04

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					ML	
4-13	10YR 5/4	90	7.5YR 6/8	10	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point JJW04

View facing south toward Sampling Point JJW04

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/20/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW05

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.680097 | Long: -78.658025 | Datum: WGS84

Soil Map Unit Name: CeB, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Hydric Soil Present? Yes ✓ No ____

Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland ? Yes ✓ No ____

Remarks: Wetland 3, PEM but rimmed with PFO
Stiltgrass Wetland
14 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

This wetland probably holds a shallow pool of water earlier in the growing season.

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW05

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	5	Yes	FAC
2.				
3.				
4.				
5.				
6.				
		5	= Total Cover	

50% of total cover: 2 20% of total cover: 1

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Microstegium vimineum	25	Yes	FAC
2.	Leersia virginica	25	Yes	FACW
3.	Lycopus uniflorus	10	No	OBL
4.	Symphyotrichum prenanthoides	10	No	FAC
5.	Bidens frondosa	2	No	FACW
6.	Symphyotrichum lateriflorum	2	No	FACW
7.	Impatiens capensis	1	No	FACW
8.				
9.				
10.				
11.				
		75	= Total Cover	

50% of total cover: 37.5 20% of total cover: 15.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	X 1 =	10
FACW species	30	X 2 =	60
FAC species	40	X 3 =	120
FACU species	0	X 4 =	0
UPL species	0	X 5 =	0
Column Totals:	80 (A)		190 (B)

Prevalence Index = B/A = 2.38

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

About 25% of the plot surface is bare mud

SOIL

Sampling Point: JJW05

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 5/1	95	7.5YR 5/8	5	C	PL	ML	
8-11	N 5/0	90	10R 4/6	10	C	M	ML	
11-14	N 4/0	100					ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing southwest toward Sampling Point JJW05

View facing west toward Sampling Point JJW05

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW06

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.679313 | Long: -78.657135 | Datum: WGS84

Soil Map Unit Name: GtC, Gilpin-Rayne Complex | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 4, PEM, Mixed Forb - Graminoid Wet Meadow
14 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Sparsely Vegetated Concave Surface (B8)
____ Saturation (A3)	✓ Oxidized Rhizospheres on Living Roots(C3)	✓ Drainage Patterns (B10)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Saturation Visible on Aerial Imagery(C9)
____ Iron Deposits(B5)		____ Stunted or Stressed Plants (D1)
____ Inundation Visible on Aerial imagery (B7)		____ Geomorphic Position (D2)
✓ Water-Stained Leaves (B9)		____ Shallow Aquitard (D3)
____ Aquatic Fauna (B13)		____ Microtopographic Relief (D4)
		✓ FAC-Neutral Test (D5)

Secondary indicators (minimum of two required)

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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

This wetland is below a storm water basin but not below the outfall.

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW06

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Scirpus cyperinus	75	Yes	FACW
2.	Juncus tenuis	10	No	FAC
3.	Juncus effusus	5	No	FACW
4.	Echinochloa crus-galli	5	No	FAC
5.	Lotus corniculatus	3	No	FACU
6.	Solidago canadensis	1	No	FACU
7.	Euthamia graminifolia	1	No	FAC
8.				
9.				
10.				
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	80	X 2 =	160
FAC species	16	X 3 =	48
FACU species	4	X 4 =	16
UPL species	0	X 5 =	0
Column Totals:	100 (A)		224 (B)

Prevalence Index = B/A = 2.24

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW06

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
0-3	10YR 5/1	95	7.5YR 5/6	5	C	PL	ML	
3-10	10YR 6/1	90	7.5YR 5/8	10	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing west toward Sampling Point JJW06

View facing south toward Sampling Point JJW06

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW07

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 5

Subregion(LRR or MLRA): LRR N | Lat: 40.679309 | Long: -78.657604 | Datum: WGS84

Soil Map Unit Name: UdC, Bethesda | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest between Wetlands 1 & 4

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW07

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Pinus strobus	25	Yes	FACU
2.	Larix decidua	25	Yes	UPL
3.				
4.				
5.				
6.				
		50	= Total Cover	

50% of total cover: 25 20% of total cover: 10

Sapling Stratum (Plot size: 15')				
1.	Quercus rubra	1	No	FACU
2.				
3.				
4.				
5.				
6.				
		1	= Total Cover	

50% of total cover: 0.5 20% of total cover: 0.2

Shrub Stratum (Plot size: 15')				
1.	Rubus allegheniensis	10	Yes	FACU
2.	Elaeagnus umbellata	3	No	UPL
3.	Lonicera morrowii	2	No	FACU
4.				
5.				
6.				
		15	= Total Cover	

50% of total cover: 7.5 20% of total cover: 3.0

Herb Stratum (Plot size: 5')				
1.	Solidago rugosa	50	Yes	FAC
2.	Danthonia spicata	20	Yes	UPL
3.	Fragaria virginiana	10	No	FACU
4.	Solidago juncea	5	No	UPL
5.	Symphyotrichum lateriflorum	5	No	FACW
6.	Agrostis scabra	3	No	FAC
7.	Clinopodium vulgare	2	No	UPL
8.	Lotus corniculatus	2	No	FACU
9.	Achillea millefolium	1	No	FACU
10.	Daucus carota	1	No	UPL
11.	Dianthus armeria	1	No	UPL
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 20.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	5	X 2 =	10
FAC species	53	X 3 =	159
FACU species	51	X 4 =	204
UPL species	57	X 5 =	285
Column Totals:	166 (A)		658 (B)

Prevalence Index = B/A = 3.96

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW07

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
0-1	10YR 4/3	100					ML	
1-4	10YR 5/3	100					ML	stony
4-9	10YR 5/6	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point JJW07

View facing south toward Sampling Point JJW07

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW08

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Depression | Local relief(concave,convex,none): Concave | Slope(%): 1

Subregion(LRR or MLRA): LRR N | Lat: 40.680469 | Long: -78.658711 | Datum: WGS84

Soil Map Unit Name: CeC, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 5, PFO/PEM, Red Maple Palustrine Forest with herbaceous opening
15 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW08

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Populus tremuloides	25	Yes	FAC
2.	Acer rubrum	10	Yes	FAC
3.				
4.				
5.				
6.				
		35	= Total Cover	

50% of total cover: 17 20% of total cover: 7

Sapling Stratum (Plot size: 15')				
1.	Betula lenta	1	No	FACU
2.	Fraxinus americana	1	No	FACU
3.				
4.				
5.				
6.				
		2	= Total Cover	

50% of total cover: 1.0 20% of total cover: 0.4

Shrub Stratum (Plot size: 15')				
1.	Elaeagnus umbellata	1	No	UPL
2.				
3.				
4.				
5.				
6.				
		1	= Total Cover	

50% of total cover: 0.5 20% of total cover: 0.2

Herb Stratum (Plot size: 5')				
1.	Dichanthelium clandestinum	30	Yes	FAC
2.	Solidago rugosa	25	Yes	FAC
3.	Symphyotrichum lateriflorum	20	Yes	FACW
4.	Solidago canadensis	10	No	FACU
5.	Agrostis gigantea	5	No	FACW
6.	Euthamia graminifolia	5	No	FAC
7.	Potentilla norvegica	2	No	FACU
8.	Clinopodium vulgare	1	No	UPL
9.	Symphyotrichum lanceolatum	1	No	FACW
10.	Juncus tenuis	1	No	FAC
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	26	X 2 =	52
FAC species	96	X 3 =	288
FACU species	14	X 4 =	56
UPL species	2	X 5 =	10
Column Totals:	138 (A)		406 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW08

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
0-7	10YR 5/1	97	7.5YR 5/6	3	C	PL	ML	
7-13	10YR 6/1	95	7.5YR 5/8	5	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing west toward Sampling Point JJW08

View facing south toward Sampling Point JJW08

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW09

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 4

Subregion(LRR or MLRA): LRR N | Lat: 40.680480 | Long: -78.659053 | Datum: WGS84

Soil Map Unit Name: CeC, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest between Wetlands 5 & 6

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW09

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Prunus serotina	30	Yes	FACU
2.	Populus grandidentata	5	No	FACU
3.	Quercus rubra	5	No	FACU
4.				
5.				
6.				
		40	= Total Cover	

50% of total cover: 20 20% of total cover: 8

Sapling Stratum (Plot size: 15')				
1.	Prunus serotina	5	Yes	FACU
2.	Populus grandidentata	5	Yes	FACU
3.				
4.				
5.				
6.				
		10	= Total Cover	

50% of total cover: 5.0 20% of total cover: 2.0

Shrub Stratum (Plot size: 15')				
1.	Lonicera morrowii	25	Yes	FACU
2.	Rubus occidentalis	20	Yes	UPL
3.	Rubus allegheniensis	3	No	FACU
4.	Aralia spinosa	2	No	FAC
5.				
6.				
		50	= Total Cover	

50% of total cover: 25.0 20% of total cover: 10.0

Herb Stratum (Plot size: 5')				
1.	Solidago rugosa	50	Yes	FAC
2.	Agrostis perennans	5	No	FACU
3.	Schedonorus pratensis	3	No	FACU
4.	Alliaria petiolata	2	No	FACU
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		60	= Total Cover	

50% of total cover: 30.0 20% of total cover: 12.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 16.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	52	X 3 =	156
FACU species	88	X 4 =	352
UPL species	20	X 5 =	100
Column Totals:	160 (A)		608 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW09

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
0-1	10YR 3/2	100					ML	
1-4	10YR 4/3	100					ML	stony
4-10	10YR 5/6	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point JJW09

View facing south toward Sampling Point JJW09

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW10

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.680423 | Long: -78.659381 | Datum: WGS84

Soil Map Unit Name: CeC, Cookport & Ernest | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 6, PEM with rim of PFO, Cattail Marsh
27 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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): 2, in places
Water Table Present?	Yes ✓	No ____	Depth (Inches) 4, perched
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (Inches) 0

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW10

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Alnus glutinosa	10	Yes	FACW
2.				
3.				
4.				
5.				
6.				
		10	= Total Cover	

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

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Typha latifolia	40	Yes	OBL
2.	Leersia oryzoides	40	Yes	OBL
3.	Onoclea sensibilis	5	No	FACW
4.	Glyceria striata	5	No	OBL
5.	Mimulus alatus	3	No	OBL
6.	Juncus effusus	2	No	FACW
7.	Symphyotrichum novae-angliae	2	No	FACW
8.	Lycopus uniflorus	1	No	OBL
9.	Epilobium coloratum	1	No	FACW
10.	Carex scoparia	1	No	FACW
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	89	X 1 =	89
FACW species	21	X 2 =	42
FAC species	0	X 3 =	0
FACU species	0	X 4 =	0
UPL species	0	X 5 =	0
Column Totals:	110 (A)		131 (B)

Prevalence Index = B/A = 1.19

Hydrophytic Vegetation Indicators:

- ✓ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

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

SOIL

Sampling Point: JJW10

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 5/1	70	2.5YR 5/4	30	C	PL	ML	
9-16	10YR 6/1	90	5YR 5/8	10	C	M	CL	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: clay loam

Depth (inches): 9

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing west toward Sampling Point JJW10

View facing north toward Sampling Point JJW10

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW11

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.679801 | Long: -78.660362 | Datum: WGS84

Soil Map Unit Name: GWF, Gilpin-Weikert | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland successional shrublands between Wetlands 6 & 7

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW11

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
	10 = Total Cover		

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

Sapling Stratum (Plot size: 15')			
1. Fraxinus americana	1	No	FACU
2.			
3.			
4.			
5.			
6.			
	1 = Total Cover		

50% of total cover: 0.5 20% of total cover: 0.2

Shrub Stratum (Plot size: 15')			
1. Lonicera morrowii	75	Yes	FACU
2. Aralia spinosa	20	Yes	FAC
3. Rubus phoenicolasius	1	No	FACU
4.			
5.			
6.			
	96 = Total Cover		

50% of total cover: 48.0 20% of total cover: 19.2

Herb Stratum (Plot size: 5')			
1. Solidago rugosa	20	Yes	FAC
2. Fragaria virginiana	3	No	FACU
3. Symphyotrichum lateriflorum	2	No	FACW
4. Tussilago farfara	2	No	FACU
5. Clinopodium vulgare	1	No	UPL
6. Dichanthelium clandestinum	1	No	FAC
7. Rumex crispus	1	No	FAC
8.			
9.			
10.			
11.			
	30 = Total Cover		

50% of total cover: 15.0 20% of total cover: 6.0

Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	5	Yes	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		

50% of total cover: 2.5 20% of total cover: 1.0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	2	X 2 =	4
FAC species	42	X 3 =	126
FACU species	97	X 4 =	388
UPL species	1	X 5 =	5
Column Totals:	142 (A)		523 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW11

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
0-3	10YR 4/3	100					ML	
3-12	10YR 5/6	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point JJW11

View facing south toward Sampling Point JJW11

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW12

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.679950 | Long: -78.661000 | Datum: WGS84

Soil Map Unit Name: UDF, Udorthents | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 7, PEM, Cattail Marsh
20 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	✓ Hydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
✓ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots(C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
✓ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	✓ Saturation Visible on Aerial Imagery(C9)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits(B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial imagery (B7)		____ Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		✓ FAC-Neutral Test (D5)

Secondary indicators (minimum of two required)

✓ Surface Soil Cracks (B6)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (Inches): ____
Water Table Present?	Yes ✓	No ____	Depth (Inches) 3, perched
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (Inches) 0

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants. Sampling Point: JJW12

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Typha latifolia	75	Yes	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		75	= Total Cover	

50% of total cover: 37.5 20% of total cover: 15.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	X 1 =	75
FACW species	0	X 2 =	0
FAC species	0	X 3 =	0
FACU species	0	X 4 =	0
UPL species	0	X 5 =	0
Column Totals:	75 (A)		75 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

- ✓ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

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

About 25% of the herbaceous plot is bare mud.

SOIL

Sampling Point: JJW12

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
0-14	10YR 4/1	100					OL	histosol with H2S odor

[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 (B5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)(MLRA147,148)
- ___ 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 136,147)
- ___ 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 present):

Type: none

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

View facing northwest toward Sampling Point JJW12

View facing southwest toward Sampling Point JJW12

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW13

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.676355 | Long: -78.660380 | Datum: WGS84

Soil Map Unit Name: GwB, Gilpin-Weikert | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 8, PEM, Cattail Marsh just prior to roadway cross-culvert
4 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW13

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Typha latifolia	50	Yes	OBL
2.	Solidago rugosa	25	Yes	FAC
3.	Phleum pratense	10	No	FACU
4.	Dactylis glomerata	5	No	FACU
5.	Scirpus cyperinus	3	No	FACW
6.	Symphyotrichum prenanthoides	3	No	FAC
7.	Clinopodium vulgare	1	No	UPL
8.	Fragaria virginiana	1	No	FACU
9.				
10.				
11.				
		98	= Total Cover	

50% of total cover: 49.0 20% of total cover: 19.6

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	X 1 =	50
FACW species	3	X 2 =	6
FAC species	28	X 3 =	84
FACU species	16	X 4 =	64
UPL species	1	X 5 =	5
Column Totals:	98 (A)		209 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

- ☐ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

About 2% of the herbaceous plot is bare mud.

SOIL

Sampling Point: JJW13

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/1	97	7.5YR 4/6	3	C	PL	ML	stony, refusal

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: rock

Depth (inches): 10

Hydric Soil Present? Yes ✓ No ____

Remarks:

The rock may not be restrictive, it is likely rocks with porous gaps around each but it is impossible to shovel below 10 inches.

View facing south toward Sampling Point JJW13

View facing east toward Sampling Point JJW13

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW14

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 4

Subregion(LRR or MLRA): LRR N | Lat: 40.676271 | Long: -78.660476 | Datum: WGS84

Soil Map Unit Name: UDC, Udorthents | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland meadow with red pine restoration plantings

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW14

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Pinus resinosa	15	Yes	FACU
2.	Betula lenta	10	Yes	FACU
3.				
4.				
5.				
6.				

