
Garrett P. Lent
Associate

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October 20, 2022

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Letter of Notification of PPL Electric Utilities Corporation, Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, For Approval To Reconductor Approximately 14.2 Miles Of The Existing Juniata—Cumberland 230 kV Transmission Line That Extends Between The Juniata 500-230-69 kV Substation Located In Perry County, Pennsylvania And The Cumberland 230-69 kV Substation Located In Cumberland County, Pennsylvania
Docket No. A-2022-_____**

Dear Secretary Chiavetta:

Attached for filing is the Letter of Notification of PPL Electric Utilities Corporation in the above-referenced proceeding. As indicated on the Certificate of Service, copies of the Letter of Notification are being served by certified mail, return receipt requested, upon the involved governmental agencies, municipalities and property owners. Construction of the Project will commence upon the Commission's approval of this filing, with an estimated construction start date of August 2023 with an anticipated in-service date of October 2023.

If you have any questions concerning this matter, please contact me at the address or telephone numbers provided above.

The associated \$350.00 filing fee has been paid by Post & Schell, P.C. as of the time of filing.

Rosemary Chiavetta, Secretary
October 20, 2022
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Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Garrett P. Lent".

Garrett P. Lent

GPL/dmc
Enclosures

cc: Renardo Hicks, Esquire
Paul T. Diskin, Esquire
Jordan Van Order, Esquire
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA CERTIFIED MAIL: RETURN RECEIPT REQUESTED

Pennsylvania Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
2nd Floor, Room-N201
Harrisburg, Pennsylvania 17120
Attn: Richard Kanaskie

Pennsylvania Department of Environmental Protection
400 Market Street
10th Floor Rachel Carson State Office Building
Harrisburg, Pennsylvania 17101
Attn: Regional Permit Coordination Office

Pennsylvania Department of Transportation
Keystone Building
400 North Street, Fifth Floor
Harrisburg, Pennsylvania 17120
Attn: Donald J. Smith, Acting Chief Counsel

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0053
Attn: Mr. Douglas C. McLearn, Chief

Pennsylvania Department of Conservation and Natural Resources
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17105-8767
Attn: Rebecca Bowen, Ecological Services Section Chief

Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797
Attn: Peter Sussenbach, Director, Bureau of Wildlife Habitat Management

Pennsylvania Fish and Boat Commission
Center Region Office
595 East Rolling Ridge Drive
Bellefonte, Pennsylvania 16823-9620
Attn: Christopher A. Urban, Chief, Natural Diversity Section

Pennsylvania Office of Consumer Advocate
555 Walnut Street
5th Floor Forum Place
Harrisburg, Pennsylvania 17101-1923
Attn: Patrick Cicero, Consumer Advocate

Pennsylvania Office of Small Business Advocate
555 Walnut Street
1st Floor Forum Place
Harrisburg, Pennsylvania 17101
Attn: NazAarah, Small Business Advocate

U.S. Army Corps of Engineers
Baltimore District Corporate
Communication Office
2 Hopkins Plaza
Baltimore, Maryland 21201
Attn: Planning Division

U.S. Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801
Attn: Lesa Lindsay

Perry County Planning Commission
20 West. McClure Street
New Bloomfield, Pennsylvania 17068
Attn: Jason Finnerty, Planning Coordinator

Perry County Conservation District
31 West Main Street P.O. Box 36
New Bloomfield, Pennsylvania 17068
Attn: Sally Tengeres, District Manager

Cumberland County Planning Department
310 Allen Road
Suite 101
Carlisle, Pennsylvania 17013
Attn: Kirk Stoner, Director

Cumberland County Conservation District
310 Allen Road
Suite 301
Carlisle, Pennsylvania 17013
Attn: Duff George, Chairman

Centre Township
2971 Cold Storage Road
New Bloomfield, Pennsylvania 17068
Attn: Colin Reynolds, Chairman

Carroll Township
50 Rambo Hill Road
Shermans Dale, Pennsylvania 17090
Attn: Kirby Kitner, Chairman

Rye Township
1775 New Valley Road
Marysville, Pennsylvania 17053
Attn: James M. Sabo, Chairman

Middlesex Township
350 N. Middlesex Road
Carlisle, Pennsylvania 17013
Attn: Donald S. Geistwhite, Jr., Chairman

Silver Spring Township
8 Flowers Drive
Mechanicsburg, Pennsylvania 17050
Attn: Carl R. Machamer, Chairman Board of
Supervisors

Ronald V Adams
245 Mountainview Road
Shermans Dale, Pa 17090-7905

Barry N & Beth A Arnold
8062 Spring Road
New Bloomfield, Pa 17068-8240

Curtis M Barnett & Holly J Wendell
7555 Wertzville Road
Carlisle, Pa 17015-9022

John H & Ellen Bear
283 Dark Hollow Road
Shermans Dale, Pa 17090-8203

James M & Leisa B Bentsel
128 Evergreen Road
Shermans Dale, Pa 17090-8102

Robert O & Margaret M Bricker
430 Sherwood Drive
Carlisle, Pa 17015-9026

Thomas N & Zoe A Jr Burd
8075 Spring Street
New Bloomfield, Pa 17068-8240

Robert S & Nancy A Campbell
Po Box 129
Newport, Pa 17074-0129

Melissa M Anderson
734 Creek Road
Shermans Dale, Pa 17090-8721

Elizabeth N Bailey
44 Parkenson Road
New Bloomfield, Pa 17068-9200

Melodie E & Timothy I Beam
25 Richwine Road
Marysville, Pa 17053-9743

Guy D Benfer
20 Mountain View Road
Shermans Dale, Pa 17090-7900

Charles R Jr., Bradford & Nicholas Dillman
3220 Cold Storage Road
New Bloomfield, Pa 17068-8624

Edward J & Nancy J Buczeskie
702 Mountain Road
Shermans Dale, Pa 17090-8526

Mathew J Byers
312 Witwer Way
Mount Joy, Pa 17552-1162

David Chilson
392 Sandy Hollow
Shermans Dale, Pa 17090-8034

Club Road Properties Limited Partnership
4400 Deer Path Road Suite 201
Harrisburg, Pa 17110-3908

Dark Hollow LTD Partnership
115 Brook Lane
Marysville, Pa 17053-9500

Robert C Jr. & Susan L Drabenstadt
136 Sunnyside Drive
Carlisle, Pa 17015-9039

Diane M Everitt
6898 Spring Road
Shermans Dale, Pa 17090-8116

Matthew S Farson
45 Richwine Road
Marysville, Pa 17053-9743

Warren E & Lisa A Fry
596 Mountain View Road
Shermans Dale, Pa 17090-7912

John W Gleim Jr.
625 Hamilton Street
Carlisle, Pa 17013-1925

James P & Amy E Gustin
8102 Spring Road
New Bloomfield, Pa 17068-8241

Percy D Hipple Jr.
264 Roth Road
New Bloomfield, Pa 17068-8545

David H Clymer
10 Valley Ranch Road
Shermans Dale, Pa 17090-9549

Department Of The Interior, United States
Of America
1849 C St N.W.
Washington, Dc 20240

East Pennsylvania Assn SDA Church
720 Museum Road
Reading, Pa 19611-1429

Jordan H Farson & Joshua A Arnold
29 Richwine Road
Marysville, Pa 17053

Robert E & Kay E Fenton
7582 Wertzville Road
Carlisle, Pa 17015-9044

Tracy K & Barbara J Gleim
450 Sherwood Drive
Carlisle, Pa 17015-9026

Perry County Archery Club C/O Ralph
Grove
7795 Spring Road
New Bloomfield, Pa 17068-8223

Robert L & Ruth Henry
350 Mountain View
Shermans Dale, Pa 17090-7906

Jeremy L & Angela J Hockenberry
8157 Spring Road
New Bloomfield, Pa 17068-8241

Jerry Horning
10 Hoover Lane
Bethel, Pa 19507-9776

Francis T & Polly Ann Jacobs
4904 Mckenna Court
Columbia, Mo 65203-6209

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352 Sandy Hollow Road
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Allen R & Darla R Lupfer
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Lucinda S Manning
738 Huckleberry Road
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Gretchen & Frank W Jr. Meise
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Marysville, Pa 17053-9743

John J & Judy L Hostetter
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Francis M & Linda J Keller
708 Mountain Road
Shermans Dale, Pa 17090-8526

KMWW C/O Fortune Financial
2355 Westwood Blvd Suite 1404
Los Angeles, Ca 90064-2109

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John R & Tenessa Miller
Po Box 645
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F & L Living Trust C/O Lester S Miller Jr.
321 Country Club Road
Carlisle, Pa 17015

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Daniel T Paul
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Shermans Dale, Pa 17090-8555

James E & Jody M Mitchell
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Gaffney, SC 29341-5134

Jeffrey A & Shelby A Nelson
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Aquillas O & Barbara A Peachey
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Timothy L & Annemarie E Potteiger
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Enola, Pa 17025-3215

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Shermans Dale, Pa 17090-8102

Daphney L & Jordan R Sweger
11 Valley Ranch Road
Shermans Dale, Pa 17090-9549

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716 Pine Grove Road
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Barry A & Linda J Tienter
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725 Dix Hill Road
New Bloomfield, Pa 17068-8634

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Shermans Dale, Pa 17090-8101

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35 Evergreen Road
Shermans Dale, Pa 17090

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Po Box 292
Camp Hill, Pa 17001-0292

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589 Dix Hill Road
New Bloomfield, Pa 17068-8632

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Pine Grove, Pa 17963

Randal & Anne Thompson
249 Roth Road
New Bloomfield, Pa 17068-8545

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4 Alexander Court
Mechanicsburg, Pa 17050-1769

TSW Valley View LLC
1927 Monterey Drive
Mechanicsburg, Pa 17050-8510

William Weible
232 Roth Road
New Bloomfield, Pa 17068-8545

Jerry R Woltz & Patricia A Ray
130 Soule Road
New Bloomfield, Pa 17068-8553

Charles E & Jessica L Wright
843 Mountain Road
Shermans Dale, Pa 17090-8527

Brent D Yocum II
12 Valley Ranch Road
Shermans Dale, Pa 17090-9549

Date: October 20, 2022



Garret P. Lent

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Letter of Notification of PPL Electric :
Utilities Corporation, Filed Pursuant to :
52 Pa. Code Chapter 57 Subchapter G, : Docket No. A-2022-_____
For Approval To Reconductor :
Approximately 14.2 Miles Of The :
Existing Juniata—Cumberland 230 kV :
Transmission Line That Extends :
Between The Juniata 500-230-69 kV :
Substation Located In Perry County, :
Pennsylvania And The Cumberland :
230-69 kV Substation Located In :
Cumberland County, Pennsylvania :

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

PPL Electric Utilities Corporation (“PPL Electric”) hereby files, pursuant to 52 Pa. Code § 57.72(d)(v), this Letter of Notification to request approval from the Pennsylvania Public Utility Commission (“Commission”) to replace the existing conductor wires along the Juniata-Cumberland 230 kV Transmission Line that extends for 14.2 miles between the Juniata 500-230-69 kV Substation (“Juniata Substation”) in Perry County, Pennsylvania and the Cumberland 230-69 kV Substation (“Cumberland Substation”) in Cumberland County, Pennsylvania (the “Project”). The Project is needed to resolve transmission line congestion on Juniata-Cumberland 230 kV Transmission Line as identified by PJM Interconnection, LLC (“PJM”) in the 2021 Regional Transmission Expansion Plan (“RTEP”) Market Efficiency Analysis. The proposed Project is a PJM baseline project approved by PJM on February 16, 2022, and PPL Electric is required to complete the Project by December 31, 2023. Subject to the Commission’s approval,

construction is scheduled to begin in August 2023 to support the in-service date of October 2023. In support thereof, PPL Electric states as follows:

I. INTRODUCTION

1. This Letter of Notification is filed by PPL Electric, a public utility that provides electric distribution, transmission, and provider of last resort services in Pennsylvania subject to the regulatory jurisdiction of the Commission.

2. PPL Electric’s address is PPL Electric Utilities Corporation, Two North Ninth Street, Allentown, Pennsylvania 18101.

3. PPL Electric’s attorneys are:

Michael J. Shafer (I.D. # 205681)
PPL Services Corporation
Two North Ninth Street
Allentown, PA 18101
Voice: 610-774-2599
Fax: 610-774-4102
E-mail: mjshafer@pplweb.com

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

PPL Electric’s attorneys are authorized to receive all notices and communications regarding this Letter of Notification.

4. PPL Electric furnishes electric service to approximately 1.4 million customers throughout its certificated service territory, which includes all or portions of twenty-nine counties and encompasses approximately 10,000 square miles in eastern and central Pennsylvania. PPL Electric is a “public utility” and an “electric distribution company” as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code. *See* 66 Pa.C.S. §§ 102, 2803.

5. PPL Electric owns approximately 5,000 miles of transmission lines operating at 69 kV (kilovolts) or higher, approximately 375 substations with a capacity of 10 MVA (megavolt amperes) or more, and approximately 43,000 miles of distribution lines operating at less than 69 kV.

6. This Letter of Notification includes the following accompanying Attachments:

- Attachment 1 Necessity Statement.
- Attachment 2 Engineering Description.
- Attachment 3 Description of the Project Area.
- Attachment 4 PPL Electric Design Criteria and Safety Practices.
- Attachment 5 Landowners and Agencies List.

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

II. THE PROJECT

A. NEED FOR THE PROJECT

8. PJM is a Federal Energy Regulatory Commission (“FERC”)-approved Regional Transmission Organization (“RTO”) charged with ensuring the reliability of the electric transmission system under its functional control (100 kV and above) and coordinating the movement of electricity in all or parts of thirteen states and the District of Columbia, including Pennsylvania. In order to ensure reliable transmission service, PJM prepares an annual RTEP¹ to

¹ PJM’s RTEP process is currently set forth in Schedule 6 of PJM’s Amended and Restated Operating Agreement (“Schedule 6”). Schedule 6 governs the process by which PJM’s members rely on PJM to prepare an annual regional plan for the enhancement and expansion of transmission facilities to ensure long-term, reliable electric service consistent with established reliability criteria. In addition, Schedule 6 addresses the procedures used to develop the RTEP, the review and approval process for the RTEP, the obligation of transmission owners to build

identify system reinforcements that are required to, among other things, meet the NERC Reliability Standards, PJM reliability planning criteria, and Transmission Owner reliability criteria.

9. In addition to the reliability analysis, PJM's RTEP includes a Market Efficiency Analysis to identify congestion on electric transmission facilities that have economic or wholesale market effects, as well as potential improvements to electric transmission economic efficiencies. The electric transmission needs identified in this analysis stem from the fact that the PJM transmission grid provides the means for generators to participate in a competitive wholesale market to supply electricity, both capacity and energy, to customers in PJM's geographic footprint no matter where in this area the electrical load is located.

10. The market efficiency projects that are selected through PJM's Long Term Proposal Window are presented to stakeholders and recommended to the PJM Board of Managers ("PJM Board") for approval. If approved, such market efficiency projects are included in the RTEP as Baseline Projects.

11. Importantly, pursuant to Schedule 6 of PJM's Amended and Restated Operating Agreement, after the PJM Board approves a proposed market efficiency project, the successful project proponent is obligated to complete the project once PJM and the successful entity execute a Designated Entity Agreement, which specifically designates the entity or entities having construction responsibility for the project.

12. As explained in greater detail below, and in Attachment 1 – Necessity Statement, the Project is required to improve electric transmission economic efficiencies and alleviate electric transmission congestion on the Juniata-Cumberland 230 kV Transmission Line, which

transmission upgrades included in the RTEP, and the process by which interregional transmission upgrades will be developed.

were identified by PJM pursuant to the Market Efficiency Analysis performed in PJM's 2021 RTEP.

1. Existing System

13. The Juniata 500-230-69 kV Substation located in Perry County, and the Cumberland 230-69 kV Substation located in Cumberland County are connected by the existing Juniata–Cumberland 230 kV Transmission Line. This transmission line is approximately 14.2 miles long and is supported by lattice tower structures.

14. These towers are designed for single circuit 230 kV operation for 10.7 miles and double circuit (with one circuit attached) for 3.5 miles. The Juniata–Three Mile Island single circuit 500 kV transmission line is collocated in the same right-of-way as the Juniata–Cumberland 230 kV Transmission Line for 12.3 miles.

15. The Juniata–Cumberland 230 kV Transmission Line is in PPL Electric's Harrisburg Region and is part of a larger 230 kV transmission network that connects generation in this region to load throughout PPL Electric and rest of PJM's footprint. This 230 kV network includes the Lewistown–Juniata 230 kV Transmission Line, the Juniata–Dauphin 230 kV Transmission Line, the Cumberland–Juniata 230 kV Transmission Line, and the Cumberland–Williams Grove 230 kV Transmission line that support bulk power flow and feed various 230-69 kV substations in the Harrisburg Region. The Juniata–Cumberland 230 kV Transmission Line is an important north to south path for power flowing from western Pennsylvania to south-central Pennsylvania. This line experiences significant loading and the operational limits of the conductor result in off cost generation.

16. A one-line diagram of the existing 230 kV system is provided as Figure 1-1 in Attachment 1 – Necessity Statement. A map of the existing system alignment is provided as Figure 1-2 in Attachment 1 – Necessity Statement.

2. Need for the Project

17. In January 2020, PJM opened a Long-Term Proposal Window to solicit proposals to address, among other things, transmission congestion on the Juniata–Cumberland 230 kV Transmission Line.

18. The Juniata–Cumberland 230 kV Transmission Line was identified as having \$5.77 million and \$6.39 million in expected congestion in the model years 2025 and 2028, respectively.

19. As explained in further detail in Attachment 1 – Necessity Statement, PJM received three proposals specifically to address the congestion on the Juniata–Cumberland 230 kV Transmission Line. After evaluation and review with stakeholders, PJM selected Proposal 218 (i.e., the Project), because it provided the highest benefit-to-cost ratio (11.28), the most total congestion savings, and the most production cost savings.

20. On February 16, 2022, the PJM Board approved Proposal 218 (i.e., the Project) as a Baseline Upgrade with number B3698.²

B. THE PROPOSED PROJECT

21. The Project as approved by PJM to resolve the identified congestion on the Juniata–Cumberland 230 kV Transmission Line involves replacing the 14.2 miles of existing conductor on the Juniata–Cumberland 230 kV Transmission Line with a high ampacity conductor. The existing 230 kV terminals at the Juniata and Cumberland substations will remain the same. The existing towers will be re-used for the majority of the Project with only one structure being replaced.

² <https://www.pjm.com/-/media/committees-groups/committees/teac/2022/20220208/20220208-pjm-teac-board-whitepaper-february-2022.ashx>

22. As explained in Attachment 2 – Engineering Description, one single-circuit steel lattice tower structure (Structure 27) will be replaced due to the additional sag of the new ACSS³ conductor. This structure needs to be replaced to maintain specific ground clearances for National Electrical Safety Code (“NESC”) compliance.

23. The existing single-circuit steel lattice tower structures range in height from between approximately 84.5 and 145 feet with an average structure height of approximately 109.5 feet. The proposed new structure (Structure 27) will have a height of 105 feet.

24. The proposed Juniata-Cumberland 230 kV Transmission Line will consist of three 1272 kcmil, 39/19 stranding, “Pheasant” ACSS/TW⁴ conductors. The minimum conductor-to-ground clearance will be 22.5 feet which occurs at the emergency maximum thermal conductor temperature of 250°C (482°F). Further details regarding the engineering of the proposed Project are provided in Attachment 2 – Engineering Description.

25. On June 24, 2022, PJM and PPL Electric executed a Designated Entity Agreement for PPL Electric to reconductor the Juniata–Cumberland 230 kV Transmission Line under Baseline number B3698. Pursuant to Schedule 6 of PJM's Amended and Restated Operating Agreement, and as stated in the Designated Entity Agreement, PPL Electric is required to complete the Project by December 31, 2023. The total estimated cost of this Project, as described below, is approximately \$9.0 million, and the cost for the Project will be allocated over multiple PJM member utilities.⁵

³ ACSS stands for aluminum conductor steel supported.

⁴ ACSS/TW stands for Trapezoidal ACSS.

⁵ The estimate cost was developed using averages of recent costs for similar projects and without an in-depth analysis of field investigation. The cost is subject to change as the constructability of the Project, sequence of construction, and other factors that may affect cost are identified and analyzed as the Project progresses.

26. A one-line diagram of the proposed 230 kV system is provided as Figure 1-3 in Attachment 1 – Necessity Statement. A map of the proposed system alignment is provided as Figure 1-4 in Attachment 1 – Necessity Statement.

III. HEALTH AND SAFETY

27. The proposed Project will not create any unreasonable risk of danger to the public health or safety.

28. The Project will be designed, constructed, operated, and maintained in a manner that meets or surpasses all applicable NESC minimum standards and all applicable legal requirements. Descriptions of PPL Electric’s design criteria and safety practices are provided in Attachment 4 to this Letter of Notification.

29. Consistent with its Magnetic Field Management Program and in order to minimize the potential for magnetic field exposure, the reconductored segment of the Juniata–Cumberland 230 kV Transmission Line will maintain existing ground clearances that are a minimum of three feet higher than the required NESC minimum ground clearance for 230 kV lines. A description of PPL Electric’s Magnetic Field Management Program is provided in Attachment 2 to this Letter of Notification.

IV. DESCRIPTION OF THE RIGHT-OF-WAY

30. The reconductoring Project will occur on the same structural alignment and on the existing structures, except for one structure that will be replaced. The Project will also be located on the same PPL Electric-fee-owned properties and in the same right-of-way (“ROW”) as the existing Juniata-Cumberland 230 kV Transmission Line, and the Juniata-Three Mile Island 500 kV and the Juniata-Cumberland #2 69 kV transmission lines. The existing ROW is between 150 and 325 feet wide. The Project will require the replacement of the existing structures that will be constructed entirely within the existing transmission line ROW, and PPL Electric intends to replace two existing wooden poles located at the Juniata Substation concurrent with the work associated with the Project, as detailed in Attachment 2 – Engineering Description.

31. PPL Electric maintains an existing transmission line ROW across all the private parcels crossed along the 14.2 mile alignment, as more fully explained in Attachment 3 – Project Area Description.

32. The one structure to be replaced, which is detailed in Attachment 2 to this Letter of Notification, will be located in close proximity (within 20 feet) to the existing structure. An aerial map is provided at the end of Attachment 3 to this Letter of Notification, which depicts the proposed line and associated structures.

33. Two aerial plot plans are provided at the end of Attachment 1 - Necessity Statement. Figure 1-1 depicts the location of the existing transmission facilities associated with this Project. Figure 1-2 depicts the location of the proposed transmission facilities associated with this Project.

V. LAND USE AND ENVIRONMENTAL EVALUATION

34. As explained in Attachment 3 to this Letter of Notification, land use and environmental impacts are anticipated to be minimal due to the fact that the Project will be constructed using the existing tower structures (except for one tower that will be replaced) and will be located entirely within the existing ROW for the Juniata—Cumberland 230 kV Transmission Line. PPL Electric will use and update previously established access roads for construction to the extent practical to further reduce interference with existing uses and minimize land use impacts. A detailed description of the route of each individual component of the Project can be found in Attachment 3 – Project Area Description.

35. PPL Electric evaluated the existing land uses on the PPL Electric-owned properties within the existing ROW and within 0.25 mile (1,320 feet) of the ROW (“Project Area”). This broader Project Area was reviewed to provide a sense of the landscape in which the Project is located. Based on review of the 2019 National Land Cover Data (“NLCD”), the Project Area consists of 50% forest and 35% agriculture, with the remaining 15% comprised of developed land uses including residential, commercial/industrial, and transportation areas.

36. The Project does not cross any railroads.

37. Five gas pipelines are crossed by the Project. Four Texas Eastern pipelines cross the Project just south of Sherman Creek near the town of Shermans Dale and are contained within the same 150 foot wide ROW. The one other pipeline is owned by the TE Products Pipeline Company and is located north of State Route 944 near Wertzville.

38. The Project also crosses other PPL Electric electrical utility ROW’s adjacent to the Juniata and Cumberland Substations.

39. The closest active airports relative to the Project Area are the Carlisle Airport, which is located approximately 5 miles south of the Cumberland Substation and the Capital City

Airport, which is approximately 13 miles to the southeast of the Cumberland Substation near Harrisburg. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities. However, PPL Electric will comply with any applicable requirements of the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

40. The proposed Project will not affect any national parks, state parks, local parks, recreational areas, or natural landmarks. The Project crosses a series of federal easement properties that are associated with a section of the Appalachian National Scenic Trail west of Bernheisel Bridge Road near the Cumberland Substation. Stony Ridge local park is also adjacent to the Cumberland Substation on the east side of Bernheisel Bridge Road and Valley Road Park is directly adjacent to the project ROW north of State Road 850 near Shermans Dale. In addition, the project crosses a Cumberland County agricultural easement which is adjacent to the Cumberland Substation. None of the conserved properties mentioned above will be impacted by the Project.

41. An online review of the Project Area and surrounding landscape was conducted through the Pennsylvania Historical and Museum Commission (“PHMC”) State Historic and Archaeological Resource Exchange website. Four State Historic Preservation Office (“SHPO”) eligible structures and districts that were found within or close to the Project Area. As explained in detail in Attachment 3 – Project Area Description, PPL Electric is in the initial stage of coordination with the PHMC for the modifications being made to the transmission lines. This coordination will be required to receive permits to construct the Project and will be conducted in the near future. PPL Electric does not anticipate any impacts to SHPO listed or eligible structures or districts. PPL Electric will perform any reviews and field survey/sampling work

required by the PHMC to avoid, minimize, and mitigate impacts to archaeological or historic architectural resources that may be located within the Project Area.

42. No unique geological, scenic, or natural areas are located within the Project Area, according to the Pennsylvania Department of Conservation and Natural Resources (“PDCNR”).

43. Erosion and Sedimentation (“E&S”) control plans will be developed and implemented for the Project to minimize the displacement of soils. These plans will require prior approval from the local county conservation districts. National Pollutant Discharge Elimination System (“NPDES”) permits will also be required from the Pennsylvania Department of Environmental Protection (“PADEP”) as needed. During construction, PPL Electric will adhere to all conditions specified in the NPDES permit. Impacts to local soil resources are anticipated to be minimal.

44. The existing transmission line spans several National Hydrography Dataset waterways that will remain in place after the Project construction activities have occurred. Review of the United States Geological Survey (“USGS”) mapping website indicated that the Project will aurally span four named streams: Fishing Run, Shermans Creek, Trout Run, and Conodoguinet Creek. The Project Area is located within the Little Juniata Creek watershed (USGS Hydrologic Unit Code (“HUC”) 020503051001), the Lower Sherman Creek watershed (HUC 020503050107), the Simmons Creek-Conodoguinet Creek watershed (HUC 020503050406), and the Letort Spring Run watershed (HUC 020503050404). All of these watersheds generally flow east toward the Susquehanna River.