25 = Total Cover

50% of total cover: 12 20% of total cover: 5

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.	Rubus allegheniensis	3	No	FACU
2.				
3.				
4.				
5.				
6.				

3 = Total Cover

50% of total cover: 1.5 20% of total cover: 0.6

Herb Stratum (Plot size: 5')				
1.	Phleum pratense	60	Yes	FACU
2.	Solidago rugosa	15	No	FAC
3.	Dactylis glomerata	10	No	FACU
4.	Euthamia graminifolia	10	No	FAC
5.	Schedonorus pratensis	5	No	FACU
6.				
7.				
8.				
9.				
10.				
11.				

100 = Total Cover

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

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: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	25	X 3 =	75
FACU species	103	X 4 =	412
UPL species	0	X 5 =	0
Column Totals:	128 (A)		487 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW14

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
0-3	10YR 3/2	100					ML	
3-10	10YR 4/3	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing south toward Sampling Point JJW14

View facing west toward Sampling Point JJW14

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW15

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Terrace | Local relief(concave,convex,none): None | Slope(%): 0

Subregion(LRR or MLRA): LRR N | Lat: 40.676301 | Long: -78.652561 | Datum: WGS84

Soil Map Unit Name: UDC, Udorthents | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest north of Wetland 9

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW15

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Populus grandidentata	30	Yes	FACU
2.	Tsuga canadensis	10	No	FACU
3.	Quercus rubra	10	No	FACU
4.	Acer rubrum	10	No	FAC
5.	Robinia pseudoacacia	5	No	FACU
6.				
		65	= Total Cover	

50% of total cover: 32 20% of total cover: 13

Sapling Stratum (Plot size: 15')				
1.	Robinia pseudoacacia	10	Yes	FACU
2.	Quercus rubra	3	No	FACU
3.	Fraxinus americana	3	No	FACU
4.	Populus grandidentata	2	No	FACU
5.	Liriodendron tulipifera	1	No	FACU
6.	Betula lenta	1	No	FACU
		20	= Total Cover	

50% of total cover: 10.0 20% of total cover: 4.0

Shrub Stratum (Plot size: 15')				
1.	Aralia spinosa	2	No	FAC
2.	Crataegus macrosperma	1	No	UPL
3.	Rubus occidentalis	1	No	UPL
4.				
5.				
6.				
		4	= Total Cover	

50% of total cover: 2.0 20% of total cover: 0.8

Herb Stratum (Plot size: 5')				
1.	Solidago rugosa	50	Yes	FAC
2.	Fragaria vesca	10	No	FACU
3.	Arctium minus	2	No	FACU
4.	Symphyotrichum lateriflorum	1	No	FACW
5.	Solidago caesia	1	No	FACU
6.	Taraxacum officinale	1	No	FACU
7.				
8.				
9.				
10.				
11.				
		65	= Total Cover	

50% of total cover: 32.5 20% of total cover: 13.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	1	X 2 =	2
FAC species	62	X 3 =	186
FACU species	89	X 4 =	356
UPL species	2	X 5 =	10
Column Totals:	154 (A)		554 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW15

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
0-3	10YR 4/3	100					ML	stony
3-8	10YR 5/6	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing south toward Sampling Point JJW15

View facing west toward Sampling Point JJW15

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW16

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Depression | Local relief(concave,convex,none): Concave | Slope(%): 4

Subregion(LRR or MLRA): LRR N | Lat: 40.676147 | Long: -78.652295 | Datum: WGS84

Soil Map Unit Name: UDC, Udorthents | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 9, PUB with PEM fringe, Man-Made Pond
23 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

✓ Surface Water (A1)	____ True Aquatic Plants (B14)	✓ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	✓ Oxidized Rhizospheres on Living Roots(C3)	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	✓ Saturation Visible on Aerial Imagery(C9)
____ Iron Deposits(B5)		____ Stunted or Stressed Plants (D1)
✓ Inundation Visible on Aerial imagery (B7)		____ Geomorphic Position (D2)
____ Water-Stained Leaves (B9)		____ Shallow Aquitard (D3)
✓ Aquatic Fauna (B13)		____ Microtopographic Relief (D4)
		✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ____	Depth (Inches): >12, in places	
Water Table Present?	Yes ____	No ✓	Depth (Inches) ____	
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (Inches) 0+, in places	Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW16

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Leersia oryzoides	50	Yes	OBL
2.	Euthamia graminifolia	25	Yes	FAC
3.	Agrostis gigantea	15	No	FACW
4.	Bidens frondosa	5	No	FACW
5.	Symphyotrichum lanceolatum	3	No	FACW
6.	Juncus tenuis	2	No	FAC
7.				
8.				
9.				
10.				
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	X 1 =	50
FACW species	23	X 2 =	46
FAC species	27	X 3 =	81
FACU species	0	X 4 =	0
UPL species	0	X 5 =	0
Column Totals:	100 (A)		177 (B)

Prevalence Index = B/A = 1.77

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW16

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	95	7.5YR 4/6	5	C	PL	ML	
6-12	10YR 5/1	90	7.5YR 4/6	10	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing south toward Sampling Point JJW16

View facing east toward Sampling Point JJW16

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW17

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Concave | Slope(%): 3

Subregion(LRR or MLRA): LRR N | Lat: 40.678601 | Long: -78.656893 | Datum: WGS84

Soil Map Unit Name: GtC, Gilpin-Rayne | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 10, PFO, Red Maple - Blackgum Palustrine Forest
7 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Sparsely Vegetated Concave Surface (B8)
____ Saturation (A3)	✓ Oxidized Rhizospheres on Living Roots(C3)	✓ Drainage Patterns (B10)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Saturation Visible on Aerial Imagery(C9)
____ Iron Deposits(B5)		____ Stunted or Stressed Plants (D1)
____ Inundation Visible on Aerial imagery (B7)		____ Geomorphic Position (D2)
____ Water-Stained Leaves (B9)		✓ Shallow Aquitard (D3)
____ Aquatic Fauna (B13)		____ Microtopographic Relief (D4)
		✓ FAC-Neutral Test (D5)

Secondary indicators (minimum of two required)

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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW17

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	20	Yes	FAC
2.	Nyssa sylvatica	20	Yes	FAC
3.	Quercus montana	10	Yes	UPL
4.				
5.				
6.				

50 = Total Cover

50% of total cover: 25 20% of total cover: 10

Sapling Stratum (Plot size: 15')				
1.	Liriodendron tulipifera	1	No	FACU
2.				
3.				
4.				
5.				
6.				

1 = Total Cover

50% of total cover: 0.5 20% of total cover: 0.2

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Microstegium vimineum	30	Yes	FAC
2.	Scirpus cyperinus	20	Yes	FACW
3.	Agrostis gigantea	10	No	FACW
4.	Epilobium coloratum	10	No	FACW
5.	Lysimachia quadrifolia	5	No	FACU
6.	Juncus effusus	5	No	FACW
7.	Solidago rugosa	5	No	FAC
8.	Potentilla norvegica	5	No	FACU
9.	Phleum pratense	5	No	FACU
10.	Dryopteris intermedia	3	No	FACU
11.	Symphyotrichum lateriflorum	2	No	FACW

100 = Total Cover

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	47	X 2 =	94
FAC species	75	X 3 =	225
FACU species	19	X 4 =	76
UPL species	10	X 5 =	50
Column Totals:	151 (A)		445 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW17

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					ML	
2-7	10YR 5/1	95	7.5YR 4/6	5	C	PL	ML	
7-12	10YR 6/2	95	5YR 5/8	5	C	M	CL	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: clay loam

Depth (inches): 7

Hydric Soil Present? Yes ✓ No ____

Remarks:

Forgot to take photographs of Wetland 17

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/21/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW18

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 3

Subregion(LRR or MLRA): LRR N | Lat: 40.678503 | Long: -78.656959 | Datum: WGS84

Soil Map Unit Name: GtC, Gilpin-Rayne | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest near Wetland 10

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW18

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Quercus rubra	25	Yes	FACU
2.	Nyssa sylvatica	25	Yes	FAC
3.	Acer rubrum	15	Yes	FAC
4.	Quercus montana	10	No	UPL
5.	Magnolia acuminata	10	No	FACU
6.				
		85	= Total Cover	

50% of total cover: 42 20% of total cover: 17

Sapling Stratum (Plot size: 15')				
1.	Nyssa sylvatica	15	Yes	FAC
2.	Quercus rubra	5	No	FACU
3.	Sassafras albidum	5	No	FACU
4.	Acer rubrum	3	No	FAC
5.	Betula lenta	2	No	FACU
6.				
		30	= Total Cover	

50% of total cover: 15.0 20% of total cover: 6.0

Shrub Stratum (Plot size: 15')				
1.	Vaccinium angustifolium	5	Yes	FACU
2.				
3.				
4.				
5.				
6.				
		5	= Total Cover	

50% of total cover: 2.5 20% of total cover: 1.0

Herb Stratum (Plot size: 5')				
1.	Danthonia spicata	10	Yes	UPL
2.	Parathelypteris noveboracensis	1	No	FAC
3.	Pteridium aquilinum	1	No	FACU
4.	Mitchella repens	1	No	FACU
5.	Agrostis perennans	1	No	FACU
6.	Juncus tenuis	1	No	FAC
7.				
8.				
9.				
10.				
11.				
		15	= Total Cover	

50% of total cover: 7.5 20% of total cover: 3.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	60	X 3 =	180
FACU species	55	X 4 =	220
UPL species	20	X 5 =	100
Column Totals:	135 (A)		500 (B)

Prevalence Index = B/A = 3.70

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW18

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
0-1	10YR 2/1	100					SL	
1-4	10YR 4/3	100					SL	
4-12	10YR 5/6	100					SL	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing southwest toward Sampling Point JJW18

View facing north toward Sampling Point JJW18

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW19

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Swale | Local relief(concave,convex,none): Concave | Slope(%): 1

Subregion(LRR or MLRA): LRR N | Lat: 40.682489 | Long: -78.658768 | Datum: WGS84

Soil Map Unit Name: GwC, Gilpin-Weikert | NWI classification: UPLAND

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

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

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

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

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

Remarks: Wetland 11, PEM, Mixed Forb - Graminoid Wet Meadow
Low quality, marginal habitat
10 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW19

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')			
1. Solidago rugosa	95	Yes	FAC
2. Dactylis glomerata	2	No	FACU
3. Coronilla varia	1	No	UPL
4. Fragaria virginiana	1	No	FACU
5. Clinopodium vulgare	1	No	UPL
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	95	X 3 =	285
FACU species	3	X 4 =	12
UPL species	2	X 5 =	10
Column Totals:	100 (A)		307 (B)

Prevalence Index = B/A = 3.07

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

This site is very marginal wetland. It is FAC-dominated and hydrology and soils are borderline.

SOIL

Sampling Point: JJW19

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	100					SL	stony
6-10	10YR 5/1	100					ML	very stony, refusal

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: stone

Depth (inches): 10

Hydric Soil Present? Yes ✓ No ____

Remarks:

The stone may not be restrictive. It is very likely cobble-sized rock that is porous around each stone but it was impossible to shovel below 10 inches throughout this area.

View facing north toward Sampling Point JJW19

View facing southeast toward Sampling Point JJW19

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW20

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Swale | Local relief(concave,convex,none): Concave | Slope(%): 1

Subregion(LRR or MLRA): LRR N | Lat: 40.682617 | Long: -78.659020 | Datum: WGS84

Soil Map Unit Name: GwC, Gilpin-Weikert | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland meadow swale a short distance west of Wetland 11

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW20

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Larix decidua	25	Yes	UPL
2.	Pinus resinosa	10	Yes	FACU
3.	Robinia pseudoacacia	5	No	FACU
4.				
5.				
6.				
		40	= Total Cover	

50% of total cover: 20 20% of total cover: 8

Sapling Stratum (Plot size: 15')				
1.	Robinia pseudoacacia	30	Yes	FACU
2.				
3.				
4.				
5.				
6.				
		30	= Total Cover	

50% of total cover: 15.0 20% of total cover: 6.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Dactylis glomerata	80	Yes	FACU
2.	Agrostis perennans	5	No	FACU
3.	Euthamia graminifolia	3	No	FAC
4.	Coronilla varia	3	No	UPL
5.	Clinopodium vulgare	3	No	UPL
6.	Symphyotrichum lateriflorum	2	No	FACW
7.	Fragaria virginiana	1	No	FACU
8.	Daucus carota	1	No	UPL
9.	Alliaria petiolata	1	No	FACU
10.	Oxalis stricta	1	No	FACU
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	2	X 2 =	4
FAC species	3	X 3 =	9
FACU species	133	X 4 =	532
UPL species	32	X 5 =	160
Column Totals:	170 (A)		705 (B)

Prevalence Index = B/A = 4.15

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW20

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
0-1	10YR 3/2	100					ML	stony
1-4	10YR 4/3	100					ML	very stony, refusal

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: stone

Depth (inches): 4

Hydric Soil Present? Yes ____ No ✓

Remarks:

The stone may not have been restrictive to water. It may have been a bed of cobble-sized stone. It was restrictive to a shovel throughout this area at about 4 inches below the surface.

View facing northwest toward Sampling Point JJW20

View facing southeast toward Sampling Point JJW20

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW21

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Concave | Slope(%): 4

Subregion(LRR or MLRA): LRR N | Lat: 40.676422 | Long: -78.650307 | Datum: WGS84

Soil Map Unit Name: LdF, Laidig | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 12, PFO with PEM opening, Red Maple - Black Ash Palustrine Forest
13 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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, in places	
Water Table Present?	Yes ✓	No ____	Depth (Inches) 6, perched	Wetland Hydrology Present? Yes ✓ No ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (Inches) 0	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW21

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Fraxinus nigra	10	Yes	FACW
2.	Acer rubrum	10	Yes	FAC
3.	Aralia spinosa	10	Yes	FAC
4.				
5.				
6.				

30 = Total Cover

50% of total cover: 15 20% of total cover: 6

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.	Salix discolor	10	Yes	FACW
2.	Lonicera morrowii	2	No	FACU
3.				
4.				
5.				
6.				