45. The streams in the Project Area have a PADEP Chapter 93 Designated Use Stream Classification of either Warm Water Fishes (“WWF”) or Cold Water Fisheries (“CWF”). Trout Run is listed as a CWF and Fishing Run, Shermans Creek and Conodoguinet Creek have a

designated use of WWF. All streams that cross the Project are recognized as Migratory Fish (“MF”) waters. No direct impact to these stream features is anticipated by the Project activities.

46. An E&S control plan will be developed to address stormwater control in all watershed areas crossed by the Project. PPL Electric will obtain all approvals and permits necessary for the construction of the Project and will comply with any conditions placed on those permits.

47. The National Flood Hazard Layer for Perry and Cumberland Counties, Pennsylvania was obtained through the Federal Emergency Management Agency (“FEMA”) Flood Map Service Center website and analyzed for 100-year floodplains within the Project Area and surrounding landscape. No impacts to the floodplain areas located in Perry and Cumberland County are anticipated by the proposed Project activities.

48. Vegetative cover in the Project Area consists of a mix of forest, agricultural use, and developed areas. The existing ROW areas for the transmission line have previously been cleared of woody vegetation and no extensive tree clearing is anticipated on the line. If vegetation management is required in this specific location, PPL Electric will apply its “Specifications for Transmission Vegetation Management LA-79827” to minimize potential impacts.

49. Based on review of the *Natural Areas Inventory of Perry County, Pennsylvania*, published by The Nature Conservancy in 2005, the Project does not extend through any Pennsylvania Natural Heritage Program identified natural areas in Perry County. Similarly, based on the *Natural Areas Inventory of Cumberland, Pennsylvania*, published by The Nature Conservancy in 2005, indicates that no Pennsylvania Natural Heritage Program areas are crossed by the Project in Cumberland County.

50. A Pennsylvania Natural Diversity Inventory (“PNDI”) review was completed on September 30, 2022, to assess the potential presence of threatened and endangered species and/or special concern species in the Project area. The PNDI process concluded that no threatened and endangered species are located in or near the Project area.

VI. NOTICE

51. This Project will be constructed in Centre Township, Carroll Township, and Rye Township in Perry County, Pennsylvania, and in Middlesex Township and Silver Spring Township in Cumberland County, Pennsylvania. PPL Electric has provided information regarding the Project to representatives of each of these townships, as well as the representatives of Perry County and Cumberland County. These entities have not objected to the proposed Project.

52. Copies of this Letter of Notification will be served on governmental agencies, municipalities, and other public entities agencies in accordance with 52 Pa. Code § 57.72(d)(3).

53. Copies of this Letter of Notification will be served on the owners of land subject to the rights-of-way and easements used by the Project in accordance with 52 Pa. Code § 57.72(d)(3).

VII. LETTER OF NOTIFICATION

54. PPL Electric is proceeding by means of a Letter of Notification, instead of a full Application, pursuant to the Commission’s regulations at 52 Pa. Code § 57.72(d)(1)(v).

55. The proposed Project qualifies for use of a Letter of Notification because the subject transmission line will be reconducted, and the size, character, design or configuration of the proposed reconductoring will not substantially alter the existing ROW. Importantly, as

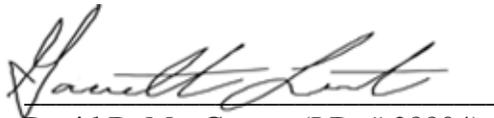
noted above, the Project only requires the replacement of one structure, which will result in a decrease of this structure's height. *See also* Attachment 2 – Engineering Description.

56. 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.*

VIII. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests Pennsylvania Public Utility Commission approval to replace the existing conductor wires along the Juniata-Cumberland 230 kV Transmission Line that extends for 14.2 miles between the Juniata Substation in Perry County and the Cumberland Substation in Cumberland County, Pennsylvania, as explained above and in the Attachments hereto.

Respectfully submitted,



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Attorneys for PPL Electric Utilities Corporation

**PPL ELECTRIC
ATTACHMENT 1**

JUNIATA-CUMBERLAND 230 KV RECONDUCTOR PROJECT

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1.0 INTRODUCTION

PPL Electric Utilities Corporation (“PPL Electric”) is requesting Pennsylvania Public Utility Commission (“PUC” or “the Commission”) approval to replace the existing conductor wires along the Juniata-Cumberland 230 kV Transmission Line that extends for 14.2 miles between the Juniata 500-230-69 kV Substation (“Juniata Substation”) in Perry County, Pennsylvania and the Cumberland 230-69 kV Substation (“Cumberland Substation”) in Cumberland County, Pennsylvania (the “Project”). The Project is required to improve electric transmission economic efficiencies and alleviate electric transmission congestion on the Juniata-Cumberland 230 kV Transmission Line.

The Project as approved by PJM involves replacing the existing conductor on 14.2-mile-long single-circuit Juniata-Cumberland 230 kV Transmission Line with a higher ampacity conductor. The new conductor will be sized to minimize the need for replacement of the existing towers. Only one existing steel monopole tower requires replacement as explained in Attachment 2 – Engineering Description.

Subject to the Commission’s approval, construction will begin in August 2023 to support an in-service date of October 2023.¹ PPL Electric will continue to own, operate, and maintain the reconducted 230 kV transmission lines. The total estimated cost of this Project, as described below, is approximately \$9.0 million, and the cost for the Project will be allocated over multiple PJM Interconnection, LLC (“PJM”) member utilities.²

¹ PPL Electric is submitting the Letter of Notification in our schedule at a point in time that will allow the Company to maintain our planned construction schedule and, in the end, complete our scheduled in-service requirement. PPL Electric’s schedule accounts for long lead material timelines, additional detailed engineering activities, and construction competitive bidding that all will need to be completed prior to construction start. In addition, it also should be noted that we have had to increase material procurement durations and shipping durations based on industry and national supply chain delays on certain materials.

² The estimate cost was developed using averages of recent costs for similar projects and without an in-depth analysis of field investigation. The cost is subject to change as the constructability of the Project, sequence of construction, and other factors that may affect cost are identified and analyzed as the Project progresses.

2.0 TRANSMISSION SYSTEM PLANNING PROCESS

The nation’s interconnected transmission grid serves as the backbone for the safe and reliable delivery of large amounts of electricity from generating stations over substantial distances to customers served by transmission and local distribution systems. It is critically important that this interconnected transmission system (*i.e.*, the “Transmission Grid”) be planned and designed to ensure that reliable electric service can be provided under all loading conditions and when certain elements of the Transmission Grid are out of service (system contingencies) due to planned or unplanned outages.

Robust Transmission Planning assures that the transmission system can supply electricity to all customer loads in a manner that is reliable and economical. This System Planning process ensures that both the Bulk Electric System (“BES”)³ and non-Bulk Electric System (non-BES)⁴ are planned and constructed so that:

- They can accommodate forecasted system flows during summer and winter peak load;
- They can adequately serve each customer’s need regarding capacity, voltage, and reliability for all load levels throughout the daily load cycle;
- They can sustain probable contingencies and disturbances with minimal customer service interruptions; and
- They are in conformance with NERC, PJM, and the Transmission Owner’s reliability criteria for all normal and emergency operating conditions.

PJM is a Federal Energy Regulatory Commission (“FERC”)-approved Regional Transmission Organization (“RTO”) charged with ensuring the reliability of the electric transmission system under its functional control (100 kV and above) and coordinating the movement of electricity in all or parts of thirteen states and the District of Columbia, including Pennsylvania. In order to ensure reliable transmission service, PJM prepares an annual Regional Transmission Expansion Plan (“RTEP”)⁵ to

³ Bulk Electric System (BES) includes transmission facilities operated at voltages of 100 kV or higher.

⁴ Non-Bulk Electrical System (non-BES) includes transmission facilities operated at voltages less than 100 kV.

⁵ PJM’s RTEP process is currently set forth in Schedule 6 of PJM’s Amended and Restated Operating Agreement (“Schedule 6”). Schedule 6 governs the process by which PJM’s members rely on PJM to prepare an annual regional plan for the

identify system reinforcements that are required to, among other things, meet the NERC Reliability Standards, PJM reliability planning criteria, and Transmission Owner reliability criteria.

In addition to the reliability analysis, PJM's RTEP includes a Market Efficiency Analysis to identify congestion on electric transmission facilities that have economic or wholesale market effects, as well as potential improvements to electric transmission economic efficiencies. The electric transmission needs identified in this analysis stem from the fact that the PJM transmission grid provides the means for generators to participate in a competitive wholesale market to supply electricity, both capacity and energy, to customers in PJM's geographic footprint no matter where in this area the electrical load is located.

The electric transmission infrastructure needs identified by the PJM Market Efficiency Analysis are addressed by market efficiency transmission projects, which are aimed specifically at improving electric transmission economic efficiencies and alleviating electric transmission constraints that have an economic impact on PJM's wholesale energy or capacity markets. When PJM's Market Efficiency Analysis identifies a need to relieve congestion on electric transmission facilities, PJM opens a Long-Term Proposal Window, to solicit the submittal of potential solutions (i.e., market efficiency projects) to address those needs.

PJM's solicitation of market efficiency project submittals through its Long-Term Proposal Window is a competitive process consistent with FERC Order No. 1000. Potential solutions are evaluated using two criteria: first, the project must address the congestion identified in the Market Efficiency Analysis; and second, the project benefits must exceed the costs by at least 25 percent. In addition, the project must meet PJM's congestion criteria and not create additional unacceptable congestion elsewhere on the system. Project benefits are measured by comparing the defined benefit metric with and without the

enhancement and expansion of the transmission facilities to ensure long-term, reliable electric service consistent with established reliability criteria. In addition, Schedule 6 addresses the procedures used to develop the RTEP, the review and approval process for the RTEP, the obligation of transmission owners to build transmission upgrades included in the RTEP, and the process by which interregional transmission upgrades will be developed.

proposed project for a 15-year study period.⁶ As explained below, the benefits associated with this project are primarily allocated to Pennsylvania.

The market efficiency projects that are selected through PJM's Long Term Proposal Window are presented to stakeholders and recommended to the PJM Board of Managers ("PJM Board") for approval. If approved, such market efficiency projects are included in the RTEP as Baseline Projects.

Importantly, pursuant to Schedule 6 of PJM's Amended and Restated Operating Agreement, after the PJM Board approves a proposed market efficiency project, the successful project proponent is obligated to complete the project once PJM and the successful entity execute a Designated Entity Agreement, which specifically designates the entity or entities having construction responsibility for the project.

3.0 THE NEED FOR THE PROJECT

3.1 Existing System

The Juniata 500-230-69 kV Substation and the Cumberland 230-69 kV Substation are connected by the Juniata–Cumberland 230 kV Transmission Line. This transmission line is approximately 14.2 miles long and is supported by lattice galvanized structures. These towers are designed for single circuit 230 kV operation for 10.7 miles and double circuit (with one circuit attached) for 3.5 miles. The Juniata–Three Mile Island single circuit 500 kV transmission line is collocated in the same right-of-way as the Juniata–Cumberland 230 kV Transmission Line for 12.3 miles.

The Juniata–Cumberland 230 kV Transmission Line is in PPL Electric's Harrisburg Region and is part of a larger 230 kV transmission network that connects generation in this region to load throughout PPL Electric and the rest of PJM's footprint. This 230 kV network includes the Lewistown–Juniata 230 kV

⁶ The economic benefit/cost ratio threshold test is set forth in PJM Manual 14B, Attachment E, available at: <https://www.pjm.com/~media/documents/manuals/m14b.ashx>

Transmission Line, the Juniata–Dauphin 230 kV Transmission Line, the Cumberland–Juniata 230 kV Transmission Line, and the Cumberland–Williams Grove 230 kV Transmission line that support bulk power flow and feeds various 230-69 kV substations in the Harrisburg Region. The Juniata–Cumberland 230 kV Transmission Line is an important north to south path for power flowing from western Pennsylvania to south-central Pennsylvania. This line experiences significant loading and the operational limits of the conductor result in off cost generation. Additionally, the loading that currently results on this line increases the risk that the line will need to be taken out of normal operation, which could result in service reliability issues.

A one-line diagram of the existing 230 kV system is provided as Figure 1-1. A map of the existing system alignment is provided as Figure 1-2.

3.2 Project Need

In January 2020, PJM opened a Long-Term Proposal Window to solicit proposals to address, among other things, transmission congestion on the Juniata–Cumberland 230 kV Transmission Line. The Juniata–Cumberland 230 kV Transmission Line was identified as having \$5.77 million and \$6.39 million in expected congestion in the model years 2025 and 2028, respectively. PJM received three proposals specifically to address the congestion on the Juniata–Cumberland 230 kV Transmission Line. After evaluation and review with stakeholders, PJM selected Proposal 218 (i.e., the Project), because it provided the highest benefit-to-cost ratio (11.28), the most total congestion savings, and the most production cost savings.⁷ On February 16, 2022, the PJM Board approved Proposal 218 (i.e., the Project) as a Baseline Upgrade with number B3698.⁸

⁷ <https://www.pjm.com/-/media/committees-groups/committees/teac/2021/20211130/20211130-final-review-and-recommendation-2020-21-long-term-window-1-cluster-3-ppl.ashx>

⁸ <https://www.pjm.com/-/media/committees-groups/committees/teac/2022/20220208/20220208-pjm-teac-board-whitepaper-february-2022.ashx>

4.0 ALTERNATIVES

PPL Electric submitted two potential solutions to address the congestion on the Juniata–Cumberland 230 kV Transmission Line. Two PPL Electric proposals were submitted and were compared by PJM against one proposal submitted by outside entities upon their ability to resolve the network congestion on the Juniata–Cumberland 230 kV Transmission Line.⁹ The two PPL Electric proposals were: (1) PPL Electric Proposal 218, to reconductor the existing Juniata–Cumberland 230 kV Transmission Line with a high ampacity conductor (i.e., the Project); and (2) PPL Electric Proposal 251, to rebuild the existing Juniata–Cumberland 230 kV Transmission Line to double circuit configuration, add a 230 kV bay position at Juniata and Cumberland substations to terminate the new second Juniata–Cumberland 230 kV Transmission Line, and reconductor the Cumberland–Williams Grove 230 kV Transmission Line with a high ampacity conductor.