12 = Total Cover

50% of total cover: 6.0 20% of total cover: 2.4

Herb Stratum (Plot size: 5')				
1.	Symphyotrichum novae-angliae	30	Yes	FACW
2.	Glyceria striata	25	No	OBL
3.	Solidago rugosa	10	No	FAC
4.	Symphyotrichum prenanthoides	5	No	FAC
5.	Eupatorium perfoliatum	5	No	FACW
6.	Tussilago farfara	5	No	FACU
7.	Juncus effusus	5	No	FACW
8.	Carex projecta	5	No	FACW
9.	Onoclea sensibilis	3	No	FACW
10.	Persicaria sagittata	1	No	OBL
11.	Epilobium coloratum	1	No	FACW

95 = Total Cover

50% of total cover: 47.5 20% of total cover: 19.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				

0 = Total Cover

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	26	X 1 =	26
FACW species	69	X 2 =	138
FAC species	35	X 3 =	105
FACU species	7	X 4 =	28
UPL species	0	X 5 =	0
Column Totals:	137 (A)		297 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW21

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
0-1	2.5GY 2/1	100					OL	
1-9	N 5/0	95	5YR 4/6	5	C	PL	ML	
9-16	N 4/0	95	5YR 4/6	5	C	M	CL	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: clay loam

Depth (inches): 9

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing west toward Sampling Point 21

View facing south toward Sampling Point 21

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW22

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 8

Subregion(LRR or MLRA): LRR N | Lat: 40.676423 | Long: -78.650606 | Datum: WGS84

Soil Map Unit Name: LdF, Laidig | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest north of Wetland 12 and along right bank of Stream 1

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW22

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharum	40	Yes	FACU
2. Quercus rubra	30	Yes	FACU
3. Magnolia acuminata	10	No	FACU
4. Acer rubrum	10	No	FAC
5. Nyssa sylvatica	5	No	FAC
6.			
	95	= Total Cover	

50% of total cover: 47 20% of total cover: 19

Sapling Stratum (Plot size: 15')			
1. Acer saccharum	5	Yes	FACU
2. Fraxinus nigra	1	No	FACW
3.			
4.			
5.			
6.			
	6	= Total Cover	

50% of total cover: 3.0 20% of total cover: 1.2

Shrub Stratum (Plot size: 15')			
1. Hamamelis virginiana	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
	5	= Total Cover	

50% of total cover: 2.5 20% of total cover: 1.0

Herb Stratum (Plot size: 5')			
1. Solidago caesia	5	Yes	FACU
2. Eurybia divaricata	5	Yes	UPL
3. Carex pensylvanica	3	Yes	UPL
4. Carex blanda	2	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15	= Total Cover	

50% of total cover: 7.5 20% of total cover: 3.0

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	1	X 2 =	2
FAC species	17	X 3 =	51
FACU species	95	X 4 =	380
UPL species	8	X 5 =	40
Column Totals:	121 (A)		473 (B)

Prevalence Index = B/A = 3.91

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW22

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
0-3	10YR 4/3	100					ML	stony
3-10	10YR 5/4	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point 22

View facing north toward Sampling Point 22

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/22/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW23

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Drainageway | Local relief(concave,convex,none): Concave | Slope(%): 2

Subregion(LRR or MLRA): LRR N | Lat: 40.670832 | Long: -78.654306 | Datum: WGS84

Soil Map Unit Name: CvD, Cookport | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest along left bank of Stream 2
Within a natural drainage swale

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW23

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer saccharum	40	Yes	FACU
2.	Quercus rubra	30	Yes	FACU
3.	Acer rubrum	15	No	FAC
4.	Populus grandidentata	5	No	FACU
5.	Betula lenta	5	No	FACU
6.				
		95	= Total Cover	

50% of total cover: 47 20% of total cover: 19

Sapling Stratum (Plot size: 15')				
1.	Acer saccharum	3	No	FACU
2.				
3.				
4.				
5.				
6.				
		3	= Total Cover	

50% of total cover: 1.5 20% of total cover: 0.6

Shrub Stratum (Plot size: 15')				
1.	Hamamelis virginiana	40	Yes	FACU
2.	Crataegus macrosperma	1	No	UPL
3.				
4.				
5.				
6.				
		41	= Total Cover	

50% of total cover: 20.5 20% of total cover: 8.2

Herb Stratum (Plot size: 5')				
1.	Polystichum acrostichoides	5	Yes	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		5	= Total Cover	

50% of total cover: 2.5 20% of total cover: 1.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	15	X 3 =	45
FACU species	128	X 4 =	512
UPL species	1	X 5 =	5
Column Totals:	144 (A)		562 (B)

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW23

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
0-3	10YR 3/2	100					ML	
3-10	10YR 4/4	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing south toward Sampling Point 23

View facing west toward Sampling Point 23

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW24

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.671112 | Long: -78.649417 | Datum: WGS84

Soil Map Unit Name: GtC, Gilpin-Rayne | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 13, PFO, Red Maple Palustrine Forest
21 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	✓ Oxidized Rhizospheres on Living Roots(C3)	✓ Drainage Patterns (B10)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Saturation Visible on Aerial Imagery(C9)
____ Iron Deposits(B5)		____ Stunted or Stressed Plants (D1)
____ Inundation Visible on Aerial imagery (B7)		____ Geomorphic Position (D2)
____ Water-Stained Leaves (B9)		____ Shallow Aquitard (D3)
____ Aquatic Fauna (B13)		____ Microtopographic Relief (D4)
		✓ FAC-Neutral Test (D5)

Secondary indicators (minimum of two required)

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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW24

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	70	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	70 = Total Cover		

50% of total cover: 35 20% of total cover: 14

Sapling Stratum (Plot size: 15')			
1. Acer rubrum	10	Yes	FAC
2. Betula lenta	5	Yes	FACU
3. Prunus serotina	3	No	FACU
4.			
5.			
6.			
	18 = Total Cover		

50% of total cover: 9.0 20% of total cover: 3.6

Shrub Stratum (Plot size: 15')			
1. Rosa multiflora	15	Yes	FAC
2. Hamamelis virginiana	2	No	FACU
3. Sambucus nigra	1	No	FAC
4.			
5.			
6.			
	18 = Total Cover		

50% of total cover: 9.0 20% of total cover: 3.6

Herb Stratum (Plot size: 5')			
1. Leersia oryzoides	50	Yes	OBL
2. Glyceria striata	35	Yes	OBL
3. Symphyotrichum novi-belgii	10	No	FACW
4. Solidago rugosa	3	No	FAC
5. Impatiens capensis	2	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	X 1 =	85
FACW species	12	X 2 =	24
FAC species	99	X 3 =	297
FACU species	10	X 4 =	40
UPL species	0	X 5 =	0
Column Totals:	206 (A)		446 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW24

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/1	97	7.5YR 4/6	3	C	PL	ML	
4-14	N 4/0	90	5YR 4/6	10	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing west toward Sampling Point 24

View facing south toward Sampling Point 24

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW25

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 3

Subregion(LRR or MLRA): LRR N | Lat: 40.671074 | Long: -78.649911 | Datum: WGS84

Soil Map Unit Name: GnB, Gilpin | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland agricultural field west of Wetland 13

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW25

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Setaria faberi	60	Yes	UPL
2.	Echinochloa crus-galli	20	Yes	FAC
3.	Solidago canadensis	10	No	FACU
4.	Cirsium arvense	5	No	FACU
5.	Symphyotrichum lanceolatum	2	No	FACW
6.	Daucus carota	1	No	UPL
7.	Epilobium coloratum	1	No	FACW
8.	Fragaria virginiana	1	No	FACU
9.				
10.				
11.				
		100	= Total Cover	

50% of total cover: 50.0 20% of total cover: 20.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

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: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	3	X 2 =	6
FAC species	20	X 3 =	60
FACU species	16	X 4 =	64
UPL species	61	X 5 =	305
Column Totals:	100 (A)		435 (B)

Prevalence Index = B/A = 4.35

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW25

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	98	7.5YR 4/6	2	C	PL	ML	
4-13	10YR 5/2	100					ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing west toward Sampling Point 25

View facing south toward Sampling Point 25

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW26

Investigator(s): Joe Wilson | Section,Township,Range: N/A

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

Subregion(LRR or MLRA): LRR N | Lat: 40.668712 | Long: -78.656916 | Datum: WGS84

Soil Map Unit Name: CvD, Cookport | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 14, PEM in forest opening, Stiltgrass Wetland (human disturbance)
15 flags

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW26

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0 20% of total cover: 0

Sapling Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
6.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Herb Stratum (Plot size: 5')				
1.	Microstegium vimineum	60	Yes	FAC
2.	Scirpus hattorianus	20	Yes	OBL
3.	Bidens frondosa	3	No	FACW
4.	Mimulus ringens	3	No	OBL
5.	Lycopus uniflorus	2	No	OBL
6.	Persicaria hydropiper	1	No	OBL
7.	Euthamia graminifolia	1	No	FAC
8.				
9.				
10.				
11.				
		90	= Total Cover	

50% of total cover: 45.0 20% of total cover: 18.0

Woody Vine Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	26	X 1 =	26
FACW species	3	X 2 =	6
FAC species	61	X 3 =	183
FACU species	0	X 4 =	0
UPL species	0	X 5 =	0
Column Totals:	90 (A)		215 (B)

Prevalence Index = B/A = 2.39

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: JJW26

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 5/2	97	7.5YR 4/6	3	C	PL	SML	
2-10	10YR 5/1	90	7.5YR 4/6	10	C	M	ML	
10-14	10YR 6/1	75	7.5YR 5/8	25	C	M	CL	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: clay loam

Depth (inches): 10

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing southwest toward Sampling Point 26

View facing northwest toward Sampling Point 26

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW27

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Hillslope | Local relief(concave,convex,none): Convex | Slope(%): 4

Subregion(LRR or MLRA): LRR N | Lat: 40.668815 | Long: -78.657172 | Datum: WGS84

Soil Map Unit Name: CvD, Cookport | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest west of Wetland 14

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW27

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer saccharum	70	Yes	FACU
2.	Quercus montana	20	Yes	UPL
3.	Prunus serotina	5	No	FACU
4.				
5.				
6.				
		95	= Total Cover	

50% of total cover: 47 20% of total cover: 19

Sapling Stratum (Plot size: 15')				
1.	Acer saccharum	1	No	FACU
2.	Quercus rubra	1	No	FACU
3.				
4.				
5.				
6.				
		2	= Total Cover	

50% of total cover: 1.0 20% of total cover: 0.4

Shrub Stratum (Plot size: 15')				
1.	Hamamelis virginiana	10	Yes	FACU
2.				
3.				
4.				
5.				
6.				
		10	= Total Cover	

50% of total cover: 5.0 20% of total cover: 2.0

Herb Stratum (Plot size: 5')				
1.	Carex pensylvanica	2	No	UPL
2.	Brachyelytrum erectum	1	No	FACU
3.	Dryopteris intermedia	1	No	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		4	= Total Cover	

50% of total cover: 2.0 20% of total cover: 0.8

Woody Vine Stratum (Plot size: 30')				
1.	Vitis aestivalis	20	Yes	FACU
2.				
3.				
4.				
5.				
		20	= Total Cover	

50% of total cover: 10.0 20% of total cover: 4.0

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: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	0	X 3 =	0
FACU species	109	X 4 =	436
UPL species	22	X 5 =	110
Column Totals:	131 (A)		546 (B)

Prevalence Index = B/A = 4.17

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW27

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
0-1	10YR 3/2	100					ML	
1-5	10YR 4/3	100					ML	
5-11	10YR 5/6	100					ML	stony

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

View facing northwest toward Sampling Point 27

View facing northeast toward Sampling Point 27

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW28

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Terrace | Local relief(concave,convex,none): Concave | Slope(%): 1

Subregion(LRR or MLRA): LRR N | Lat: 40.669986 | Long: -78.658070 | Datum: WGS84

Soil Map Unit Name: CvD, Cookport | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 15, PFO, Red Maple - Blackgum Palustrine Forest
14 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
____ Saturation (A3)	✓ Oxidized Rhizospheres on Living Roots(C3)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Saturation Visible on Aerial Imagery(C9)
____ Algal Mat or Crust (B4)	✓ Other (Explain in Remarks)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits(B5)		____ Geomorphic Position (D2)
____ Inundation Visible on Aerial imagery (B7)		____ Shallow Aquitard (D3)
____ Water-Stained Leaves (B9)		____ Microtopographic Relief (D4)
____ Aquatic Fauna (B13)		____ FAC-Neutral Test (D5)

Secondary indicators (minimum of two required)

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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

More than 80% of the mature trees have buttressed roots. A morphological adaption to growing in saturated soils.

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW28

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	50	Yes	FAC
2.	Quercus rubra	15	No	FACU
3.	Acer saccharum	10	No	FACU
4.	Liriodendron tulipifera	10	No	FACU
5.	Populus grandidentata	5	No	FACU
6.	Nyssa sylvatica	5	No	FAC
		95	= Total Cover	

50% of total cover: 47 20% of total cover: 19

Sapling Stratum (Plot size: 15')				
1.	Acer saccharum	3	No	FACU
2.	Quercus rubra	1	No	FACU
3.				
4.				
5.				
6.				
		4	= Total Cover	

50% of total cover: 2.0 20% of total cover: 0.8

Shrub Stratum (Plot size: 15')				
1.	Hamamelis virginiana	40	Yes	FACU
2.	Rubus allegheniensis	5	No	FACU
3.	Rosa multiflora	1	No	FACU
4.				
5.				
6.				
		46	= Total Cover	

50% of total cover: 23.0 20% of total cover: 9.2

Herb Stratum (Plot size: 5')				
1.	Osmunda claytoniana	20	Yes	FAC
2.	Onoclea sensibilis	3	No	FACW
3.	Cinna arundinacea	2	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		25	= Total Cover	

50% of total cover: 12.5 20% of total cover: 5.0

Woody Vine Stratum (Plot size: 30')				
1.	Vitis aestivalis	5	Yes	FACU
2.	Smilax rotundifolia	5	Yes	FAC
3.				
4.				
5.				
		10	= Total Cover	

50% of total cover: 5.0 20% of total cover: 2.0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	5	X 2 =	10
FAC species	80	X 3 =	240
FACU species	95	X 4 =	380
UPL species	0	X 5 =	0
Column Totals:	180 (A)		630 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- ____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

More than 80% of the mature trees have buttressed roots. A morphological adaptation to growing in saturated soils. I could have changed sugar maple and red oak indicators to FAC to create a Prevalence Index <3.0. But I did not, since the dominance was greater than 50% anyway.

SOIL

Sampling Point: JJW28

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					ML	
2-4	10YR 4/1	97	7.5YR 4/6	3	C	PL	ML	
4-13	10YR 6/1	85	7.5YR 5/8	15	C	M	ML	

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing west toward Sampling Point 28

View facing south toward Sampling Point 28

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW29

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Swale | Local relief(concave,convex,none): Concave | Slope(%): 5

Subregion(LRR or MLRA): LRR N | Lat: 40.669713 | Long: -78.658619 | Datum: WGS84

Soil Map Unit Name: GWF, Gilpin-Weikert | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Upland forest within a natural swale between Wetlands 15 & 16

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicator (minimum of one 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 Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW29

Tree Stratum (Plot size: 30')		Absolute % Cover	Dominant Species?	Indicator Status
1.	Acer rubrum	40	Yes	FAC
2.	Acer saccharum	40	Yes	FACU
3.	Prunus serotina	10	No	FACU
4.				
5.				
6.				
		90	= Total Cover	

50% of total cover: 45 20% of total cover: 18

Sapling Stratum (Plot size: 15')				
1.	Quercus rubra	2	No	FACU
2.				
3.				
4.				
5.				
6.				
		2	= Total Cover	

50% of total cover: 1.0 20% of total cover: 0.4

Shrub Stratum (Plot size: 15')				
1.	Hamamelis virginiana	50	Yes	FACU
2.				
3.				
4.				
5.				
6.				
		50	= Total Cover	

50% of total cover: 25.0 20% of total cover: 10.0

Herb Stratum (Plot size: 5')				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
		0	= Total Cover	

50% of total cover: 0.0 20% of total cover: 0.0

Woody Vine Stratum (Plot size: 30')				
1.	Smilax rotundifolia	1	No	FAC
2.				
3.				
4.				
5.				
		1	= Total Cover	

50% of total cover: 0.5 20% of total cover: 0.2

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	0	X 2 =	0
FAC species	41	X 3 =	123
FACU species	102	X 4 =	408
UPL species	0	X 5 =	0
Column Totals:	143 (A)		531 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: JJW29

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
0-1	10YR 2/2	100					ML	
1-4	10YR 4/3	100					ML	extremely stony, refusal

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: none

Depth (inches): ____

Hydric Soil Present? Yes ____ No ✓

Remarks:

This rock is fractured stones, not an aquatard.

View facing northwest toward Sampling Point 29

View facing southwest toward Sampling Point 29

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Rogue's Wind Energy Project | City/County: Cambria County | Sampling Date: 10/23/2020

Applicant/Owner: CPV Rogue's Wind, LLC | State: PA | Sampling Point: JJW30

Investigator(s): Joe Wilson | Section,Township,Range: N/A

Landform(hillslope,terrace,etc.): Drainageway | Local relief(concave,convex,none): Concave | Slope(%): 5

Subregion(LRR or MLRA): LRR N | Lat: 40.669331 | Long: -78.658817 | Datum: WGS84

Soil Map Unit Name: GWF, Gilpin-Weikert | NWI classification: UPLAND

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

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

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

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

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

Remarks:

Wetland 16, PFO, Red Maple Palustrine Forest at spring/seep
7 flags

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ True Aquatic Plants (B14)	____ Surface Soil Cracks (B6)
✓ High Water Table (A2)	____ Hydrogen Sulfide Odor (C1)	____ Sparsely Vegetated Concave Surface (B8)
✓ Saturation (A3)	____ Oxidized Rhizospheres on Living Roots(C3)	✓ Drainage Patterns (B10)
____ Water Marks (B1)	____ Presence of Reduced Iron (C4)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Thin Muck Surface (C7)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Other (Explain in Remarks)	____ Saturation Visible on Aerial Imagery(C9)
____ Iron Deposits(B5)		____ Stunted or Stressed Plants (D1)
____ Inundation Visible on Aerial imagery (B7)		____ Geomorphic Position (D2)
____ Water-Stained Leaves (B9)		✓ Shallow Aquitard (D3)
____ Aquatic Fauna (B13)		____ Microtopographic Relief (D4)
		____ FAC-Neutral Test (D5)

Secondary indicators (minimum of two required)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (Inches): ____	
Water Table Present?	Yes ✓	No ____	Depth (Inches) 4	Wetland Hydrology Present? Yes ✓ No ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (Inches) 0	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), If available:

Remarks:

This is a spring/seep with flowing water below the surface

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: JJW30

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	65	Yes	FAC
2. Acer saccharum	15	No	FACU
3.			
4.			
5.			
6.			
	80 = Total Cover		

50% of total cover: 40 20% of total cover: 16

Sapling Stratum (Plot size: 15')			
1. Fagus grandifolia	10	No	FACU
2. Sassafras albidum	1	No	FACU
3.			
4.			
5.			
6.			
	11 = Total Cover		

50% of total cover: 5.5 20% of total cover: 2.2

Shrub Stratum (Plot size: 15')			
1. Ilex verticillata	20	Yes	FACW
2. Acer pensylvanicum	5	No	FACU
3. Hamamelis virginiana	3	No	FACU
4.			
5.			
6.			
	28 = Total Cover		

50% of total cover: 14.0 20% of total cover: 5.6

Herb Stratum (Plot size: 5')			
1. Dryopteris intermedia	20	Yes	FACU
2. Onoclea sensibilis	5	No	FACW
3. Viola sororia	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	30 = Total Cover		

50% of total cover: 15.0 20% of total cover: 6.0

Woody Vine Stratum (Plot size: 30')			
1. Smilax rotundifolia	1	No	FAC
2.			
3.			
4.			
5.			
	1 = Total Cover		

50% of total cover: 0.5 20% of total cover: 0.2

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: 66.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	X 1 =	0
FACW species	25	X 2 =	50
FAC species	71	X 3 =	213
FACU species	54	X 4 =	216
UPL species	0	X 5 =	0
Column Totals:	150 (A)		479 (B)

Prevalence Index = B/A = 3.19

Hydrophytic Vegetation Indicators:

____ 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 Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft(1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ____

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

A mature American beech is at the edge of the wetland and overhangs much of the wetland. It was not listed since the roots are in upland. The violet may not be common blue violet but it is assumed to be at least a FAC species.

SOIL

Sampling Point: JJW30

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
0-3	10YR 4/2	100					SL	
3-6	N 6/0	80	5YR 5/8	20	C	M	SCL	extremely stony, refusal

[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 (B5)
- ____ Stripped Matrix (S6)
- ____ Dark Surface (S7)
- ____ Polyvalue Below Surface (S8)(MLRA147,148)
- ____ 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 136,147)
- ____ 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 present):

Type: sandy clay loam

Depth (inches): 3

Hydric Soil Present? Yes ✓ No ____

Remarks:

View facing northeast toward Sampling Point 30

View facing northwest toward Sampling Point 30

Attachment 6. Site Photographs.

Photo #1: Representative photo of Palustrine Forested wetlands (PFO) within the project area.

Photo #2: Representative photo of upland forested areas within the project area.

Photo #3: Representative photo of Palustrine Emergent wetlands (PEM) within the project area.

Photo #4: Representative photo of upland non-forested areas within the project area.

Photo #5: Representative photo of Palustrine Scrub-Shrub wetlands (PSS) within the project area.

Photo #6: Representative photo of Palustrine Unconsolidated Bottom wetlands (PUB) within the project area.

Photo #7: Representative photo of perennial (R3) streams within the project area.

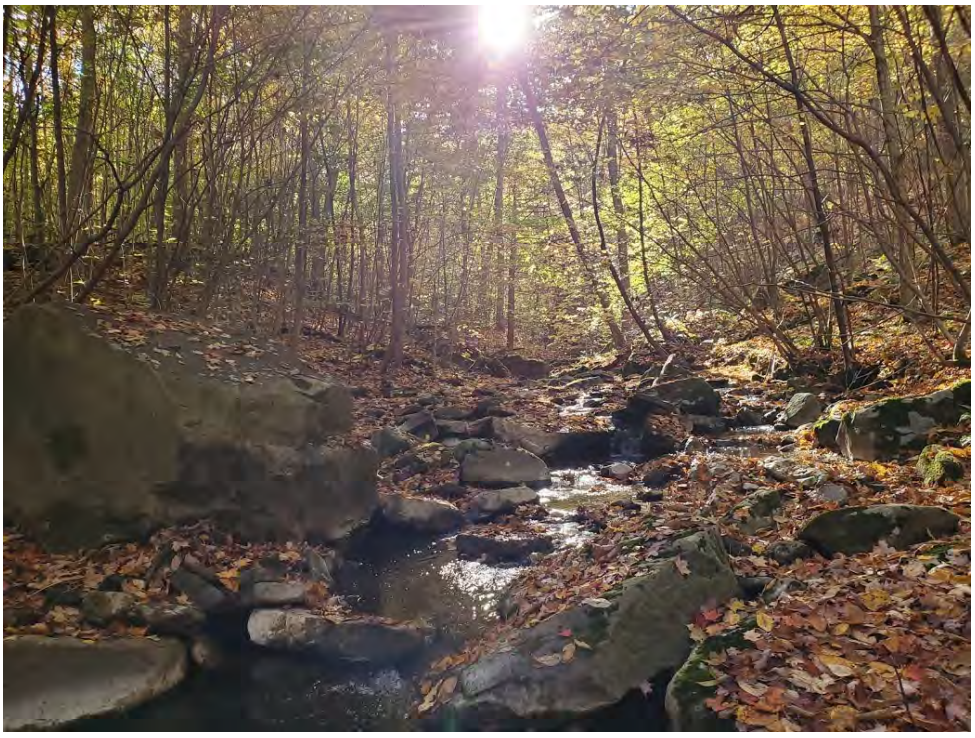


Photo #8: Representative photo of intermittent (R4) streams within the project area.

Attachment 7. Delineated Wetland and Other Waters Boundary Map.

	Wetland ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
1	CK_A	PFO	2.80	122,056	40.72327	-78.68686	1
2	CK_AA	PEM	0.23	10,160	40.71534	-78.66269	4
3	CK_AAAA	PFO	0.74	32,290	40.73035	-78.66877	2
4	CK_AAAAA	PEM	0.02	948	40.71709	-78.67320	4
5	CK_BB	PEM	0.09	3,904	40.71628	-78.66786	4
6	CK_BBB	PEM	0.05	2,061	40.71931	-78.66549	4
7	CK_BBBB	PEM	0.00	26	40.73122	-78.67085	2
8	CK_BBBBB	PEM	0.03	1,226	40.71629	-78.67300	2
9	CK_C	PFO	1.28	55,589	40.71890	-78.68005	3
10	CK_C_2	PFO	0.34	14,836	40.71726	-78.68171	3
11	CK_CC	PEM	0.44	19,249	40.71659	-78.66824	4
12	CK_CCC_2	PEM	0.74	32,359	40.72987	-78.66594	2
13	CK_CCCC	PEM	0.06	2,580	40.72269	-78.65878	4
14	CK_CCCCC	PFO	0.01	500	40.70524	-78.66019	5
15	CK_D	PEM	0.19	8,476	40.70502	-78.67190	5
16	CK_D_2	PEM	0.15	6,543	40.70547	-78.67160	5
17	CK_D_5	PSS	0.55	23,995	40.70677	-78.66601	5
18	CK_D_5-2	PSS	0.50	21,832	40.70685	-78.66498	5
19	CK_DD	PEM	0.54	23,589	40.71872	-78.66751	4
20	CK_DDD	PEM	0.03	1,468	40.72923	-78.66220	2
21	CK_DDDD	PEM	0.69	30,157	40.71210	-78.66423	4, 5
22	CK_DDDDD-1	PEM	0.10	4,507	40.70484	-78.65975	5
23	CK_DDDDD-2	PEM	0.02	910	40.70467	-78.65953	5
24	CK_E	PEM	0.05	2,117	40.70605	-78.67182	5
25	CK_EE	PEM	0.13	5,483	40.71382	-78.67032	4
26	CK_EEE	PEM	0.04	1,925	40.73006	-78.66452	2
27	CK_EEEE	PEM	0.04	1,740	40.71025	-78.66467	5
28	CK_EEEEE_1-2	PEM	0.33	14,517	40.70364	-78.65897	5
29	CK_EEEEE_1-3	PSS	0.14	6,048	40.70409	-78.65910	5
30	CK_EEEEE_2	PEM	0.12	5,152	40.70426	-78.65850	5
31	CK_F_2	PFO	0.11	4,890	40.70666	-78.67108	5
32	CK_FF	PEM	0.11	4,729	40.71447	-78.67064	4
33	CK_FFF	PEM	0.11	5,006	40.72826	-78.66077	2
34	CK_FFFF-1	PFO	0.02	1,015	40.71163	-78.66447	4, 5
35	CK_FFFF-2	PFO	0.05	2,154	40.71252	-78.66255	4
36	CK_FFFF-3	PFO	0.06	2,705	40.71260	-78.66224	4
37	CK_FFFFF	PEM	0.01	630	40.70442	-78.65875	5
38	CK_G_2	PFO	0.36	15,478	40.71054	-78.66642	5
39	CK_G_2-2	PFO	0.07	2,978	40.70914	-78.66762	5
40	CK_G_2-3	PEM	0.39	16,785	40.70818	-78.66784	5
41	CK_G_2-4	PEM	0.11	4,733	40.70823	-78.66758	5
42	CK_G_2-5	PFO	0.23	10,060	40.70860	-78.66875	5
43	CK_G_2-6	PEM	0.30	13,224	40.70733	-78.66595	5
44	CK_G_3	PFO	0.09	3,721	40.71171	-78.66665	5
45	CK_G_4	PEM	0.05	2,107	40.71244	-78.66653	4
46	CK_GG	PEM	0.23	10,105	40.71477	-78.66767	4
47	CK_GGG	PEM	0.42	18,397	40.72743	-78.66131	2
48	CK_GGGG-1	PFO	0.07	2,883	40.72178	-78.67933	1
49	CK_GGGG_2_2	PEM	0.10	4,310	40.72231	-78.67917	1
50	CK_GGGGG	PEM	0.07	3,225	40.72677	-78.69251	2
51	CK_HH	PEM	0.13	5,657	40.71615	-78.66895	4
52	CK_HHH	PEM	0.16	7,041	40.72755	-78.66095	2
53	CK_HHHHH-1	PFO	0.08	3,550	40.72795	-78.69274	1
54	CK_HHHHH-2	PFO	1.61	70,078	40.72747	-78.69263	1
55	CK_I	PEM	1.73	75,181	40.70778	-78.66961	5
56	CK_II	PEM	0.52	22,482	40.71552	-78.66997	4
57	CK_III	PEM	1.04	45,156	40.72701	-78.65694	2
58	CK_IIIII	PEM	0.01	543	40.72469	-78.67734	2
59	CK_IIIIII	PEM	0.06	2,789	40.70882	-78.66336	5,6
60	CK_J	PEM	0.07	3,248	40.70710	-78.67224	5
61	CK_J-2	PEM	0.11	4,894	40.70900	-78.66876	5
62	CK_JJ	PEM	0.09	4,089	40.72068	-78.66861	4
63	CK_JJJ	PEM	0.41	17,849	40.72614	-78.65939	2
64	CK_JJJJ	PFO	0.26	11,468	40.72526	-78.67743	1
65	CK_JJJJJ	PFO	0.25	10,978	40.70275	-78.65875	5,6
66	CK_K	PEM	0.08	3,600	40.70731	-78.67070	5
67	CK_KK	PEM	0.04	1,626	40.72022	-78.66845	4
68	CK_KKK	PFO	0.56	24,417	40.71353	-78.67779	3
69	CK_KKKK	PEM	0.06	2,701	40.73008	-78.68497	1
70	CK_KKKKK	PFO	0.25	10,897	40.70187	-78.65915	5
71	CK_L	PEM	0.05	2,015	40.71054	-78.67396	5
72	CK_LL	PEM	0.03	1,379	40.72029	-78.66776	4
73	CK_LLL	PEM	0.02	888	40.72547	-78.65926	2
74	CK_LLLL	PEM	0.05	2,171	40.71997	-78.68130	3
75	CK_LLLLL	PEM	0.03	1,384	40.72034	-78.65602	4
76	CK_M	PEM	0.04	1,779	40.72557	-78.68772	1
77	CK_MM	PEM	0.10	4,165	40.71538	-78.68004	3
78	CK_MMM	PEM	0.66	28,678	40.72149	-78.66674	4
79	CK_MMMM	PEM	0.07	3,163	40.71872	-78.68297	3
80	CK_MMMMM	PEM	0.13	5,743	40.72200	-78.65739	4
81	CK_N	PFO	0.03	1,324	40.71300	-78.66513	4
82	CK_NN	PEM	0.06	2,607	40.72096	-78.66889	4
83	CK_NNN	PEM	0.18	7,646	40.70492	-78.67026	5
84	CK_NNNN	PEM	0.01	551	40.71540	-78.67173	4
85	CK_NNNNN	PEM	0.92	40,157	40.71474	-78.65901	4
86	CK_O	PFO	0.01	221	40.71225	-78.66470	4
87	CK_OO	PEM	0.20	8,549	40.72061	-78.66993	4
88	CK_OOO	PEM	0.09	3,730	40.72429	-78.65548	2
89	CK_OOOO	PEM	0.04	1,645	40.71584	-78.67177	4
90	CK_OOOOO	PEM	0.06	2,660	40.68871	-78.66193	8
91	CK_P_2	PFO	0.16	6,940	40.71987	-78.68044	3
92	CK_PP	PEM	0.06	2,570	40.72170	-78.67137	4
93	CK_PPP	PEM	0.04	1,910	40.72239	-78.65400	4
94	CK_PPPP	PEM	0.03	1,524	40.71616	-78.67148	4
95	CK_Q	PEM	0.25	10,759	40.71788	-78.68248	3
96	CK_Q-2	PEM	0.44	19,352	40.71657	-78.66322	4
97	CK_QQ	PEM	0.02	660	40.72192	-78.67475	1
98	CK_QQQ	PEM	0.01	581	40.72017	-78.66131	4
99	CK_QQQQ	PEM	0.02	938	40.71657	-78.67081	4
100	CK_R	PEM	0.04	1,556	40.70349	-78.67060	5,6
101	CK_RR	PEM	0.46	19,970	40.72323	-78.67548	1,4
102	CK_RRR	PEM	0.02	904	40.71996	-78.66272	4
103	CK_RRRR	PEM	0.05	2,375	40.71687	-78.67050	4
104	CK_S	PFO	2.11	91,733	40.71392	-78.66245	4
105	CK_SS	PEM	0.14	6,246	40.72309	-78.66917	4
106	CK_SSS	PEM	0.00	87	40.71972	-78.66357	4
107	CK_SSSS	PEM	0.23	10,086	40.71752	-78.66864	4
108	CK_TT	PEM	0.05	2,232	40.72374	-78.66848	2
109	CK_TTT	PFO	0.02	750	40.71955	-78.66353	4
110	CK_TTTT	PEM	0.01	554	40.71787	-78.66876	4
111	CK_U	PEM	0.13	5,511	40.71647	-78.66394	4
112	CK_UU	PEM	0.19	8,270	40.72424	-78.66809	2
113	CK_UUU	PFO	0.01	549	40.71908	-78.66378	4
114	CK_UUUU	PEM	0.05	2,344	40.71833	-78.66911	4
115	CK_V	PEM	0.10	4,339	40.72504	-78.67099	2
116	CK_VVV	PEM	0.03	1,214	40.72062	-78.65913	4
117	CK_VVVV	PEM	0.02	765	40.71759	-78.67026	4
118	CK_WW	PEM	0.02	984	40.72313	-78.67255	2
119	CK_WWW	PEM	0.02	678	40.72003	-78.65904	4
120	CK_WWWW	PEM	0.03	1,192	40.71729	-78.67062	4
121	CK_X	PFO	0.10	4,259	40.71342	-78.66316	4
122	CK_XX	PEM	0.11	4,954	40.72201	-78.66715	4
123	CK_XXX	PEM	0.37	16,273	40.71729	-78.66091	4
124	CK_XXXX	PEM	0.03	1,271	40.71748	-78.67196	4
125	CK_Y	PFO	0.70	30,286	40.71309	-78.66427	4
126	CK_YY	PFO	0.11	4,755	40.70672	-78.66410	5
127	CK_YYY	PEM	0.15	6,390	40.71983	-78.66456	4
128	CK_YYYY	PEM	0.08	3,573	40.71791	-78.67150	4
129	CK_Z	PFO	0.42	18,330	40.71480	-78.66196	4
130	CK_ZZ	PEM	0.10	4,317	40.72007	-78.66482	4
131	CK_ZZZ	PFO	0.13	5,669	40.70701	-78.66476	5
132	CK_ZZZZ	PEM	0.05	1,972	40.71827	-78.67151	4
133	DB_13	PEM	0.10	4,271	40.68597	-78.64993	8
134	DB_14	PEM	0.14	6,179	40.68504	-78.64649	8
135	DB_15	PFO	0.00	6,144	40.68621	-78.64720	8
136	DB_16	PFO	0.01	589	40.68288	-78.64765	9
137	DB_18	PEM	0.21	9,111	40.68398	-78.64800	8
138	DB_19	PEM	0.06	2,818	40.69299	-78.64606	8
139	DB_20	PEM	0.12	5,294	40.69355	-78.64611	7,8
140	DB_22	PEM/PFO	0.01	622	40.69436	-78.64711	7,8
141	DB_23	PFO	0.90	39,245	40.69421	-78.64771	7,8
142	DB_25	PEM/PFO	0.09	4,057	40.68965	-78.64861	8
143	DB_26	PEM	0.09	3,716	40.68710	-78.64623	8
144	DB_27	PEM	0.06	2,482	40.68642	-78.64581	8
145	DB_28	PEM	0.03	1,269	40.69121	-78.64714	8
146	DB_29	PEM	0.06	2,591	40.69642	-78.64067	7
147	DB_3	PEM	0.05	2,344	40.68523	-78.64717	8
148	DB_30	PEM	0.02	737	40.69723	-78.64056	7
149	DB_31	PEM	0.45	19,636	40.69948	-78.64474	5
150	DB_34	PEM	0.12	5,025	40.69941	-78.64601	5
151	DB_35	PEM/PFO	0.62	27,219	40.69911	-78.64710	5
152	DB_38	PFO	0.03	1,448	40.69828	-78.64859	5
153	DB_4	PSS	0.10	4,342	40.68535	-78.64701	8
154	DB_42	PEM/PFO	1.66	72,384	40.70283	-78.65296	5,6
155	DB_46	PFO	0.45	19,682	40.69399	-78.64620	7,8
156	DB_47	PEM	0.26	11,415	40.69500	-78.64604	7,8
157	DB_5	PEM/PSS	0.01	548	40.68543	-78.64729	8
158	DB_50	PEM	0.00	184	40.68546	-78.65237	8
159	DB_7	PEM	0.33	14,428	40.68550	-78.64826	8
160	DB_9	PEM	0.05	2,380	40.68601	-78.64911	8
161	EM_1	PFO	0.21	8,960	40.65816	-78.65510	11
162	EM_2	PFO	0.18	7,924	40.65807	-78.65546	11
163	EM_3	PFO	0.11	4,604	40.65918	-78.65313	11
164	EM_4	PFO	0.93	40,565	40.66185	-78.65060	10
165	EM_4_2	PFO	0.93	40,302	40.66079	-78.65221	10
166	EM_5	PFO	3.82	166,431	40.66610	-78.65191	10
167	EM_5-2	PFO	0.15	6,412	40.66521	-78.65183	10
168	EM_6	PEM/PUB	0.16	6,930	40.66472	-78.65247	10
169	EM_7	PEM	0.02	1,079	40.66397	-78.65142	10
170	EM_9	PEM	1.16	50,731	40.67137	-78.64986	10
171	EM_9_2	PEM/PFO	0.69	30,019	40.67029	-78.65086	10
172	EM_9_3	PEM/PFO	0.42	18,153	40.67100	-78.64958	10
173	JK_V	PEM	0.01	640	40.71767	-78.66349	4
174	JK_W	PEM	0.03	1,219	40.71505	-78.66080	4
175	JW_1	PEM	0.05	2,354	40.67963	-78.65793	9
176	JW_10	PEM	0.77	33,734	40.68054	-78.65956	9
177	JW_10_2	PFO	0.18	7,630	40.68015	-78.66000	9
178	JW_12	PEM	0.18	7,884	40.67989	-78.66098	9
179	JW_13	PEM	0.00	185	40.67634	-78.66038	9
180	JW_16_2	PEM	0.15	6,558	40.67537	-78.65136	9
181	JW_17	PFO	0.05	2,031	40.67858	-78.65686	9
182	JW_19	PEM	0.02	973	40.68253	-78.65884	9
183	JW_21	PFO	0.17	7,360	40.67644	-78.65032	9
184	JW_21_2	PEM	0.04	1,850	40.67633	-78.65123	9
185	JW_26	PEM	0.05	2,096	40.66869	-78.65701	10
186	JW_28	PFO	0.26	11,377	40.67006	-78.65801	10
187	JW_3	PEM	0.06	2,404	40.68010	-78.65764	9
188	JW_3_2	PFO	0.02	746	40.68017	-78.65768	9
189	JW_30	PFO	0.02	944	40.66935	-78.65884	10
190	JW_5	PEM	0.02	1,076	40.68011	-78.65798	9
191	JW_5_2	PFO	0.02	782	40.68007	-78.65806	9
192	JW_6	PEM	0.17	7,395	40.67932	-78.65705	9
193	JW_8	PFO/PEM	0.10	4,317	40.68048	-78.65862	9
194	DB_52	PEM	0.02	851	40.72840	-78.66890	2
195	DB_55	PEM	0.16	6,778	40.72836	-78.66626	2
196	DB_57	PFO	0.04	1,938	40.72880	-78.66690	2
197	DB_61	PEM	0.09	3,998	40.72950	-78.66780	2
198	DB_63	PEM	0.01	451	40.72290	-78.66700	2
199	DB_70	PEM	0.69	30,148	40.68893	-78.64971	8
200	DB_73	PEM	0.05	2,362	40.68630	-78.64940	8
201	DB_74	PFO	0.05	2,218	40.68680	-78.64940	8
202	DB_76	PSS	5.24	228,010	40.72596	-78.68995	1
203	DB_81	PEM	0.02	695	40.72657	-78.69204	1
204	DB_83	PEM	0.03	1,311	40.72583	-78.69176	1
205	DB_85	PEM	0.02	755	40.72632	-78.69180	1