PJM evaluated all the proposals submitted based on impact on the congestion driver and the benefit to cost ratio of each proposal. After the evaluation and review with stakeholders, PJM selected PPL Electric Proposal 218 as the preferred solution as it mitigated 100% of the congestion and had the greatest benefit to cost ratio. Table 1-1 provides PJM summary of the proposals.

TABLE 1-1: PJM Cluster No 3 Alternative Analysis

⁹ Two additional proposals (102 and 540) were included in the Cluster No. 3 analysis as they addressed multiple congestion drivers.

Cluster No. 3 (PPL) - Preliminary B/C Ratios					
Proposal ID	102	218	251	540	738
Proposal Description	Reston 230kV Capacitor	Juniata - Cumberland 230 kV Line Reconductor	Juniata - Cumberland 230 kV Line Rebuild to double circuit, Reconductor Cumberland-Williams Grove	Bull Run 230kV Capacitor	Bow Creek 500/230kV Project
Project Type	Upgrade	Upgrade	Upgrade	Upgrade	Greenfield
B/C Ratio Metric	Lower Voltage	Lower Voltage	Lower Voltage	Lower Voltage	Lower Voltage
In-Service Cost (\$M)	\$1.89	\$9.00	\$49.05	\$5.73	\$55.05
Cost Containment	No	Yes	No	No	Yes
In-Service Year	2022	2023	2024	2023	2025
% Cong Driver Mitigated*	0%	100%	100%	0%	95.85%
Shifted Cong	N/A	No significant shift	No significant shift	N/A	No significant shift
Base Case B/C Ratio	N/A	13.61	2.88	N/A	2.71
FSA Sens. B/C Ratio	N/A	21.01	3.40	N/A	2.60

* Note: Costs under review by PJM

5.0 PROPOSED SOLUTION

The Project as approved by PJM to resolve the identified congestion on the Juniata–Cumberland 230 kV Transmission Line involves replacing the 14.2 miles of existing conductor on the Juniata–Cumberland 230 kV Transmission Line with a high ampacity conductor. The existing 230 kV terminals at Juniata and Cumberland substations will remain the same. The existing towers will be re-used for the majority of the Project. Only one existing steel monopole tower will be replaced as explained in Attachment 2 – Engineering Description.

On June 24, 2022, PJM and PPL Electric executed a Designated Entity Agreement for PPL Electric to reconductor the Juniata–Cumberland 230 kV Transmission Line under Baseline number B3698. Pursuant to Schedule 6 of PJM's Amended and Restated Operating Agreement, and as stated in the Designated Entity Agreement, PPL Electric is required to complete the Project by December 31, 2023. A one-line diagram of the proposed 230 kV system is provided as Figure 1-3. A map of the proposed system alignment is provided as Figure 1-4.