	Stream ID	Cowardin	Lineal Feet	Latitude	Longitude	Sheet #
1	CK_C	R4	1,682	40.71870	-78.68044	3
2	CK_C-2	R4	399	40.71816	-78.68148	3
3	CK_G_2	R3	1,773	40.70729	-78.66610	4,5
4	CK_G_3	R4	2,182	40.71117	-78.66614	5
5	CK_KKKKK	R4	243	40.70237	-78.65931	6
6	DB_1	R4	2069	40.68543	-78.64602	8
7	DB_17	R4	220	40.68319	-78.64755	8,9
8	DB_21	R4	1,344	40.69432	-78.64658	7
9	DB_33	R4	462	40.69953	-78.64613	5
10	DB_36	R4	115	40.70030	-78.64599	5
11	DB_37	R4	1,467	40.69924	-78.64751	5
12	DB_40	R4	375	40.70029	-78.64670	5
13	DB_41	R4	559	40.69540	-78.64829	7,8
14	DB_43	R4	286	40.70382	-78.65729	7
15	DB_44	R4	101	40.70412	-78.65724	7
16	DB_45	R4	107	40.70420	-78.65725	7
17	DB_48	R4	1,141	40.69841	-78.64732	7
18	DB_49	R4	597	40.66485	-78.65657	10
19	DB_51	R4	240	40.70415	-78.65784	7
20	DB_6	R4	182	40.68564	-78.64732	6
21	EM_4	R4	1,797	40.66104	-78.65243	10
22	EM_4-2	R4	230	40.66147	-78.65221	10
23	EM_5	R4	623	40.66530	-78.65202	10
24	EM_5-2	R4	240	40.66539	-78.65315	10
25	EM_9	R4	2,302	40.67116	-78.65332	10
26	DB_54	R3	689	40.72840	-78.66800	2
27	DB_56	R4	58	40.72850	-78.66650	2
28	DB_58	R4	266	40.72920	-78.66790	2
29	DB_60	R4	70	40.72940	-78.66810	2
30	DB_67	R4	58	40.65440	-78.70270	7
31	DB_68	R4	271	40.70630	-78.65360	5,7
32	DB_72	R4	209	40.68660	-78.64960	8
33	DB_75	R4	101	40.68620	-78.64930	8
34	DB_79	R3	992	40.72670	-78.69140	1
35	DB_82	R4	81	40.72590	-78.69200	1
36	DB_84	R4	80	40.72540	-78.69180	1
		Total =	23,611			

	Open Water ID	Cowardin	Area (Acres)	Area (Sq. Ft.)	Latitude	Longitude	Sheet #
1	CK_CCC	PUB	0.80	34,663	40.72987	-78.66635	2
2	CK_EEEEE_1	PUB	0.34	14,598	40.70357	-78.65936	5
3	CK_EEEEE_3	PUB	0.08	3,368	40.70393	-78.65848	5
4	CK_EEEEE_4	PUB	0.05	2,342	40.70381	-78.65824	5
5	CK_F	PUB	0.26	11,375	40.70673	-78.67067	5
6	CK_G	PUB	0.10	4,156	40.70694	-78.67001	5
7	CK_GGGG-2	PUB	0.07	2,908	40.72200	-78.67937	1
8	CK_H	PUB	0.09	3,809	40.70818	-78.66843	5
9	CK_HHHH	PUB	0.64	27,709	40.72374	-78.67675	1
10	CK_P	PUB	0.57	24,977	40.71962	-78.68099	3
11	DB_10	PUB	0.00	150	40.68619	-78.64904	8
12	DB_11	PUB	0.63	27,625	40.68614	-78.64988	8
13	DB_2	PUB	0.08	3,269	40.68526	-78.64743	8
14	DB_24	PUB	0.01	387	40.68992	-78.64862	8
15	DB_32	PUB	0.29	12,703	40.69940	-78.64540	7
16	DB_8	PUB	0.13	5,857	40.68569	-78.64882	8
17	JW_16	PUB	1.45	63,078	40.67586	-78.65179	9
18	DB_63	PUB	0.06	2,783	40.72793	-78.66701	2
19	DB_64	PUB	0.54	23,340	40.72780	-78.66790	2
20	DB_65	PUB	0.05	2,069	40.72740	-78.66710	2
21	DB_66	PUB	0.08	3,607	40.72760	-78.66710	2
		Total =	6.31	274,773			

Miles
0 0.2 0.4 0.6 0.8

N

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Reviewing Agencies:
U.S. Corps of Engineers: Department of Environmental Protection

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Silver Spring, MD 20910

Project Title:
Rogue's Wind Energy Project

Project Location:
Cambria & Clearfield Counties, Pennsylvania

Sheet Title:
Wetlands and Other Waters of the US

DATE	REV.	DRAWN/ CHKD BY

SCALE: 1:30,000
PROJECT #: 19087
PERMIT #:
DATE ISSUED: 5/7/2021

Index

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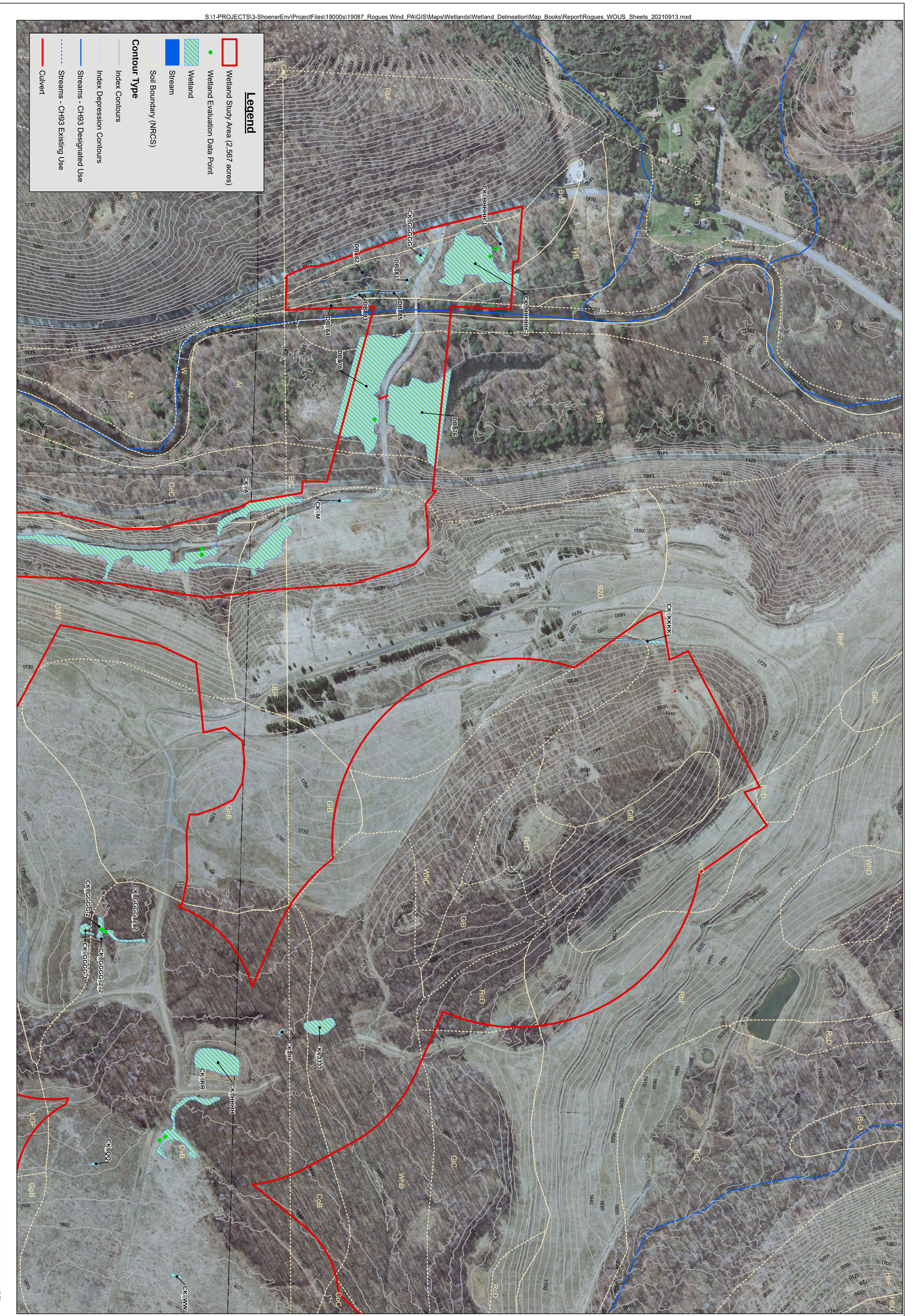

0 0.03 0.06 0.09 0.12 Miles

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SHEET 1	SCALE: 1:3,800 PROJECT #: 19087 PERMIT #: DATE ISSUED: 5/7/2021	DATE	REV.	DRAWN/ CHKD BY	Project Title: Rogue's Wind Energy Project Project Location: Cambria & Clearfield Counties, Pennsylvania Sheet Title: Wetlands and Other Waters of the US

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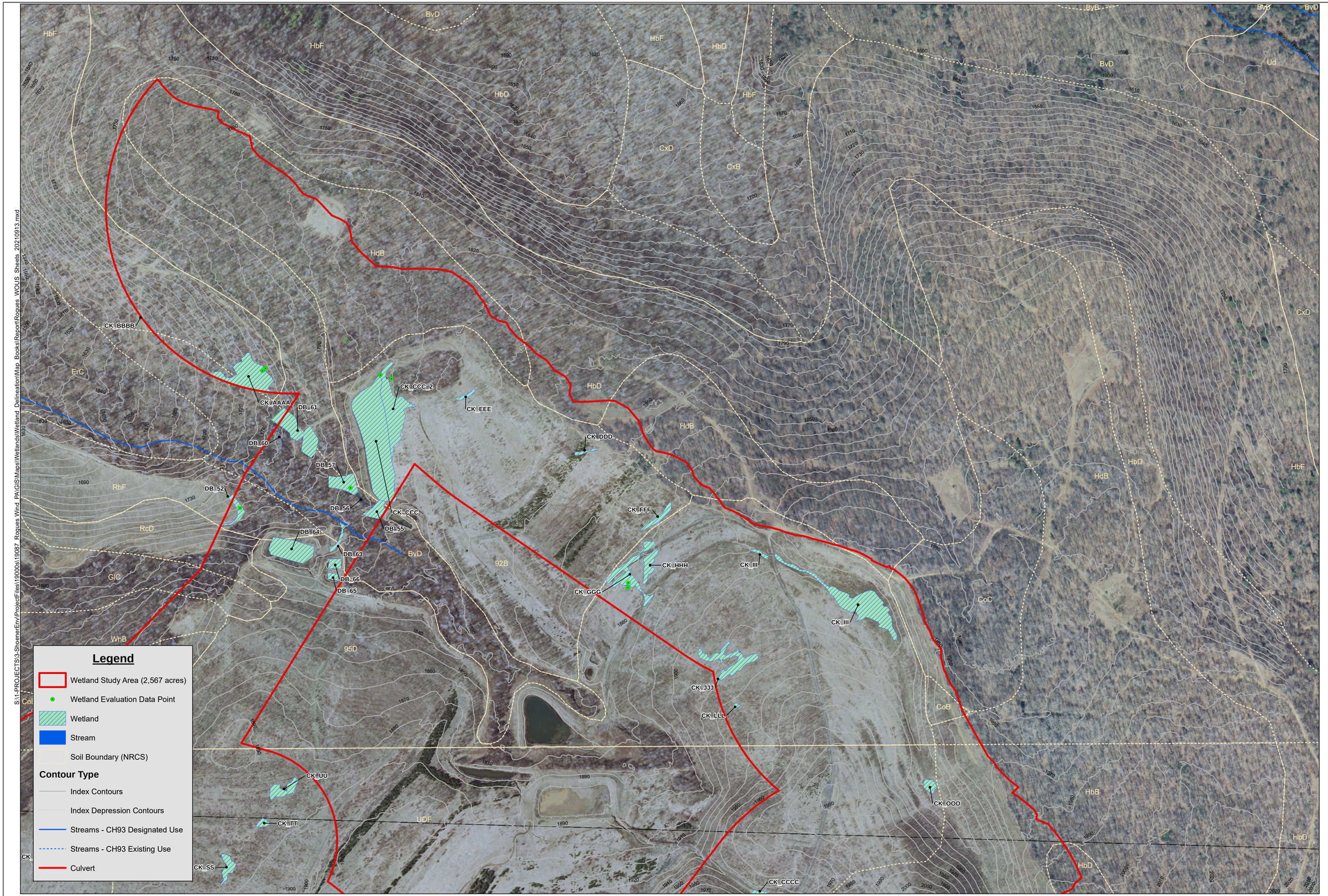

Legend

- Wetland Study Area (2,567 acres)
- Wetland Evaluation Data Point
- Wetland
- Stream
- Soil Boundary (NRCS)

Contour Type

- Index Contours
- Index Depression Contours
- Streams - CH93 Designated Use
- Streams - CH93 Existing Use
- Culvert

N

0 0.03 0.06 0.09 0.12 Miles

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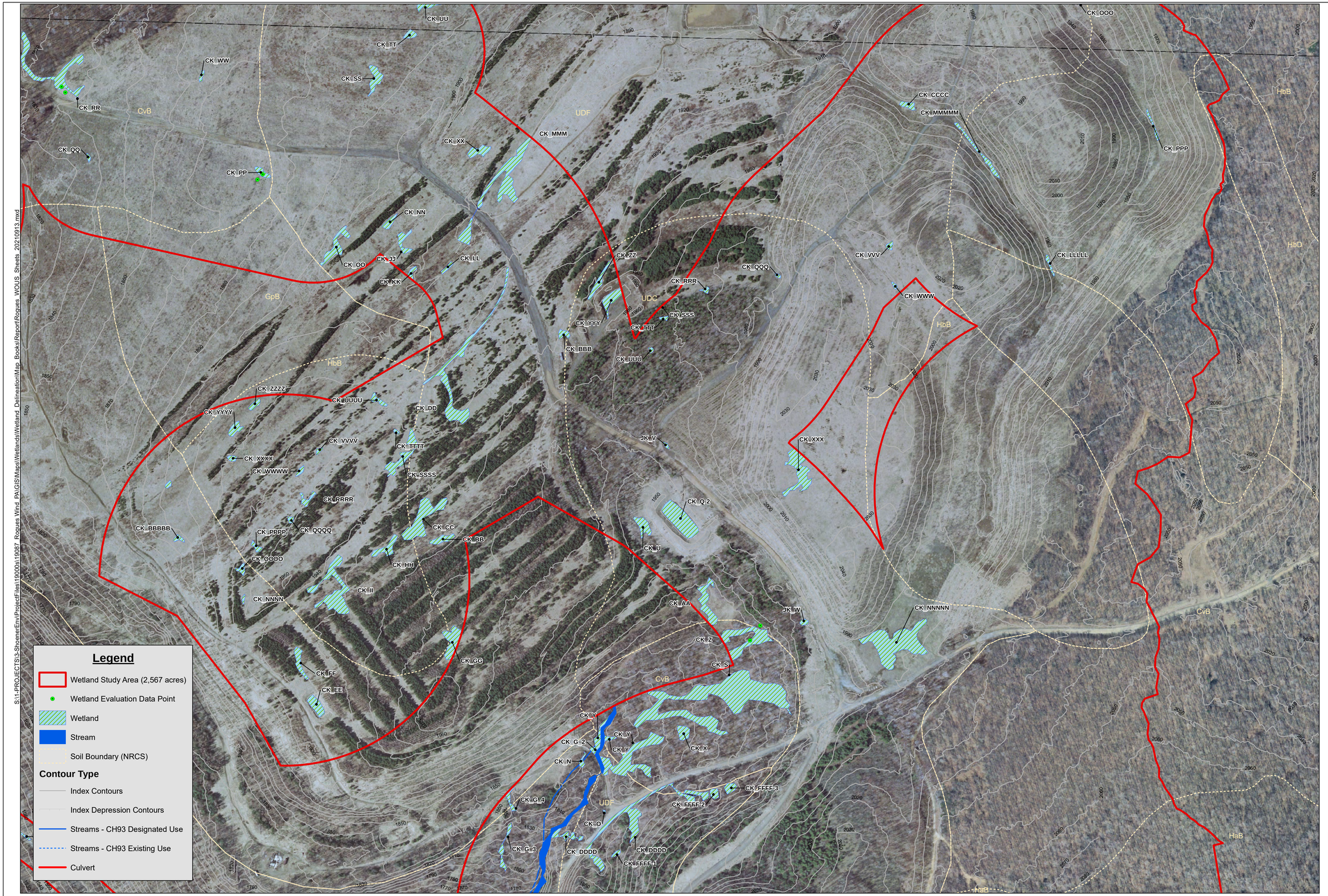

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SHEET 4

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CK_DDDD
CK_FFFF_2
CK_DDDD
CK_G_3
CK_DDDD
CK_FFFF_1
CK_G_2
CK_G_2
CK_L
CK_EEEE
CK_G_2-2
CK_J-2
CK_G_2
CK_G_2-4
CK_G_2-5
CK_G_2-3
CK_IIIII
CK_G_2-3
CK_G_2-4
CK_J
CK_H
CK_I
CK_G_2-6
CK_D_5-2
CK_K
CK_J
CK_ZZZ
CK_G
CK_G_3
CK_YY
CK_F_2
CK_F
CK_D_5
CK_E
CK_D_5-2
CK_D_2
CK_D
CK_NNN
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CK_FFFFF
CK_EEEEE_2
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CK_EEEEE_1-3
DB_45
CK_EEEEE_3
DB_51
DB_43
CK_EEEEE_1-2
CK_EEEEE_4
CK_R
CK_EEEEE_1
DB_42
CK_JJJJJ
DB_67
CK_KKKKK_1
CK_KKKKK
DB_68

CvB
UDF
GWF
UDC
HaB
NoB
HaD
LaB
HbD
LDF
GwB
GwD
GWE
CvD

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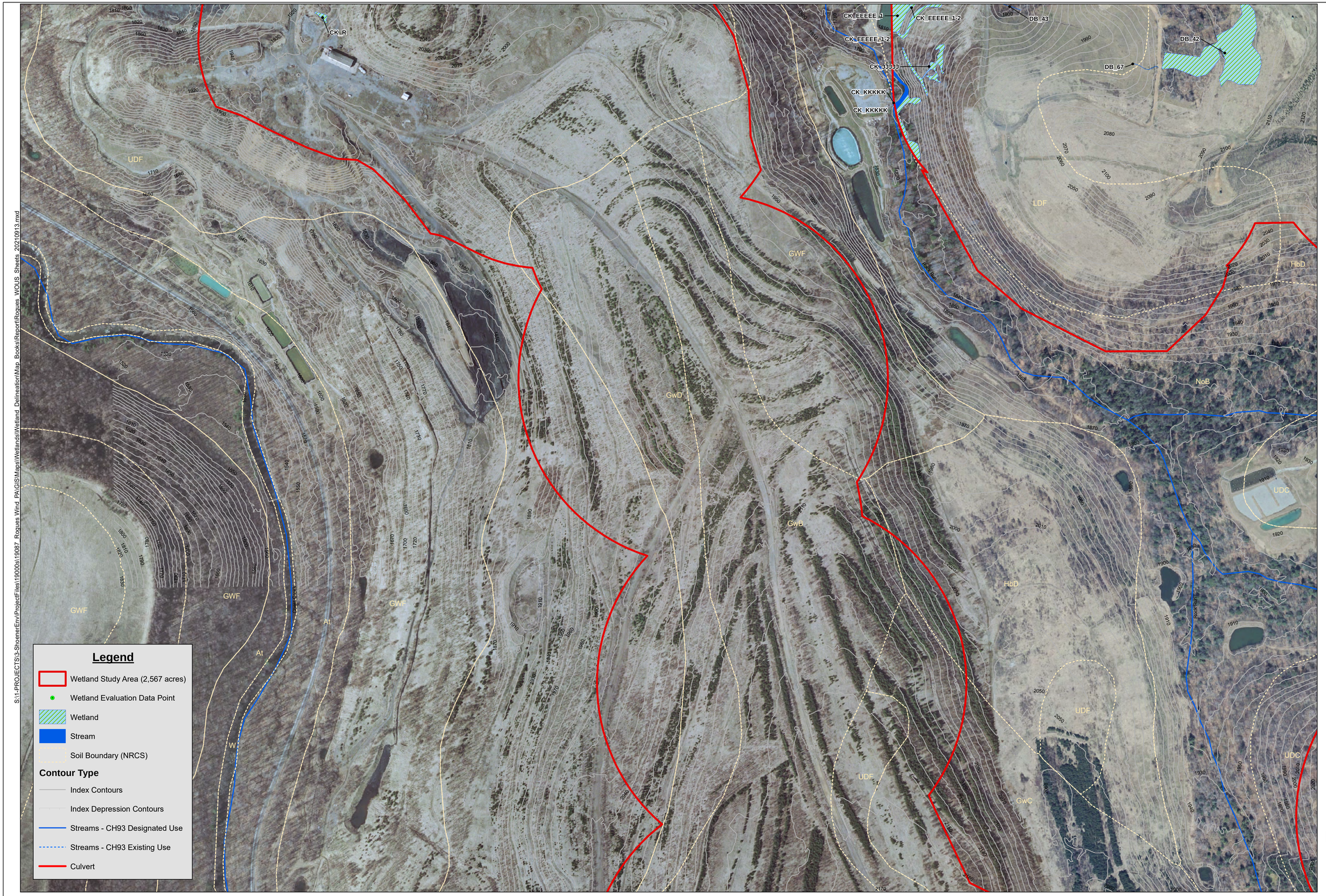

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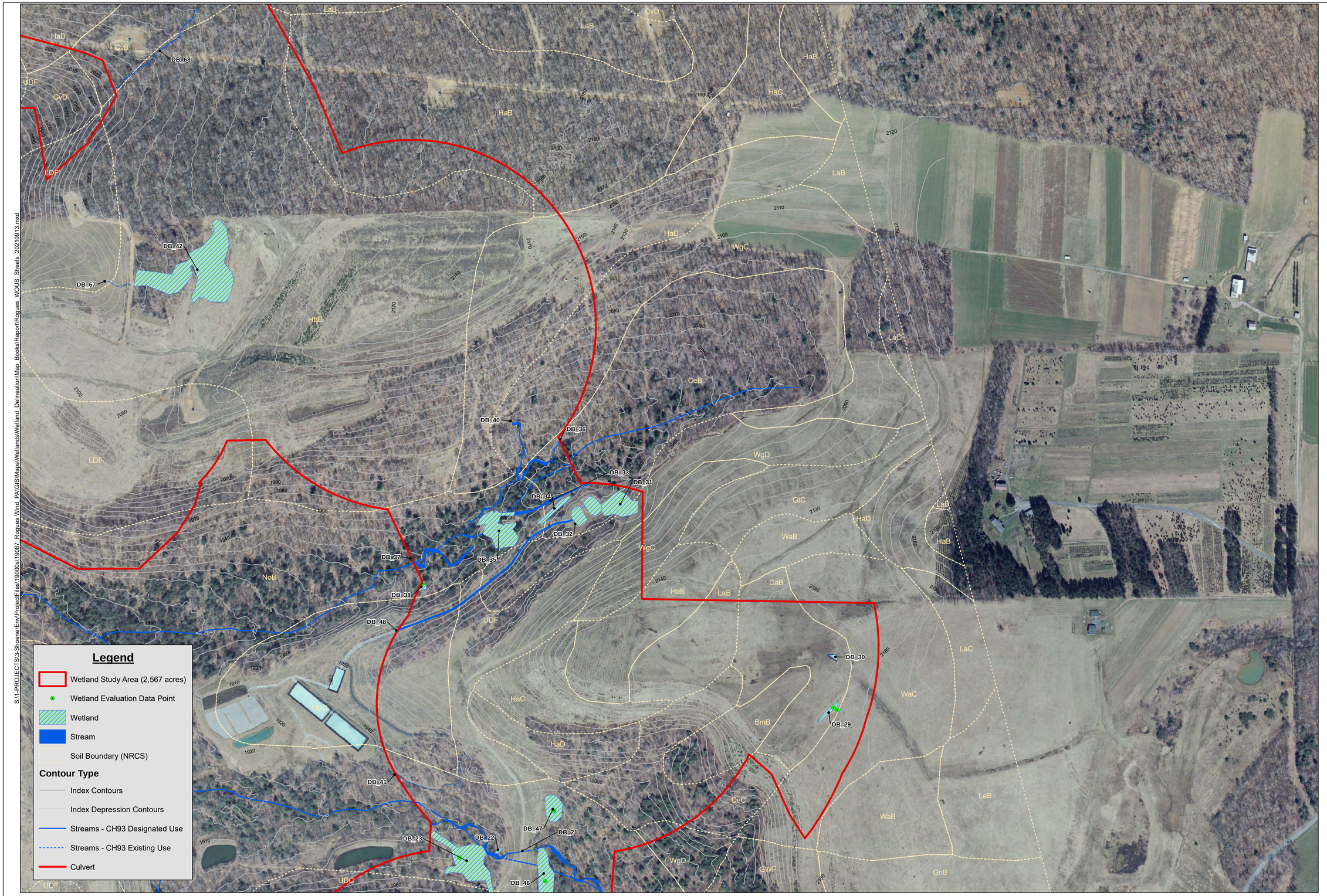