Figure 1-1: Existing 230 kV One Line Diagram

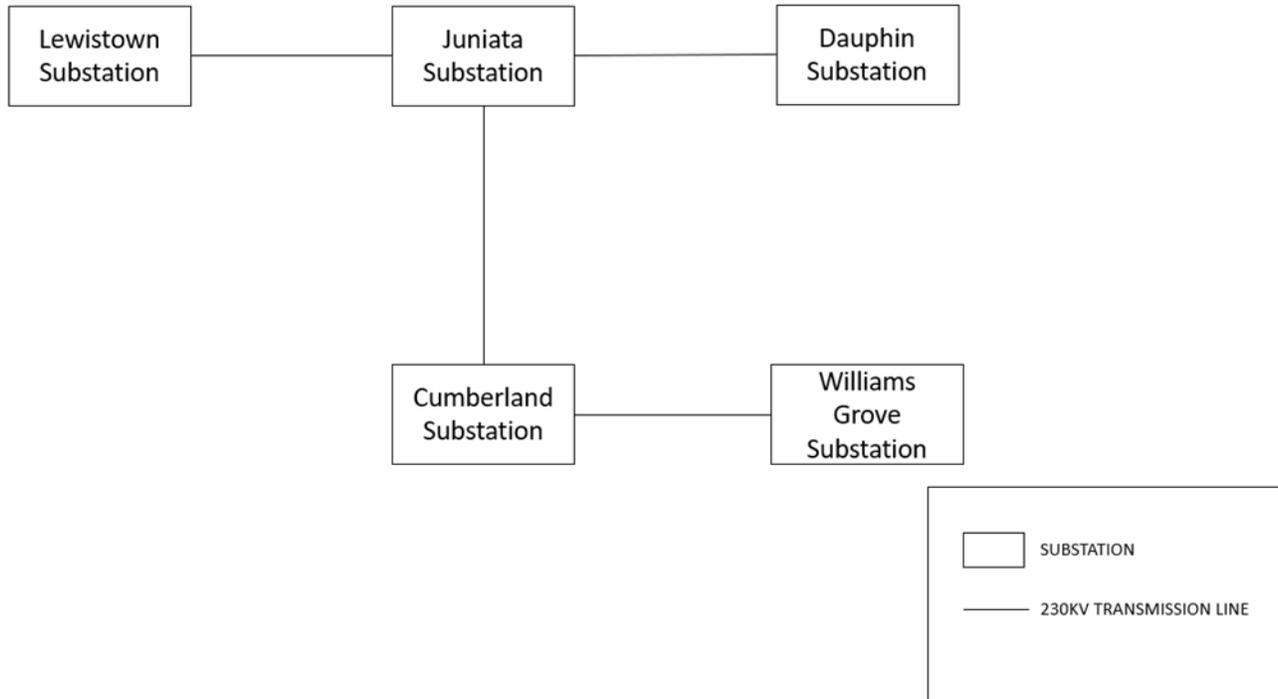


Figure 1-2: Existing System Map

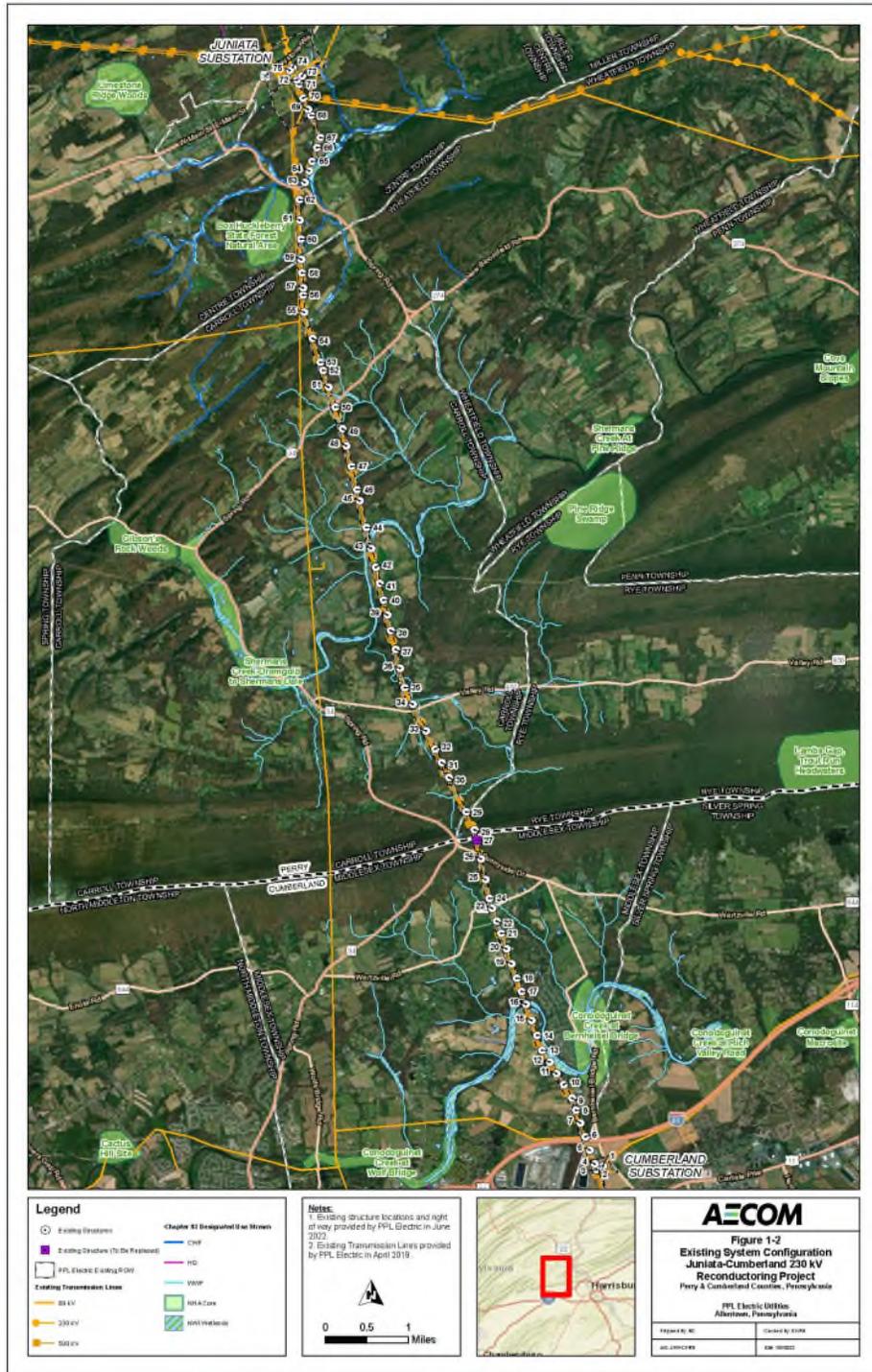


Figure 1-3: Proposed 230 kV and 69 kV One Line Diagram

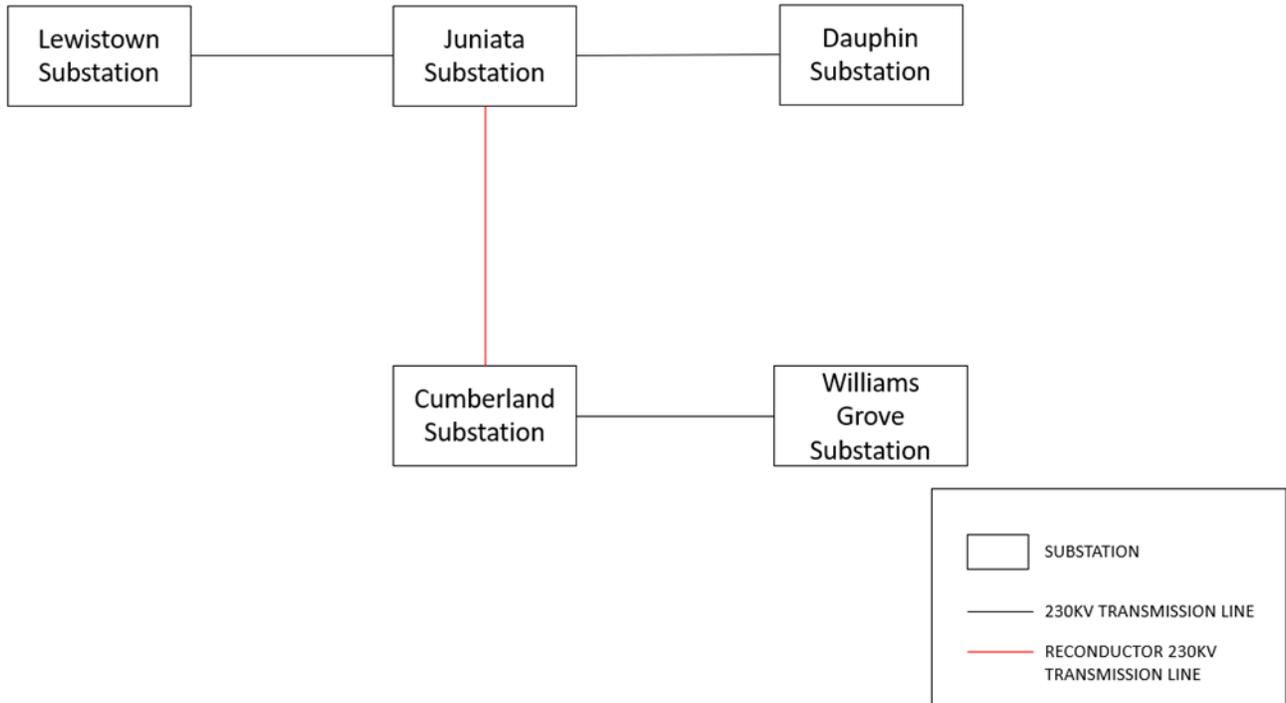
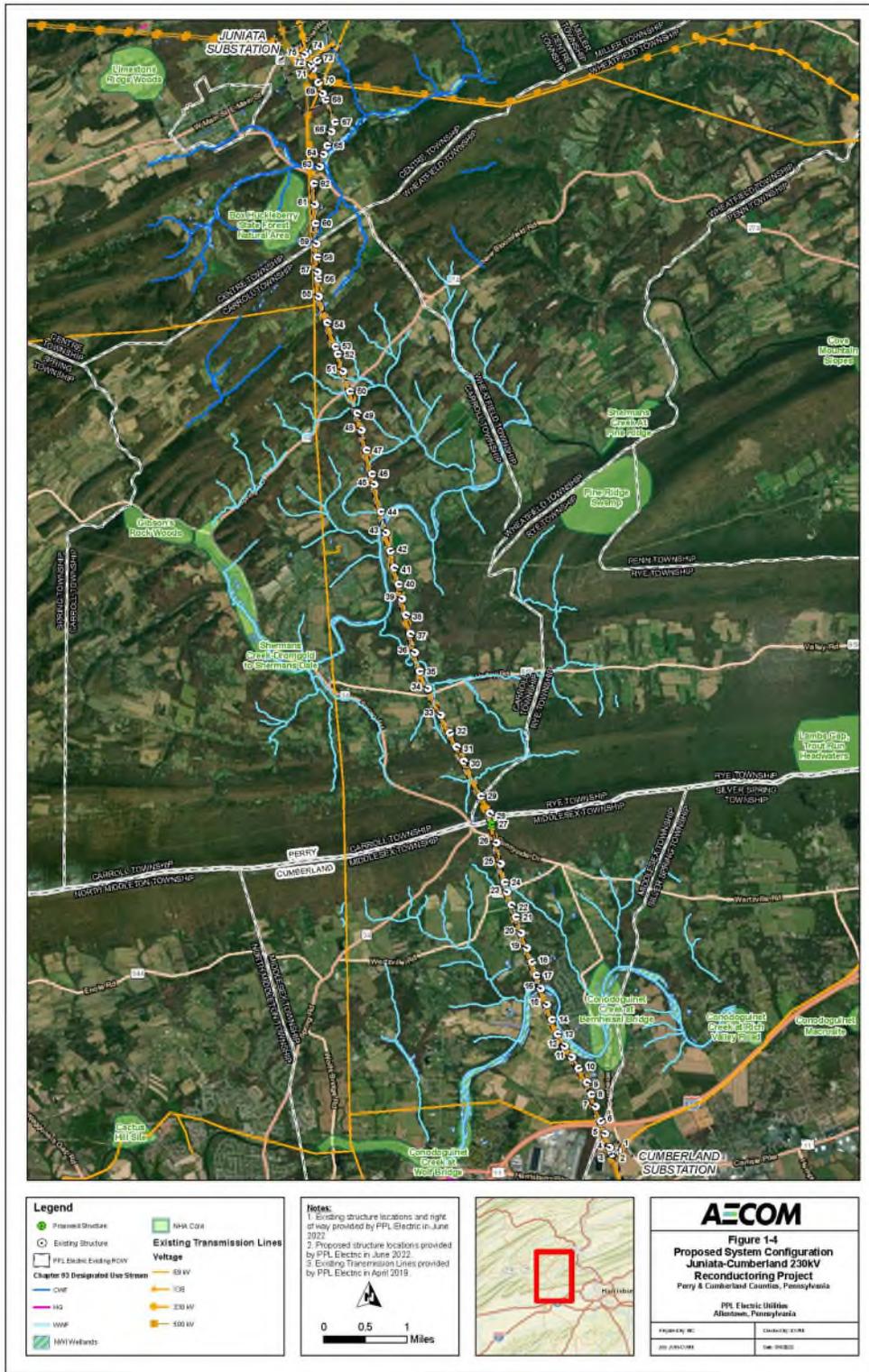


Figure 1-4: Proposed System Map



**PPL ELECTRIC
ATTACHMENT 2**

JUNIATA-CUMBERLAND 230 kV RECONDUCTOR PROJECT

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1.0 INTRODUCTION

As explained in **Attachment 1**, PPL Electric Utilities Corporation (“PPL Electric”) is requesting Pennsylvania Public Utility Commission (“PUC” or “the Commission”) approval to replace the existing conductor wires along the Juniata-Cumberland 230 kV Transmission Line that extends for 14.2 miles between the Juniata 500-230-69 kV Substation (“Juniata Substation”) in Perry County and the Cumberland 230-69 kV Substation (“Cumberland Substation”) in Cumberland County, Pennsylvania. The reconductor process will also involve the replacement of one 230 kV structure (the “Project”).

The proposed transmission line system will be designed according to, and generally exceed, all National Electrical Safety Code (“NESC”) standards. Design specifications and safety rules adhered to by PPL Electric are included as **Attachment 4**.

2.0 DESCRIPTION OF THE EXISTING AND PROPOSED LINES AND STRUCTURES

Connection between the Juniata Substation and Cumberland Substation involves a 14.2-mile-long section of the single-circuit Juniata-Cumberland 230 kV Transmission Line. The existing Juniata-Cumberland 230 kV Transmission Line contains three 1033 kcmil¹, 54/7 stranding, “Curlew” ACSR² conductor wires. The arrangement also includes one overhead ground wire (“OHGW”) and one optical overhead ground wire (“OPGW”) that will not be replaced. These conductor and ground wires are supported by a series of transmission line structures that include 69 single-circuit steel lattice tower structures and six single-circuit monopole structures. The monopole structures are located at the Juniata and Cumberland substations and are used to guide the 230 kV lines into the substations. Due to the additional sag of the new ACSS³ conductor, one of the single-circuit steel lattice tower structures (Structure 27) will be replaced as part of the Project to maintain

¹ A kcmil is a thousand circular mils. A circular mil is the cross-sectional area of a wire one mil in diameter, where 1 kcmil = 0.5067 mm².

² ACSR stands for aluminum conductor steel reinforced.

³ ACSS stands for aluminum conductor steel supported.

specific ground clearances for NESC compliance.⁴ A detailed map of the Project alignment is provided as **Figure 3-1 in Attachment 3**.

The existing single-circuit steel lattice tower structures range in height from between approximately 84.5 and 145 feet with an average structure height of approximately 109.5 feet. The proposed new structure at grid 17336-S-35096 (Structure 27) will have a height of 105 feet. **Table 2-1** provides a summary of the number and heights of the existing and proposed structures.

Table 2-1: Existing and New Transmission Line Structures

Transmission Line	No. of Existing Structures	Existing Structure Height Range (feet)	Proposed No. of New Structures	Proposed Structure Height (feet)	Applicable Framing/ Specifications
JUNIATA-CUMBERLAND 230 kV	75	84.5-145	1	105	7-009-040
Total	75		1		

Figure 2-1 depicts the typical structure that will be used to replace Structure 27 for the Juniata-Cumberland 230 kV Transmission Line. This structure will be constructed in generally the same location as the existing steel lattice tower. PPL Electric has designed the proposed transmission line system so that it fits entirely within the existing right-of-way (“ROW”).

The proposed Juniata-Cumberland 230 kV Transmission Line will consist of three 1272 kcmil, 39/19 stranding, “Pheasant” ACSS/TW⁵ conductors. The minimum conductor-to-ground clearance will be 22.5 feet, which occurs at the emergency maximum thermal conductor temperature of 250°C (482°F). The design minimum conductor clearances and conductor thermal ratings for the reconstructed lines are noted in **Tables 2-2 and 2-3**.

⁴ In addition, and in order to eliminate a future 230 kV outage, PPL Electric will replace two wood pole structures on the Juniata Substation property, concurrent with the reconductoring work involved in the Project. The replacement of these two structures is required independent of the Project as a part of PPL Electric’s wood pole replacement program. PPL Electric is replacing these structures concurrent with the Project to avoid the need for a second outage over this circuit to complete this work. The costs of replacing these two wood pole structures is not included in the Project cost.

⁵ ACSS/TW stands for Trapezoidal ACSS.

Table 2-2: Design for Minimum Conductor Clearance for 1272 kmil 39/19 Stranding ACSS/TW

Condition	Transmission Double-Circuit Design Clearance-to-Ground
Heavy Ice (1" ice at 0°C ambient temperature)	22.5'
Predicted Extreme Thermal Load (125°C conductor temperature)	PPL Electric is using ACSS Conductor. According to standard Max Temp is 250°C. Clearance-to-ground = 22.5'
Predicted Blowout (6 psf, 16°C ambient temperature)	22.5'

Table 2-3: Conductor Thermal Rating 1272 kmil 39/19 Stranding Pheasant ACSS/TW – 200°C Normal Maximum Conductor Temperature (250°C Emergency)

Condition	Ambient Temperature (°C)	Wind Speed (ft/sec)	Ampacity (Amps)
Summer Normal	35	0	1934
Winter Normal	10	0	2069
Summer Emergency	35	2.533	2574
Winter Emergency	10	2.533	2683

**PPL ELECTRIC
ATTACHMENT 3**

JUNIATA-CUMBERLAND 230 kV RECONDUCTORING PROJECT

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1.0 INTRODUCTION

PPL Electric Utilities Corporation (“PPL Electric”) is requesting Pennsylvania Public Utility Commission (“PUC” or “the Commission”) approval to replace the existing conductor wires along the Juniata-Cumberland 230 kV Transmission Line that extends for 14.2 miles between the Juniata 500-230-69 kV Substation (“Juniata Substation”) in Perry County, Pennsylvania and the Cumberland 230-69 kV Substation (“Cumberland Substation”) in Cumberland County, Pennsylvania. The reconductor process will also involve the replacement of one 230 kV structure (the “Project”).

The Juniata-Cumberland 230 kV Transmission Line shares right-of-way (“ROW”) with the existing Juniata-Three Mile Island 500 kV and the Juniata-Cumberland #2 69 kV transmission lines which parallel Juniata-Cumberland 230 kV Transmission Line for most of the alignment. This reconductoring Project will occur on the same structure alignment and on the existing structures, except for the structures that will be replaced that are identified and described in Attachment 2. All structures will be located on the same PPL Electric fee-owned properties and in the same ROW as existing structures. PPL Electric maintains easements for ROW across all the private parcels crossed along the 14.2 mile alignment except for one parcel (PIN 183.00-002.001), which is located between Structures 28 and 29. The existing PPL Electric-fee-owned properties and ROW vary in width from 150 feet to 325 feet wide. The Project will require the replacement of one existing structure, as detailed in Attachment 2,¹ that will be constructed entirely within the existing transmission line ROW and in close proximity (within 20 foot) to the existing structure. A network of existing access roads or temporary roads will be utilized during construction of the new pole foundations and reconductoring of the transmission line. Detailed maps of the proposed Project are provided in **Figure 3-1**.

From the Juniata Substation, the entire Project generally travels in a southeasterly direction across predominantly forested and agricultural lands as it extends into the Cumberland Substation as shown in **Figure 3-1**. The ROW for the Project is further described below:

¹ As explained in Attachment 2, two additional wooden pole structures located at the Juniata Substation will be replaced concurrent with the reconductoring required by the Project.

- Starting at Structure 75 at the Juniata Substation, the Project will extend southeast and then southwest approximately 1.8 miles (9,557 feet) to Structure 62 (Sheets 1 to 3, Structures 75 to 62 in **Figure 3-1**). This section spans State Route 34 and Trout Run and is a mix of agricultural, developed and forested land uses. No structures will be replaced along this segment. This section only involves the reconductoring of the existing single-circuit transmission line.
- From Structure 62, the Project turns south-southeast and extends 7.9 miles (41,872 feet) over State Route 34, Shermans Creek, Fishing Run, and State Route 850 until it climbs to the top of a ridge near Structure 29 (Sheet 3 to 14, Structures 62 to 29 in **Figure 3-1**). No structures will be replaced along this segment. This section will only involve the reconductoring of the existing single-circuit transmission line.
- On the south-side of the mountain from Structure 28, the Project continues southeast for 4.5 miles (23,455 feet) over State Route 944, Conodoguinet Creek, and Interstate 81 until it reaches the Cumberland Substation at Structure 1 (Sheets 14 to 20, Structures 28 to 1 in **Figure 3-1**). This section involves one steel lattice structure that will be replaced with one steel H-frame suspension structure (7-009-040). This structure will be located entirely on ROW maintained by PPL Electric. The segment will also involve the reconductoring of the existing single-circuit transmission line.

2.0 LAND USE

PPL Electric evaluated the existing land uses on the PPL Electric owned properties, within the existing ROW, and within 0.25 mile (1,320 feet) of the ROW (“Project Area”). This broader Project Area was reviewed to provide a sense of the landscape in which the Project is located. Based on review of the 2019 National Land Cover Data (“NLCD”), the Project Area consists of 50% forest, 35% agriculture and the remaining 15% comprised of developed land uses including residential, commercial/industrial, and transportation areas.

The Project does not cross any railroads. Five gas pipelines are crossed by the Project. Four Texas Eastern pipelines cross the Project just south of Sherman Creek near the town of Shermans Dale and are contained within the same 150 foot wide ROW. The one other pipeline is owned by the

TE Products Pipeline Company and is located north of State Route 944 near Wertzville. The Project also crosses other PPL Electric electrical utility ROW's adjacent to the Juniata and Cumberland Substations.