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SHEET 7

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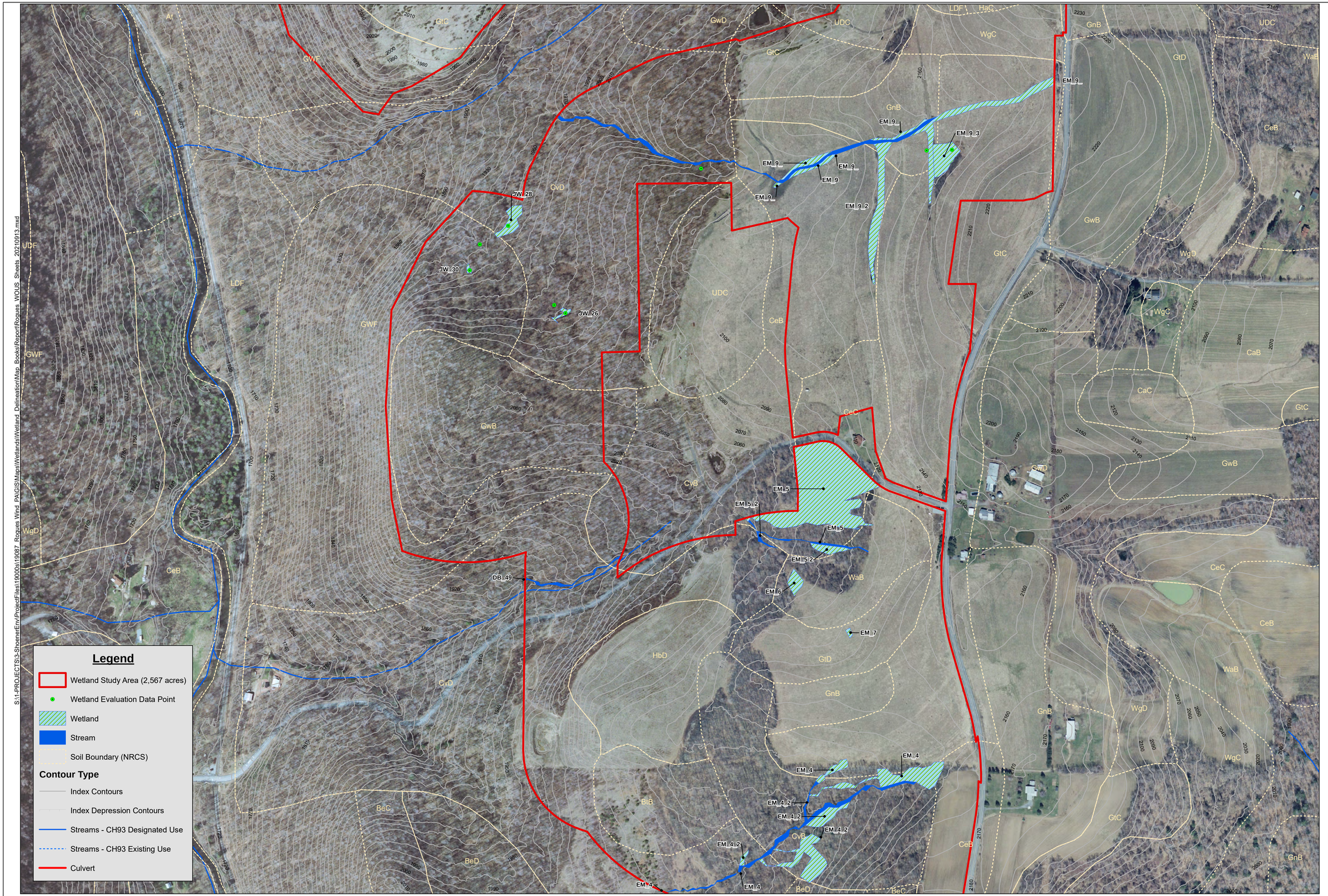

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SHEET 11

EXHIBIT 6

1. PROJECT INFORMATION

Exhibit 8

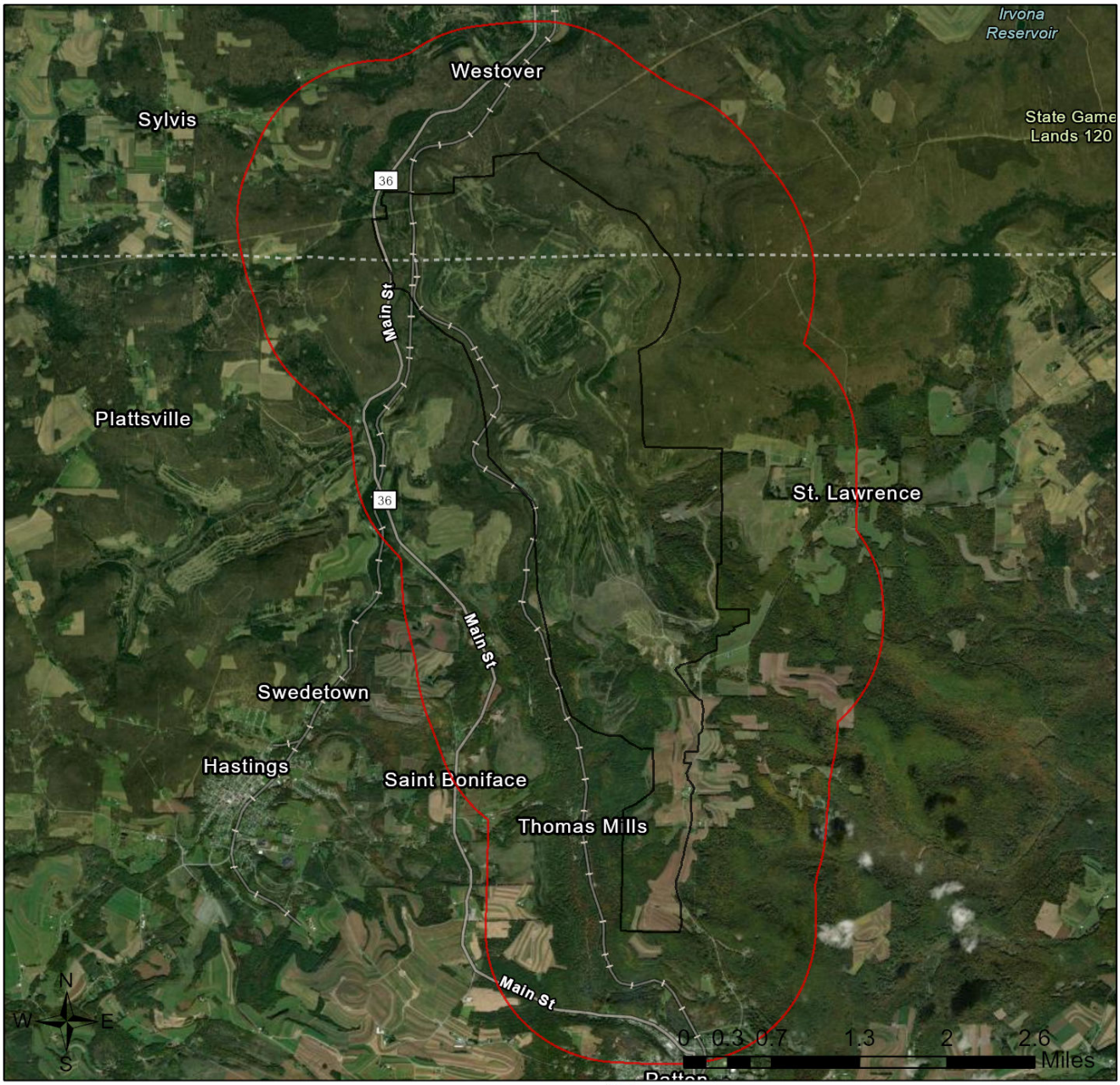
Project Name: **Rogue's Wind Energy Project**
Date of Review: **6/2/2025 05:54:27 PM**
Project Category: **Energy Storage, Production, and Transfer, Energy Production (generation), Wind power facility (wind farm, turbines) - new, expansion, modification**
Project Area: **4,331.44 acres**
County(s): **Cambria; Clearfield**
Township/Municipality(s): **Chest Township; Elder Township; Westover Borough**
ZIP Code:
Quadrangle Name(s): **HASTINGS**
Watersheds HUC 8: **Upper West Branch Susquehanna**
Watersheds HUC 12: **Glendale Dam-Beaverdam Run; Lower Chest Creek; Middle Chest Creek**
Decimal Degrees: **40.702032, -78.663683**
Degrees Minutes Seconds: **40° 42' 7.3153" N, 78° 39' 49.2601" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**
PA Department of Conservation and Natural Resources	**Conservation Measure**	**No Further Review Required, See Agency Comments**
PA Fish and Boat Commission	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**
U.S. Fish and Wildlife Service	**Potential Impact**	**FURTHER REVIEW IS 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.

Rogue's Wind Energy Project



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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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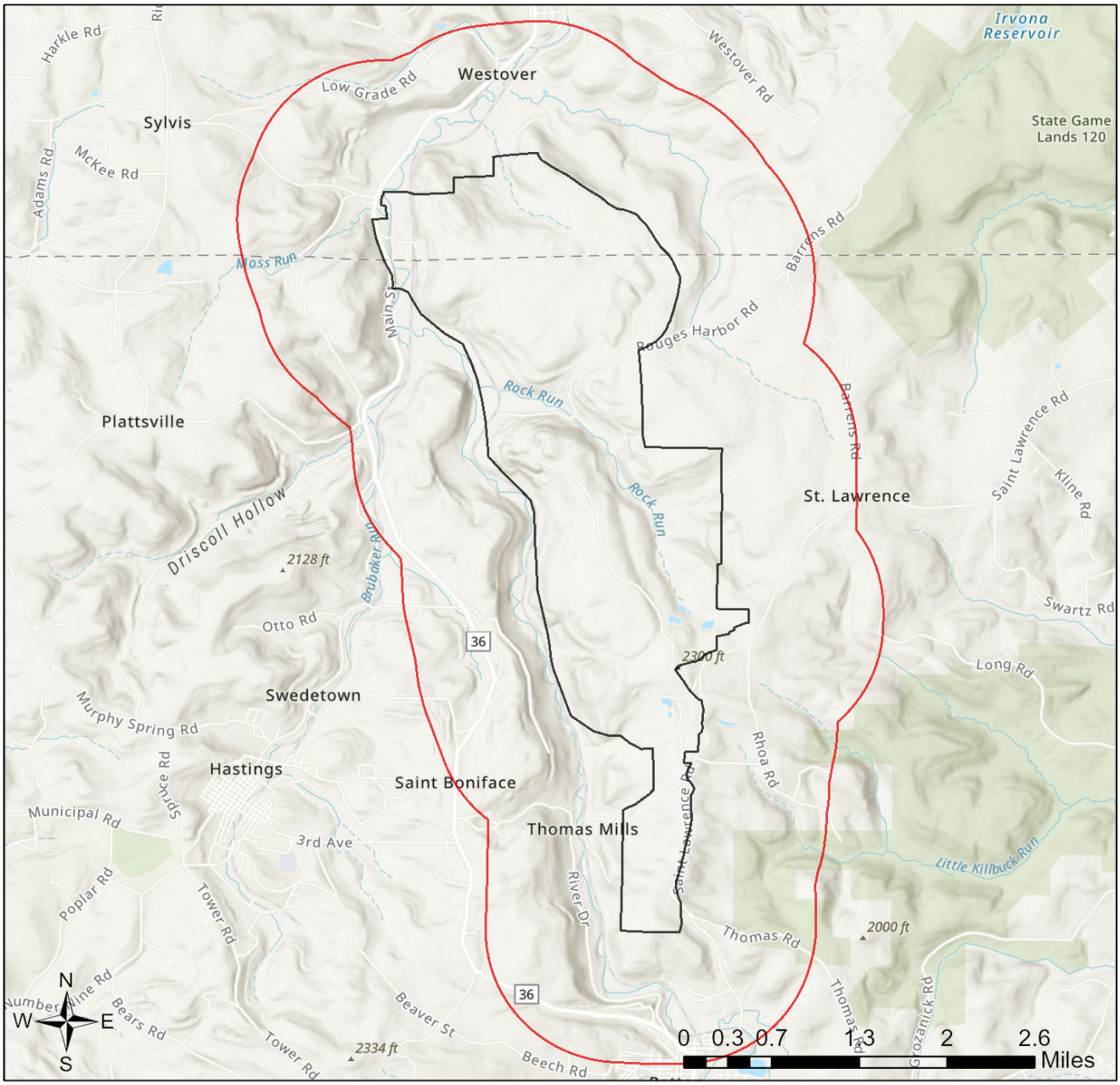

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Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA,

RESPONSE TO QUESTION(S) ASKED

Q1: Will the project require permanent alteration or removal of natural vegetation, soils, water (streams, ponds, vernal pools, etc.)?
Your answer is: Yes

Q2: Will wind turbine towers be 65 meters or more in height? (Height is measured from ground level to the tower hub or nacelle.)
Your answer is: Yes

Q3: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?
Your answer is: Yes

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PGC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Sensitive Species**		Endangered

PA Department of Conservation and Natural Resources

RESPONSE:

Conservation Measure: Minimize project footprint to limit adverse impacts to the plant community of concern. Use stringent erosion and sedimentation controls before, during, and after project implementation to ensure that sediment and contaminants do not enter any waterway(s) (rivers, creeks, streams, tributaries) or waterbodies (lakes, ponds). To the extent possible provide a natural vegetated buffer between the project activities and any aquatic or wetland plant community of concern, if present. Do not alter stream flow, lake or pond, levels, or extract groundwater near wetland plant communities. Avoid the introduction of invasive species in order to protect the integrity of nearby plant community of concern. Voluntary cleaning of equipment/vehicles, using clean fill and mulch, and avoiding planting invasive species Invasive Plants (pa.gov) will help to conserve sensitive plant habitats.

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: https://conservationexplorer.dcnr.pa.gov/content/survey-protocols)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Herbaceous Vernal Pond	Herbaceous Vernal Pond	Special Concern Resource*	Special Concern Resource*	

PA Fish and Boat Commission
RESPONSE:
Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Sensitive Species**		Special Concern Species*

U.S. Fish and Wildlife Service
RESPONSE:
Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.
** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found here. This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).
*If information was requested by USFWS, applicants must email, or mail, project information to IR1_ESPenn@fws.gov to initiate a review. USFWS will not accept uploaded project materials.

Check-list of Minimum Materials to be submitted:
____Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
____A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
In addition to the materials listed above, USFWS REQUIRES the following
____**SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.
____Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
____Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

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: Michael J. Resca
Company/Business Name: CPV Rogue's Wind, LLC
Address: 50 Braintree Hill Office Park, Suite 300
City, State, Zip: Braintree, MA 02184
Phone: (781) 848-5692 Fax: ( )
Email: mresca@cpv.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Michael J. Resca — applicant/project proponent signature
June 3, 2025 — date

PENNSYLVANIA GAME COMMISSION
BUREAU OF WILDLIFE MANAGEMENT
2001 ELMERTON AVENUE HARRISBURG, PA 17110-9797 | (717) 787-5529

July 8, 2025

Jeffrey Zirpoli
BOW Renewables, LLC
205 NW 3rd Place
Cape Coral, FL 33993
jeff.zirpoli@bowrenewables.com

Project Search ID: PNDI-693177
PNDI Receipt: *project_receipt_rogues_wind_energy_projec_693177_FINAL_7.pdf*
Re: Rogue's Wind Energy Project
Chest, Elder, and Westover Township/Municipality(s), Cambria and Clearfield Counties, PA

Dear Jeff Zirpoli,

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt *project_receipt_rogues_wind_energy_projec_693177_FINAL_7.pdf* for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

Potential Impact Anticipated

PNDI records indicate species or resources of concern are located in the vicinity of the project. The PGC has received and thoroughly reviewed the information that you provided to this office as well as PNDI data, and has determined that potential impacts to threatened, endangered, and species of special concern birds and mammals may be associated with your project. Therefore, additional measures are necessary to avoid potential impacts to the species listed below.

Scientific Name	Common Name	PA Status	Federal Status
Myotis septentrionalis	Northern Long-eared Bat	ENDANGERED	ENDANGERED
Myotis lucifugus	Little Brown Bat	ENDANGERED	N/A
Perimyotis subflavus	Tri-colored Bat	ENDANGERED	PROPOSED ENDANGERED
Myotis leibii	Eastern Small-footed Bat	THREATENED	N/A
N/A	Winter Bat Colony	SPECIAL CONERN	N/A

Next Steps

Northern Long-eared Bats: In a March 2025 letter, the USFWS determined that "activities from project construction and operations should not result in take as long as proposed avoidance and mitigation measures are taken."

Little Brown Bats and Tri-colored Bats: A summer bat acoustic survey was conducted in 2020 and documented both little brown bat and tri-colored bat calls at various locations throughout the project area. As such the

following seasonal timber restriction is to be implemented within the project area to avoid impacts to roosting bats: *All trees or dead snags greater than or equal to 3 inches in diameter at breast height that need to be harvested to facilitate the project (including any access roads or off - R.O.W. workspaces) shall be cut between November 16th and March 31st*. If these avoidance measures are followed, the PGC has determined that no impacts are anticipated for Little Brown and Tri-colored Bats.

Eastern Small-footed Bats: A summer bat acoustic survey was conducted in 2020 and documented eastern small-footed bat calls at various locations throughout the project area. A July 2021 report found that "In total, 2.7 acres (116,768 ft^2) of habitat containing suitable roosting areas was identified and mapped within the Project's ¼-mile search buffer. In cases where suitable habitat was documented inside of the Limit of Disturbance (LOD), the LOD was revised to avoid direct alteration or removal of suitable habitat. Only non-habitat surface rock was found in forested areas to be cleared during construction. As a result, the PGC has determined that no impacts are anticipated for Eastern Small-footed Bats.

Winter Bat Colony: One known bat hibernaculum with two entrances (PA 3578-03) is located within the project area. To avoid impacts to bats using this hibernaculum and to protect the integrity of the hibernaculum, the following avoidance measures are to be implemented:

- No blasting is to occur within ¼ mile of either opening to the hibernaculum or within ¼ miles of the underground workings of the mine.
- No tree removal is to occur within 300 feet of either hibernaculum opening. Tree removal shall be minimized to the greatest extent possible between 300 and 1,000 feet of each of the hibernaculum openings. Any live trees or dead snags that need to be removed to facilitate the project, that are located between 300 and 1,000 feet of either opening, shall be removed between November 16th and March 31st.

If these avoidance measures are followed, the PGC has determined that no impacts are anticipated for this winter bat colony.

This proposed wind site is high risk for bat impacts based on the criteria set forth in the PGC Wind Energy Voluntary Cooperative Agreement. As such, the following avoidance and minimization measures should be incorporated into the development of this project to reduce impacts to state listed bat species and their associated habitat located on and adjacent to the project area:

- Curtailment studies have shown that bats, in general, are not as active in high wind speeds and that a cut in speed of at least 5.0 m/s can reduce nightly bat fatality from 53-87% with a marginal annual power loss (Arnett et al. 2009). Based on the relationship between wind speed and bat mortality, and the presence of federal and state listed species on and in the vicinity of the project, bat mortality minimization measures should be implemented for the lifetime of this project, between April 1st and November 15th, starting ½ hours before sunset and end ½ hour after sunrise when temperature is greater than 50°F. The following cut-in speeds should be implemented at the below times of year when bat activity is the greatest (refer to page 6 of the *PGC Wind Energy Voluntary Cooperative Agreement* for guidance regarding when bat activity is greatest):
    - April 1st - June 30th cut-in speeds = 5.0 m/s.
    - July 1st - September 30th cut-in speeds = 5.5 m/s
    - October 1st - November 15th cut-in speeds = 5.0 m/s

- Post-construction mortality surveys following the survey protocol found in Exhibit C of the *PGC Wind Energy Voluntary Cooperative Agreement* are to be conducted to determine if the bat mortality minimization measures implemented at this site are resulting in a reduction of bat mortality. If the PGC

determines the mortality of bats and birds from the operation of the proposed project is at an unacceptable level of impact, additional monitoring, minimization efforts, and/or mitigation may be warranted. However, if the maximum effort for reduction of bat mortality is implemented for this high-risk site, as outlined on page 6 of the *PGC Wind Energy Voluntary Cooperative Agreement*, then no post-construction monitoring surveys would be requested by the PGC.

CPV Rogue's Wind, LLC signed the PGC Wind Energy Voluntary Agreement in December 2021.

This response represents the most up-to-date summary of the PNDI data files and is valid for two (2) years from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for two additional years.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,

Sue Guers
Wildlife Biologist / Environmental Review Lead
Bureau of Wildlife Management
Phone: 717-787-4250, Extension 73412
Fax: 717-787-6957
E-mail: suguers@pa.gov

A PNHP Partner

Pennsylvania Natural Heritage Program

SLG/slg

cc: Schnupp
Williams
Lovallo
Turner
Farabaugh
Ternent
Trusso
Melo

March 20, 2025
PNDI No. 693177
SIR# 57835

PA Fish and Boat Commission
Natural Diversity Section
450 Robinson Ln.
Bellefonte, PA 16823

RE: **Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species**
Rogue's Wind Energy Project
PNDI No. 693177: SIR# 57835
Chest Township, Elder Township: Cambria County - Westover Borough: Clearfield County

On behalf CPV Rogue's Wind, LLC ("Rogue's Wind"), we are requesting the PA Fish and Boat Commission ("PFBC") review this letter and attachments[1] related to timber rattlesnakes ("TR")and provide a written response that with the implementation of PFBC recommendations that no potential impacts are expected to state protected species under the jurisdiction of the PFBC. The Project started construction in Q3 2024.

The Project is implementing the PFBC recommendations that were included in PAFBC response on July 20, 2023 (Attachment 1) and which were further detailed and approved by the PFBC via email correspondence between Jeff Zirpoli at BOW Renewables, LLC and Joshua Brown at the PFBC on November 22, 2023.

We are respectfully requesting that the PAFBC provide written concurrence that no impacts to TR are expected from Project development or operations and that no further review or consultation with PFBC is required. Should you have questions or require further information, we would be happy to arrange a virtual meeting and/or please do not hesitate to contact me directly at 215.534.3590 or jeff.zirpoli@bowrenewables.com.

Sincerely,

Jeff Zirpoli

Jeff Zirpoli
BOW Renewables, LLC
Director of Environmental Services

1

Attachment 1.

pennsylvania
FISH AND BOAT COMMISSION

July 20, 2023

IN REPLY REFER TO
SIR# 57835

Bow Renewables
Jeff Zirpoli
205 NW 3rd Place
Cape Coral, Florida 33993

RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 693177_6
Rogue's Wind Energy Project
Chest Township, Elder Township: CAMBRIA County - Westover Borough: CLEARFIELD County

Dear Jeff Zirpoli:

In prior correspondence with the Commission, due to nearby known occurrences of Timber Rattlesnake within the vicinity of the proposed project, to further determine potential adverse impacts from the proposed project to the species of concern, a habitat evaluation (*Email correspondence dated April 12, 2023; SIR Letter dated May 29, 2023*) was requested for the subject property.

As Pennsylvania qualified/recognized and properly permitted surveyors of the Timber Rattlesnake, Mr. Stan Boder and Mr. Rex Everett were contracted to evaluate the habitats on site to determine their potential to support Timber Rattlesnakes and species occupancy at the site. According to the report (*Timber Rattlesnake Habitat Assessment and Presence/Absence Survey Report: CPV Rogue's Wind Energy Project* conducted by EnviroScience, Inc., report dated June 8, 2023), critical habitat for Timber Rattlesnake den and gestation sites are present on the project site and Timber Rattlesnake presence was established within the vicinity of the project site. I concur with their findings based on the report and photographs.

Timber Rattlesnakes occur in relatively high elevation forested, mountainous regions of the Commonwealth. They prefer forested areas to forage for small mammals (e.g., mice and chipmunks) and southerly-facing slopes for hibernating and other thermoregulatory activities. The Timber Rattlesnake is threatened by habitat loss/alteration, wanton killing, and poaching. In Pennsylvania, Timber Rattlesnakes are a protected species. Special (venomous snake) permits are needed to hunt individual rattlesnakes, and only legal sized males (>42 inches) can be taken during a restricted hunting season. However, communal overwintering and gestation sites are considered critical habitats for the species and are therefore protected through the environmental review process. Also, due to the species being venomous, projects that come in close proximity to these critical habitats will likely encounter the species and potentially pose health and human safety concerns to project workers. Therefore, in these consultations, the PFBC aims to avoid and minimize impacts to the species and address health and human safety issues.

We are concerned about direct and indirect effects that the proposed project could have on the

local population of the Timber Rattlesnake. If the work is to be conducted out of the active season of the Timber Rattlesnake, then I do not anticipate any adverse impacts to this species of special concern. **However, if work is to be conducted from April 15-October 15, then I recommend that you take the following precautions to safeguard workers and rattlesnakes:**

1. A PFBC approved Timber Rattlesnake biologist who has the proper permits (Scientific Collector's Permit), and the proper skills to handle this venomous species will be on-site prior to and during construction. Enclosed is the list of PFBC approved rattlesnake biologists for your convenience.

2. The PFBC approved Timber Rattlesnake biologist will be on-site prior to and during construction activities, during the above time frame, to inspect and clear the area (including staging areas and access roads) of Timber Rattlesnakes and to capture and remove any rattlesnakes that may interfere with work activities.

3. Timber Rattlesnakes observed on-site are to be measured, sexed, and the habitat characterized where the snake was found. All captured snakes should be released within close proximity (under 100 meters) of the capture site if possible. Rattlesnake captures and relocations are to be documented by photographs, habitat descriptions, in addition to being mapped and labeled accordingly. The biologist is to submit a report to this office (Natural Diversity Section) following the completion of the project documenting all of the activity and herpetofauna encountered.

4. If erosion control fabric is to be used at this site, materials that are known to reduce the risk of snake entrapment should be selected, such as loosely woven natural fiber ECM. Use of monofilament/plastic netting should be avoided.

5. Workers responsible for implementing this project should be advised that Timber Rattlesnakes may be encountered and that avoidance is the best means of minimizing risks to personal safety. It is suggested a procedure be implemented for Timber Rattlesnake encounters and workers are to be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of Timber Rattlesnakes is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.

6. Avoid disturbance to the confirmed Timber Rattlesnake denning/hibernation habitats during construction of the Project. Create Timber Rattlesnake gestation/basking habitat to replace what may be disturbed during construction of the Project. Large rocks can be used as they become available, during the construction process, for the creation of gestation habitat following the PFBC guidelines for Timber Rattlesnake Habitat Creation (see attached).

7. During the construction period, PFBC personnel may communicate with the on-site biologist and may visit the site area periodically to view the progression of the project and answer any questions or concerns that may arise. For safety purposes, PFBC personnel will register with the on-site manager upon entering the construction area.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Josh Brown at 814-359-5129 or joshubrown@pa.gov and refer to the SIR # 57835. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

Christopher A. Urban, Chief
Natural Diversity Section

CAU/JRB/dn

Enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801-4850

March 12, 2025

Jeff Zirpoli
BOW Renewables, LLC
1813 Main Street
Blakely, PA 18447

RE: USFWS Project # 2023-0086763
PNDI # 693177

Dear Mr. Zirpoli:

The U.S. Fish and Wildlife Service (Service) received your emails of December 11, 2024, and March 5, 2025, requesting an updated correspondence regarding the CPV Rogue's Wind project (Project) located in Cambria and Clearfield Counties, Pennsylvania. The proposed project is located within the range of the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and proposed endangered tricolored bat (*Perimyotis subflavus*). The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.; Act).

The Project consists of 19–20 wind turbines with a production capacity of 112–120 megawatts, access roads, a substation, electrical collection lines, and temporary laydown areas. The Project is currently under construction in accordance with our previous letters dated October 1, 2019, April 16, 2020, and June 9, 2023. All trees have been removed. Approximately 72.7 acres of forest disturbance has occurred.

Since our last correspondence, the Service has developed the following updated guidance dated August 2024: *Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Tricolored Bat (Perimyotis subflavus)* and *Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Northern Long-eared Bat (Myotis septentrionalis).* You are requesting updated clearance from the Service based on the avoidance and minimization measures you are proposing to implement in association with this guidance.

Should the tricolored bat be listed during the life of the Project, you are committing to comply with Option 1 curtailment strategy in the *Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Tricolored Bat (Perimyotis subflavus)*. With the implementation of this Option, project effects on the tricolored bat will be insignificant or discountable.

Effects determinations in our previous letters regarding the Indiana bat and northern long-eared bat remain unchanged.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

If you have any questions regarding this matter, please contact Pamela Shellenberger of my staff at 814-206-7459.

Sincerely,

Jodie Mamuscia
Project Leader

EXHIBIT 7

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

December 20, 2021

Justin McKissick
TRC Companies
317 E Carson Street, Suite 338
Pittsburgh PA 152190000

RE: ER Project # 2021PR02605.042, Rogue's Wind Project, Department of Environmental Protection

Dear Justin McKissick:

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Archaeological Resources
No Archaeological Concerns - Environmental Review - Negative Survey Report/Negative Survey Form

This report meets our standards and specifications as outlined in Guidelines for Archaeological Investigations in Pennsylvania (SHPO 2021) and the Secretary of the Interior's Guidelines for Archaeological Documentation. We agree with the recommendations of this report, and in our opinion, no further archaeological work is necessary for this project. If project plans should change and/or you should be made aware of historic property concerns, please reinitiate consultation with our office using PA-SHARE.

For questions concerning archaeological resources, please contact Justin McKeel at jusmckeel@pa.gov.

Sincerely,

Emma Diehl
Environmental Review Division Manager

Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

June 23, 2022

Curtis Biodich
TRC
2200 Liberty Avenue
Suite 100
Pittsburgh PA 15222

RE: ER Project # 2021PR02605.055, Rogue's Wind Project, Department of Environmental Protection

Dear Curtis Biodich:

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 - Historic Properties Present - Above Ground

The following historic properties, listed in or eligible for the National Register of Historic Places, are located in the project area of potential effect: Nicholas Beck, Jr. Farm, Nicholas Beck/James C. Leamer Farm, Frank Born Farm, Leo V. Buck Farm, and W. Karlheim Property. Based on the information received and available in our files, in our opinion, the proposed project will have No Effect on these historic properties. 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 Barbara Frederick at bafrederic@pa.gov.

Sincerely,

Emma Diehl
Environmental Review Division Manager

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

LETTER OF NOTIFICATION OF MID-ATLANTIC INTERSTATE TRANSMISSION, LLC FOR APPROVAL TO LOOP APPROXIMATELY 380 FEET OF THE EXISTING GARMAN-SHAWVILLE 115 KILOVOLT SM TRANSMISSION LINE INTO THE NEW CHEST CREEK SUBSTATION IN CHEST TOWNSHIP, CLEARFIELD COUNTY, PENNSYLVANIA	**Docket No. _____**

VERIFICATION

I, Michael DeSarro, state that I am a Transmission Specialist for FirstEnergy Service Company; that I am authorized to make this Verification on behalf of Mid-Atlantic Interstate Transmission, LLC; and that the facts set forth in the Letter of Notification are true and correct to the best of my knowledge, information, and belief. I understand that the statements herein are subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 7, 2025

Michael DeSarro