The closest active airports relative to the Project Area are the Carlisle Airport, which is located approximately 5 miles south of the Cumberland Substation and the Capital City Airport, which is approximately 13 miles southeast of the Cumberland Substation near Harrisburg. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities. However, PPL Electric will comply with any applicable requirements of the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

Conserved Lands

The proposed Project will not affect any national parks, state parks, local parks, recreational areas, or natural landmarks. The Project crosses a series of federal easement properties that are associated with a section of the Appalachian National Scenic Trail west of Bernheisel Bridge Road near the Cumberland Substation. Stony Ridge local park is also adjacent to the Cumberland Substation on the east side of Bernheisel Bridge Road and Valley Road Park is directly adjacent to the project ROW north of State Road 850 near Shermans Dale. In addition, the project crosses a Cumberland County agricultural easement which is adjacent to the Cumberland Substation. None of the conserved properties mentioned above will be impacted by the Project.

3.0 CULTURAL RESOURCES

An online review of the Project Area and surrounding landscape was conducted through the Pennsylvania Historical and Museum Commission ("PHMC") State Historic and Archaeological Resource Exchange site. Four State Historic Preservation Office ("SHPO") eligible structures and districts that were found within or close to the Project Area. The New Bloomfield Historic District is located along State Roads 34 and 274 and is approximately 1 mile southwest of the Juniata Substation. The Zeigler Bridge is an eligible aboveground resource located off of State Road 944 and is 0.5 miles from the Project Area. The Appalachian National Scenic Trail is an eligible historic

district that crosses the Project for roughly a 1 mile stretch near the Cumberland Substation. Lastly, the Cumberland Valley Railroad is an eligible district located south of the Cumberland Substation and U.S. Route 11.

The Appalachian National Scenic Trail historic district is the only historic resource that crosses the Project. PPL Electric is in the initial stage of coordination with the PHMC for the modifications being made to the transmission lines. This coordination will be required to receive permits to construct the Project and will be conducted in the near future. PPL Electric does not anticipate any impacts to SHPO listed or eligible structures or districts. PPL Electric will perform any reviews and field survey/sampling work required by the PHMC to avoid, minimize, and mitigate impacts to archaeological or historic architectural resources that may be located within the Project Area.

4.0 NATURAL FEATURES

Unique Natural Features

No unique geological, scenic, or natural areas are located within the Project Area, according to the Pennsylvania Department of Conservation and Natural Resources (“PDCNR”).

Soils

The Project Area crosses a series of ridges with some major topography changes mostly in the northern (Perry County) portion of the Project. Topography in this area ranges from approximately 400 feet above sea level (“abs”) to approximately 1,140 feet at the Blue Mountain crossing south of Shermans Dale. In Cumberland County from north to south the elevation severely drops down the south side of the mountain and levels out. From the base of the mountain to the Cumberland Substation the elevation ranges from 490 feet abs to 390 feet abs. Soils present within the Project Area consist of mainly silt loams with small pockets of sandy loams, channery loams, and clay loams.

Erosion and Sedimentation (“E&S”) control plans will be developed and implemented for the Project to minimize the displacement of soils. These plans will require prior approval from the

local county conservation districts. National Pollutant Discharge Elimination System (“NPDES”) permits will also be required from the Pennsylvania Department of Environmental Protection (“PADEP”) as needed. During construction, PPL Electric will adhere to all conditions specified in the NPDES permit. Impacts to local soil resources are anticipated to be minimal.

Waterways

The existing transmission line spans several National Hydrography Dataset waterways that will remain in place after the Project construction activities have occurred. Review of the United States Geological Survey (“USGS”) mapping website indicated that the Project will aerially span four named streams: Fishing Run, Shermans Creek, Trout Run and Conodoguinet Creek. The Project Area is located within the Little Juniata Creek watershed (USGS Hydrologic Unit Code (“HUC”) 020503051001), the Lower Sherman Creek watershed (HUC 020503050107), the Simmons Creek-Conodoguinet Creek watershed (HUC 020503050406), and the Letort Spring Run watershed (HUC 020503050404). All of these watersheds generally flow east toward the Susquehanna River.

The streams in the Project Area have a PADEP Chapter 93 Designated Use Stream Classification of either Warm Water Fishes (“WWF”) or Cold Water Fisheries (“CWF”). Trout Run is listed as a CWF and Fishing Run, Shermans Creek and Conodoguinet Creek have a designated use of WWF. All streams that cross the Project are recognized as Migratory Fish (“MF”) waters. No direct impact to these stream features is anticipated by the Project activities.

An E&S control plan will be developed to address stormwater control in all watershed areas crossed by the Project. PPL Electric will obtain all approvals and permits necessary for the construction of the Project and will comply with any conditions placed on those permits.

Wetlands

Based on review of the U.S. Fish and Wildlife Service’s (“USFWS”) National Wetlands Inventory (“NWI”), the Project crosses two palustrine, unconsolidated bottom, excavated (PUBHh) freshwater ponds and two palustrine emergent (PEM1A and PEM1C) freshwater wetlands. No impacts to these NWI features are anticipated by the proposed Project activities.

The NWI only provides a general overview of the potential wetlands that may be located within an area. For federal and state permitting purposes, the wetlands and waterways within the Project have been delineated, surveyed, and illustrated according to regulatory standards. This information is being used to minimize wetland and waterway impacts where feasible. Additionally, PPL Electric will avoid impacts to wetlands and waterways where possible by aerially spanning these features.

100-year Floodplains

The National Flood Hazard Layer for Perry and Cumberland Counties, Pennsylvania was obtained through the Federal Emergency Management Agency (“FEMA”) Flood Map Service Center website and analyzed for 100-year floodplains within the Project Area and surrounding landscape. Based on review of this data, in Perry County the Project spans the FEMA 100-year floodplain of Trout Run, Shermans Creek, two unnamed tributaries (“UNT”) of Shermans Creek, Fishing Creek, and an adjacent UNT to Fishing Creek. All Special Flood Hazard Areas (“SFHA”) spanned by the Project in Perry County are designated as Zone A. No impacts to these floodplain areas are anticipated by the proposed Project activities.

In Cumberland County, the Project spans the FEMA floodway and 100-year floodplain of Conodoguinet Creek and one UNT of Conodoguinet Creek. All SFHA spanned by the Project in Cumberland County are designated as Zone AE. No impacts to the floodways and floodplains spanned by the project are anticipated by the proposed Project activities.

Vegetation

Vegetative cover in the Project Area consists of a mix of forest, agricultural use, and developed areas. The existing ROW areas for the transmission line have previously been cleared of woody vegetation and no extensive tree clearing is anticipated on the line. If vegetation management is required in this specific location, PPL Electric will apply its “Specifications for Transmission Vegetation Management LA-79827” to minimize potential impacts.

5.0 **THREATENED AND ENDANGERED SPECIES**

Natural Areas Inventory

Based on review of the *Natural Areas Inventory of Perry County, Pennsylvania*, published by The Nature Conservancy in 2005, the Project does not extend through any Pennsylvania Natural Heritage Program identified natural areas in Perry County. The Box Huckleberry Natural Area is directly adjacent to the Project approximately one mile south of the Juniata Substation. This Natural Area consists of an oak forest that contains the threatened box huckleberry (*Gaylussacia brachycera*) shrub species. This Natural Area is part of Tuscarora State Forest and is protected by PADCNR.

The *Natural Areas Inventory of Cumberland, Pennsylvania*, published by The Nature Conservancy in 2005, indicates that no Pennsylvania Natural Heritage Program areas are crossed by the Project in Cumberland County. The Conodoguinet Creek at Bernheisel Bridge Natural Area is adjacent to the Project approximately one mile north of the Cumberland Substation. The natural area consists of floodplain along Conodoguinet Creek that is made up of old fields that contains several plant species of concern along the Appalachian Trail National Historic Corridor.

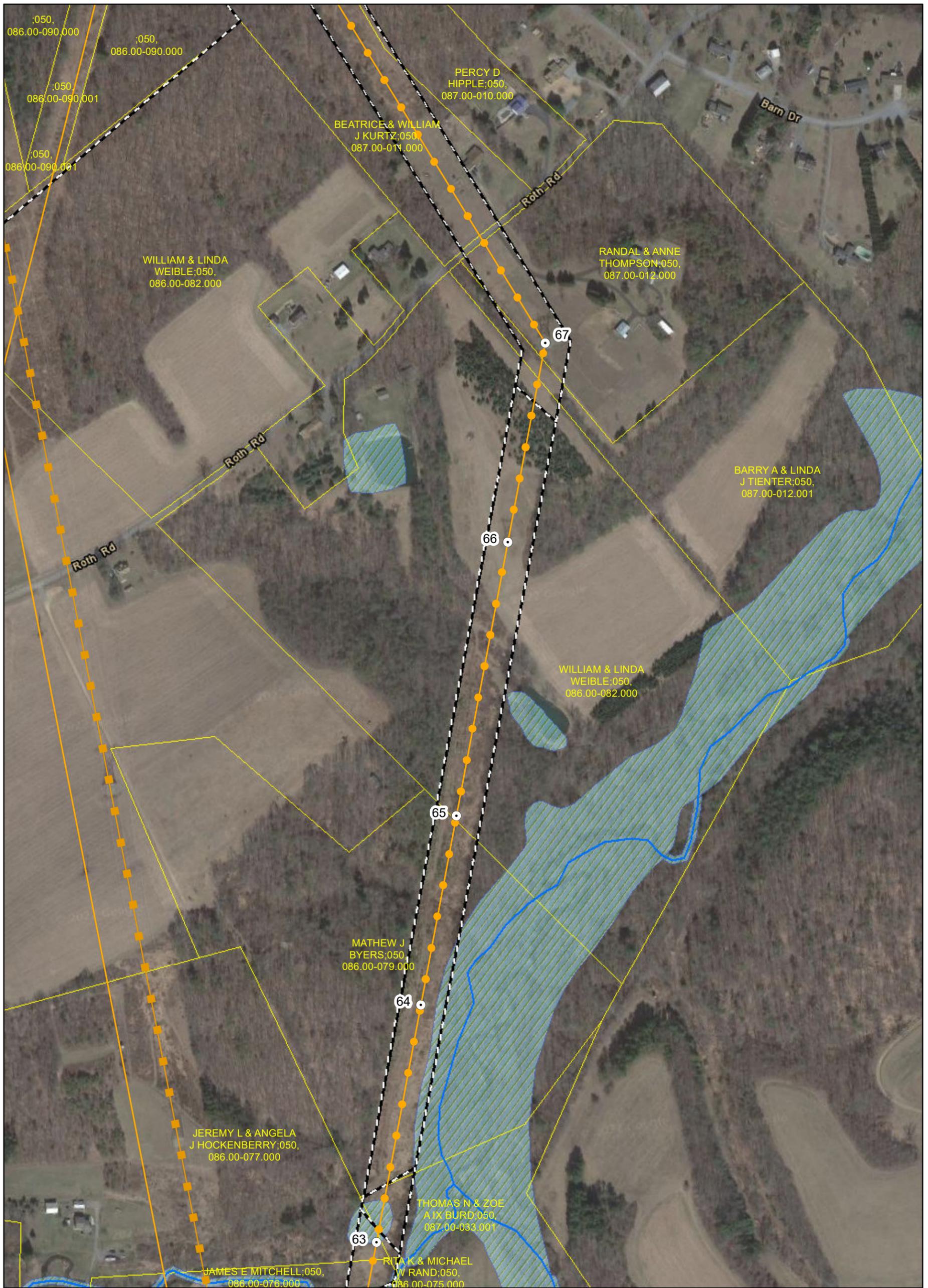
Threatened and Endangered Species

A Pennsylvania Natural Diversity Inventory (“PNDI”) review was completed on September 30, 2022, to assess the potential presence of threatened and endangered species and/or special concern species in the Project area. Specific agencies reviewing the Project through the PNDI process include the following:

- Pennsylvania Game Commission,
- Pennsylvania Fish and Boat Commission,
- PDCNR, and
- USFWS.

The PNDI process concluded that no threatened and endangered species are located in or near the Project area.

Figure 3-1: Aerial Map of the Project



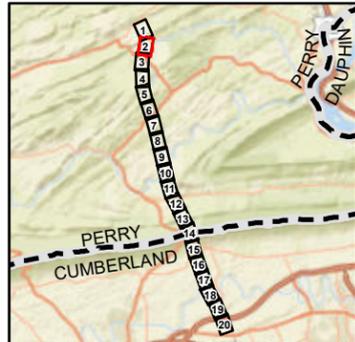
Legend

Existing Structure	Existing Transmission Lines
PPL Electric ROW	69 kV
Chapter 93 Designated Use Stream	230 kV
CWF	500 kV
NWI Wetlands	Parcel Boundary

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

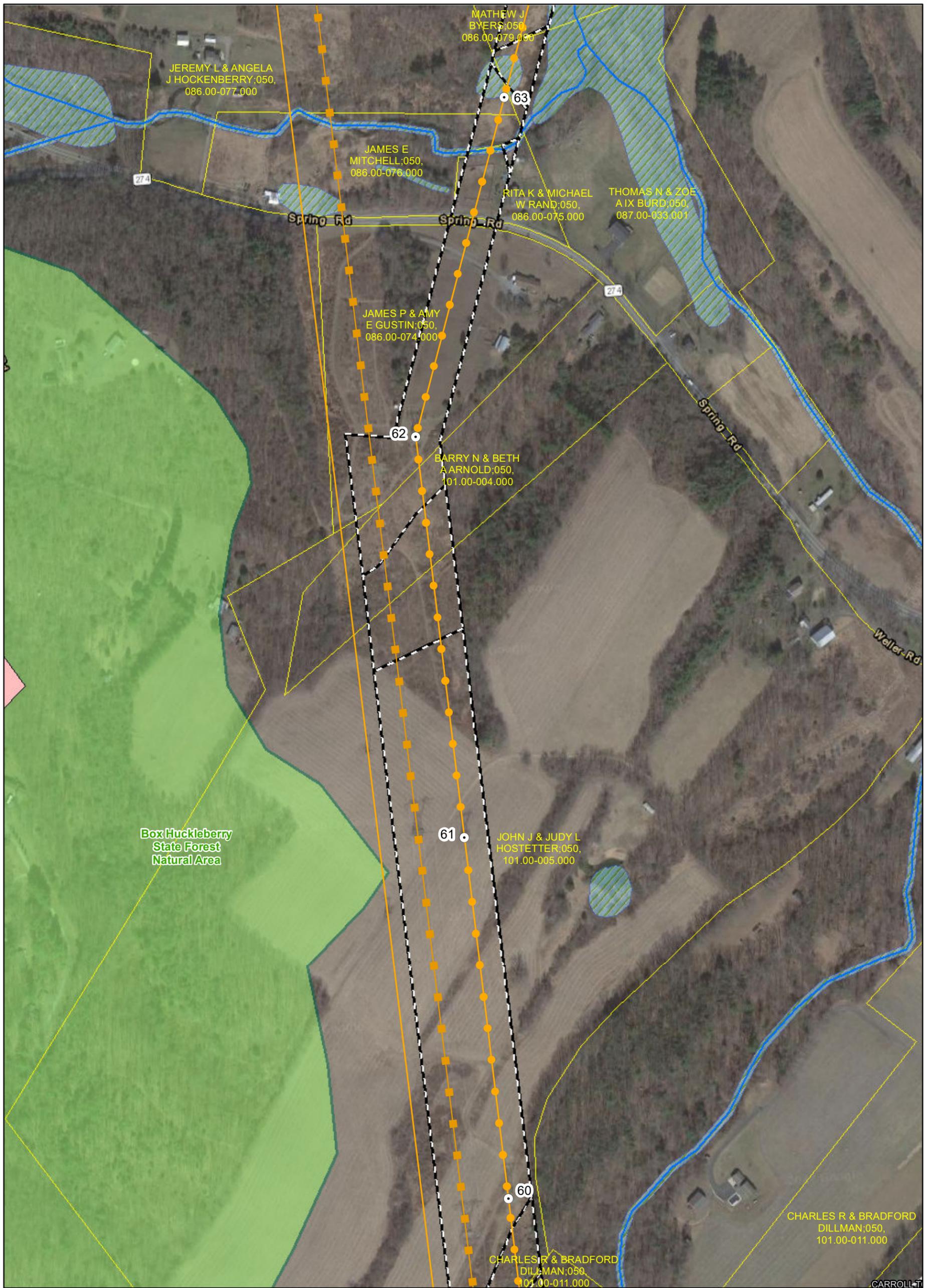
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Feet



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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 2 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



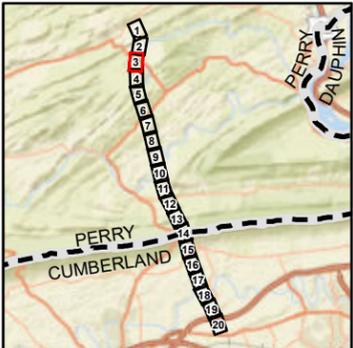
Legend

Existing Structure	Existing Transmission Lines
PPL Electric ROW	69 kV
Chapter 93 Designated Use Stream	230 kV
CWF	500 kV
NWI Wetlands	Parcel Boundary
NHA Core	State Forest Land

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

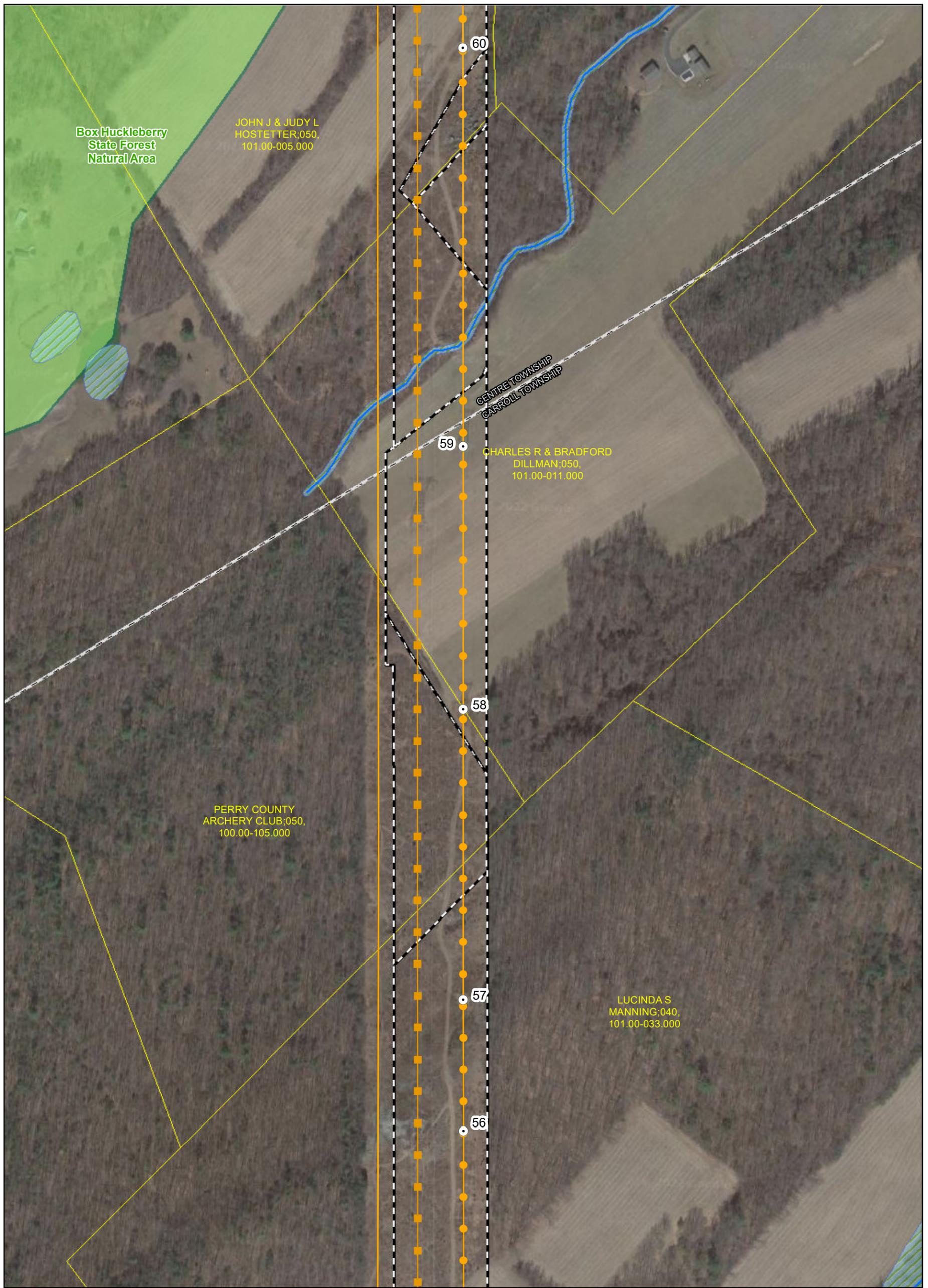
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconducing Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 3 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



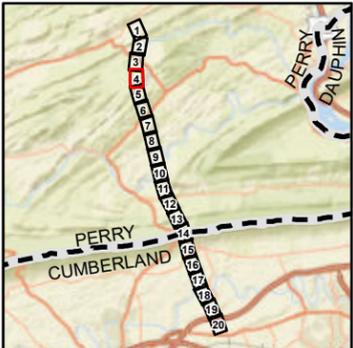
Legend

Existing Structure	Existing Transmission Lines
PPL Electric ROW	69 kV
Chapter 93 Designated Use Stream	230 kV
CWF	500 kV
NWI Wetlands	Parcel Boundary
NHA Core	

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

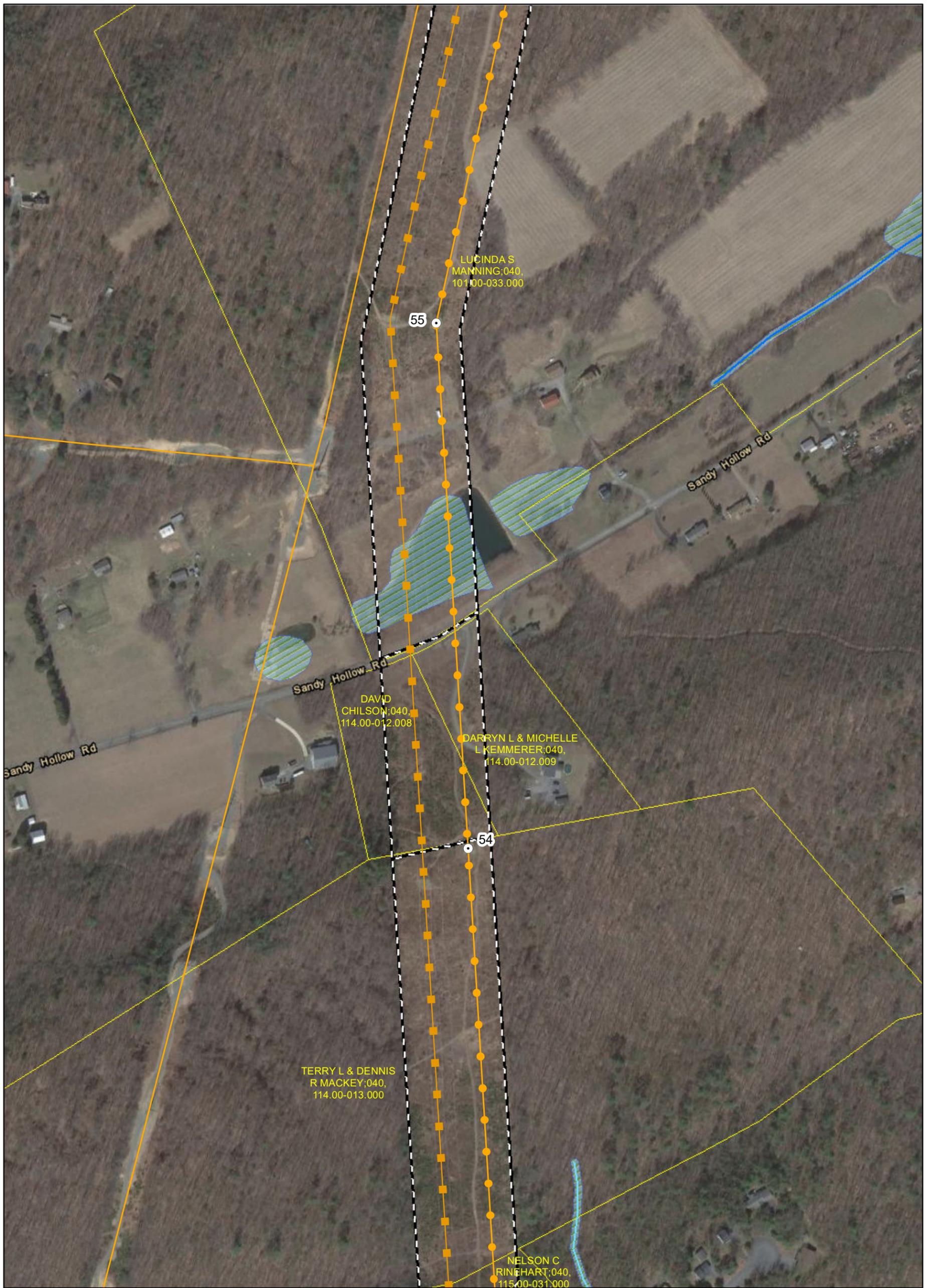
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 4 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



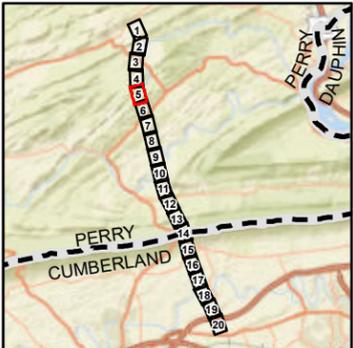
Legend

Existing Structure	Existing Transmission Lines
PPL Electric ROW	69 kV
Chapter 93 Designated Use Stream	230 kV
CWF	500 kV
WWF	Parcel Boundary
NWI Wetlands	

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

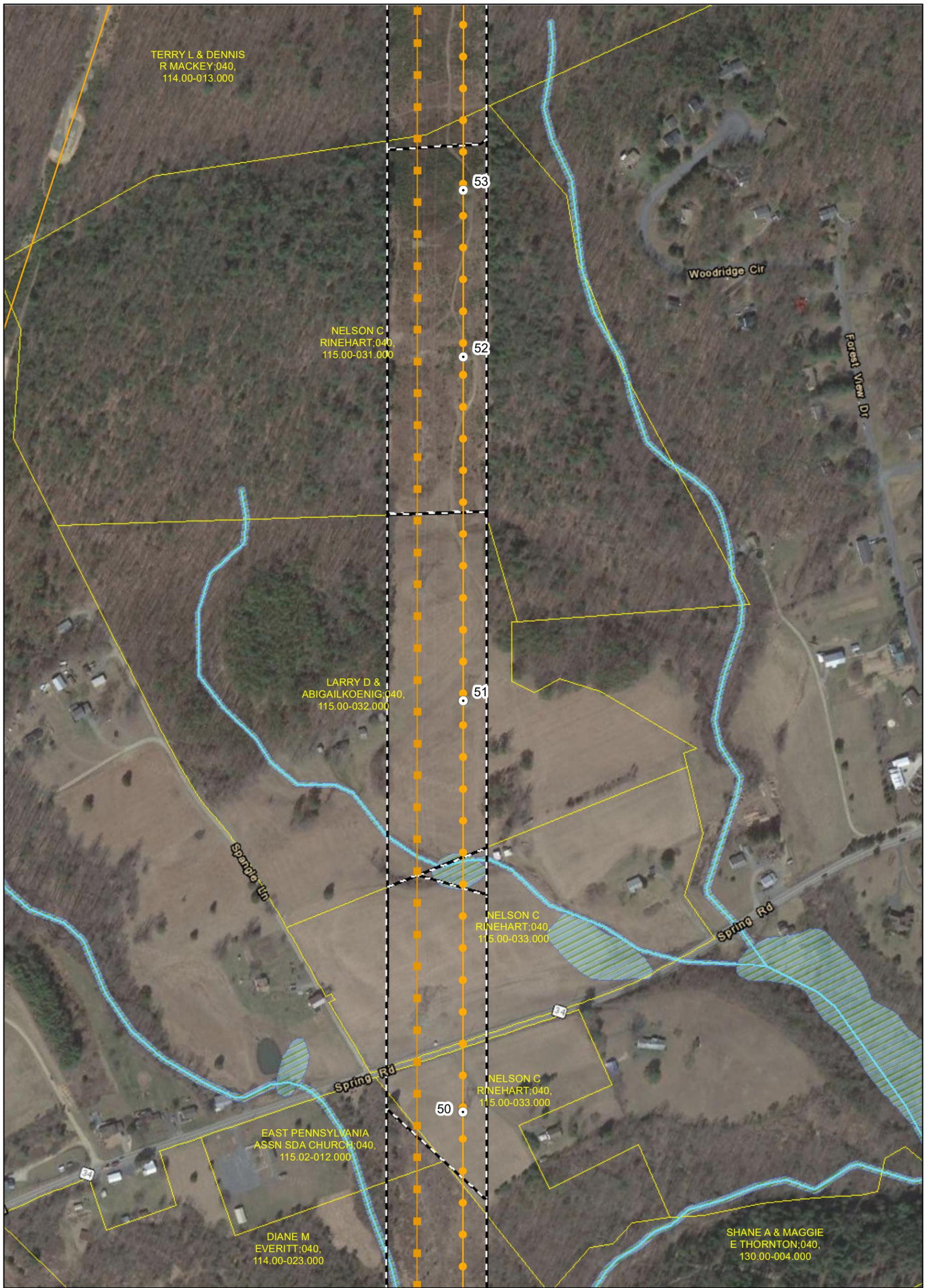
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 5 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



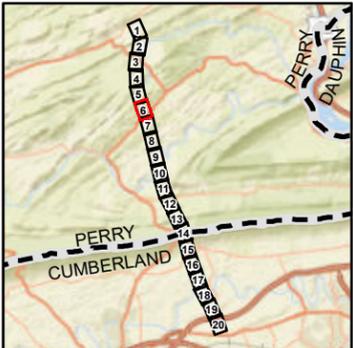
Legend

Existing Structure	Existing Transmission Lines
PPL Electric ROW	69 kV
Chapter 93 Designated Use Stream	230 kV
WWF	500 kV
NWI Wetlands	Parcel Boundary

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

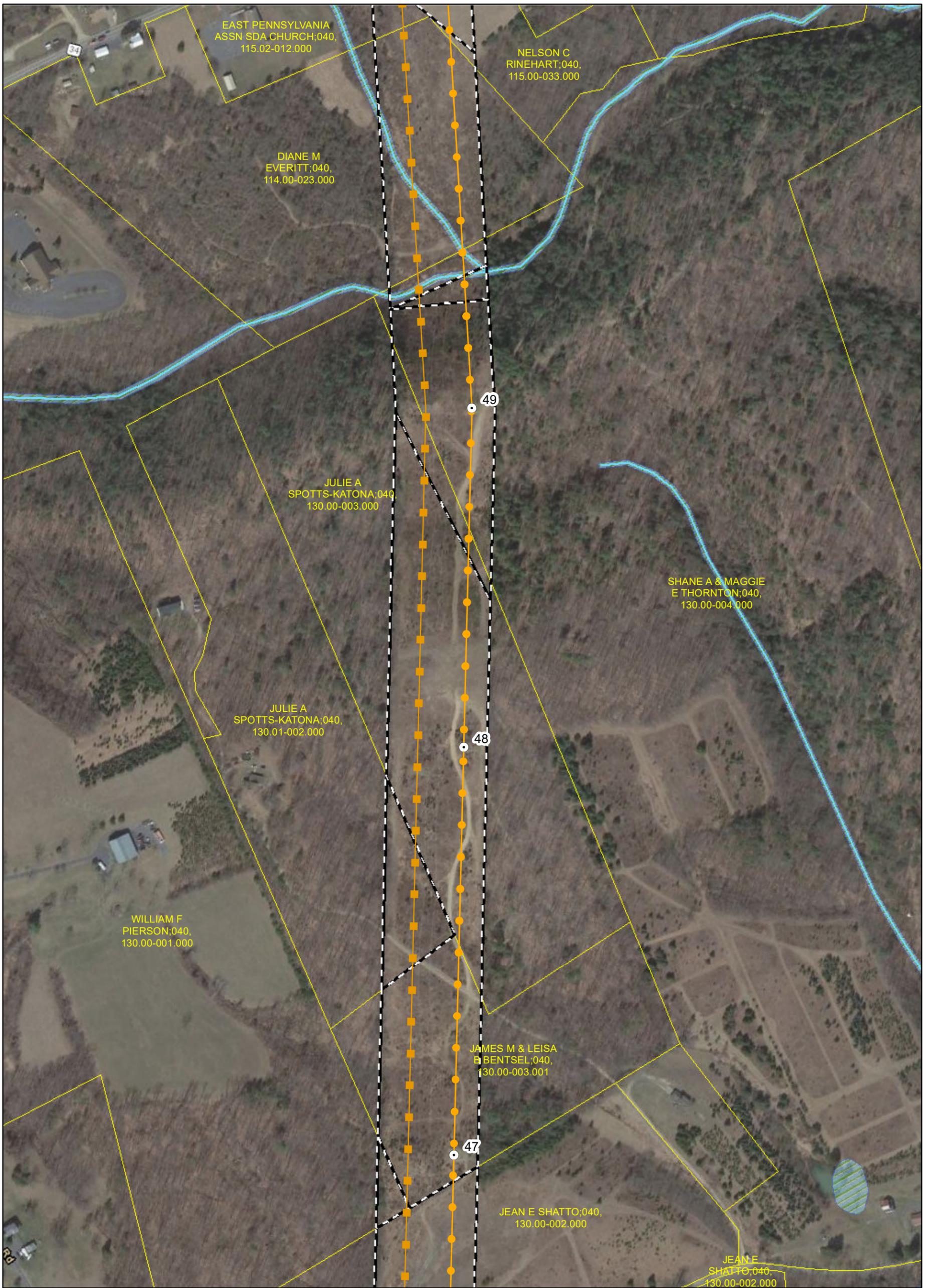
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 6 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

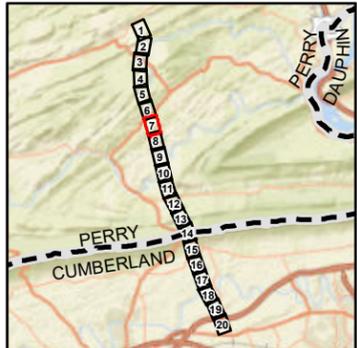
Existing Transmission Lines

- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

0 150 300
 Feet



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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 7 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

Existing Transmission Lines

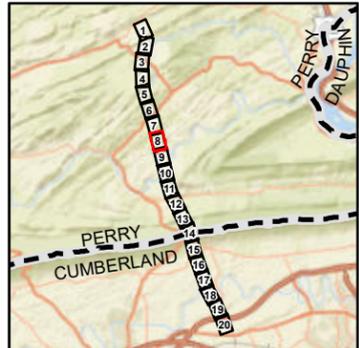
- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

N

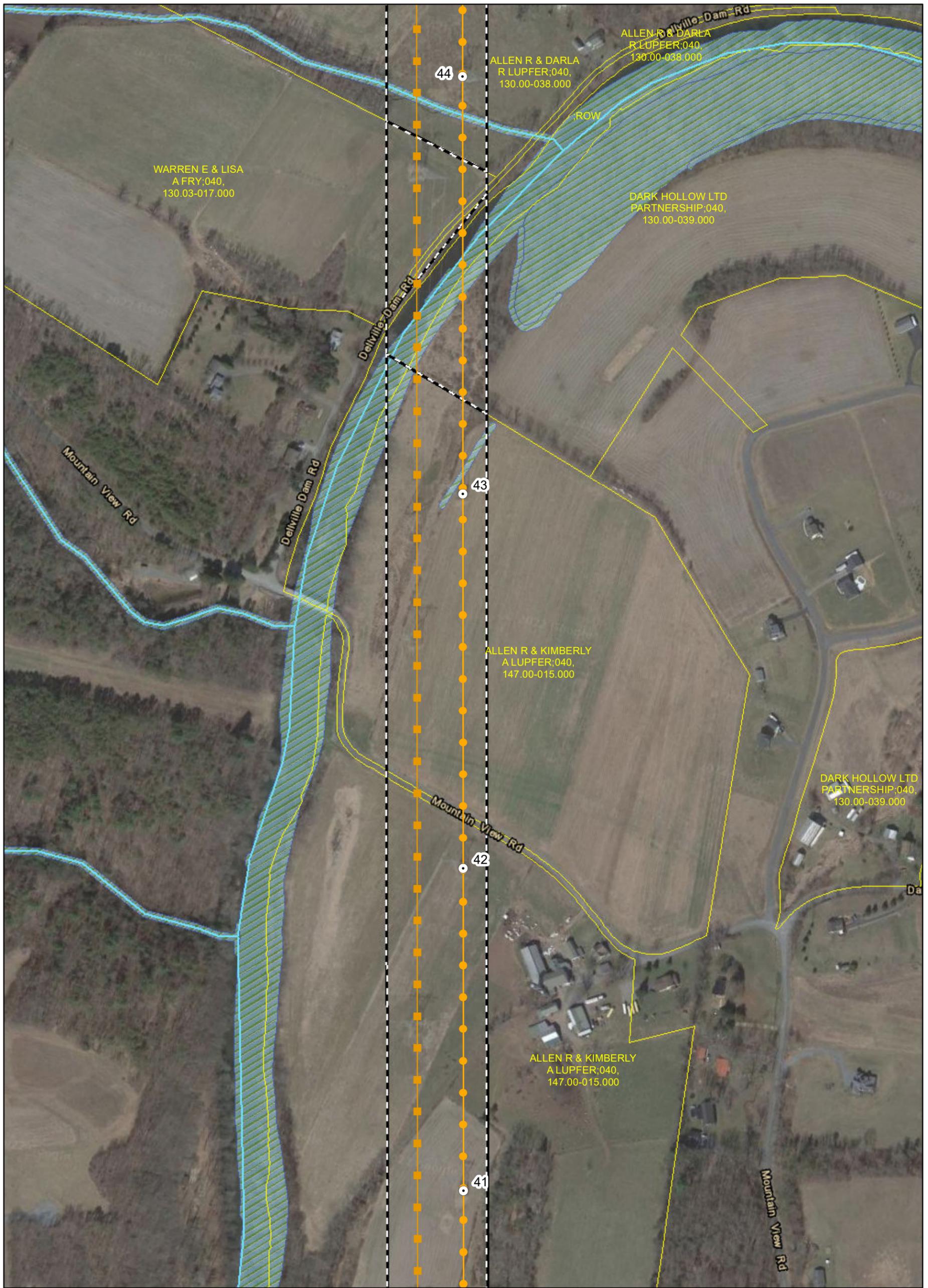
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 8 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



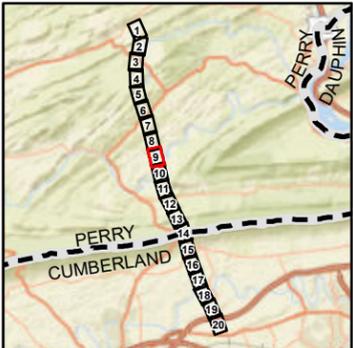
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Existing Structure	Existing Transmission Lines
PPL Electric ROW	230 kV
Chapter 93 Designated Use Stream	500 kV
WWF	Parcel Boundary
NWI Wetlands	

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

0 150 300
Feet



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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 9 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

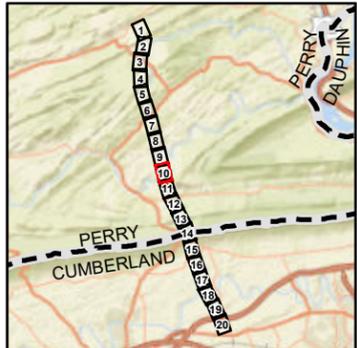
Existing Transmission Lines

- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

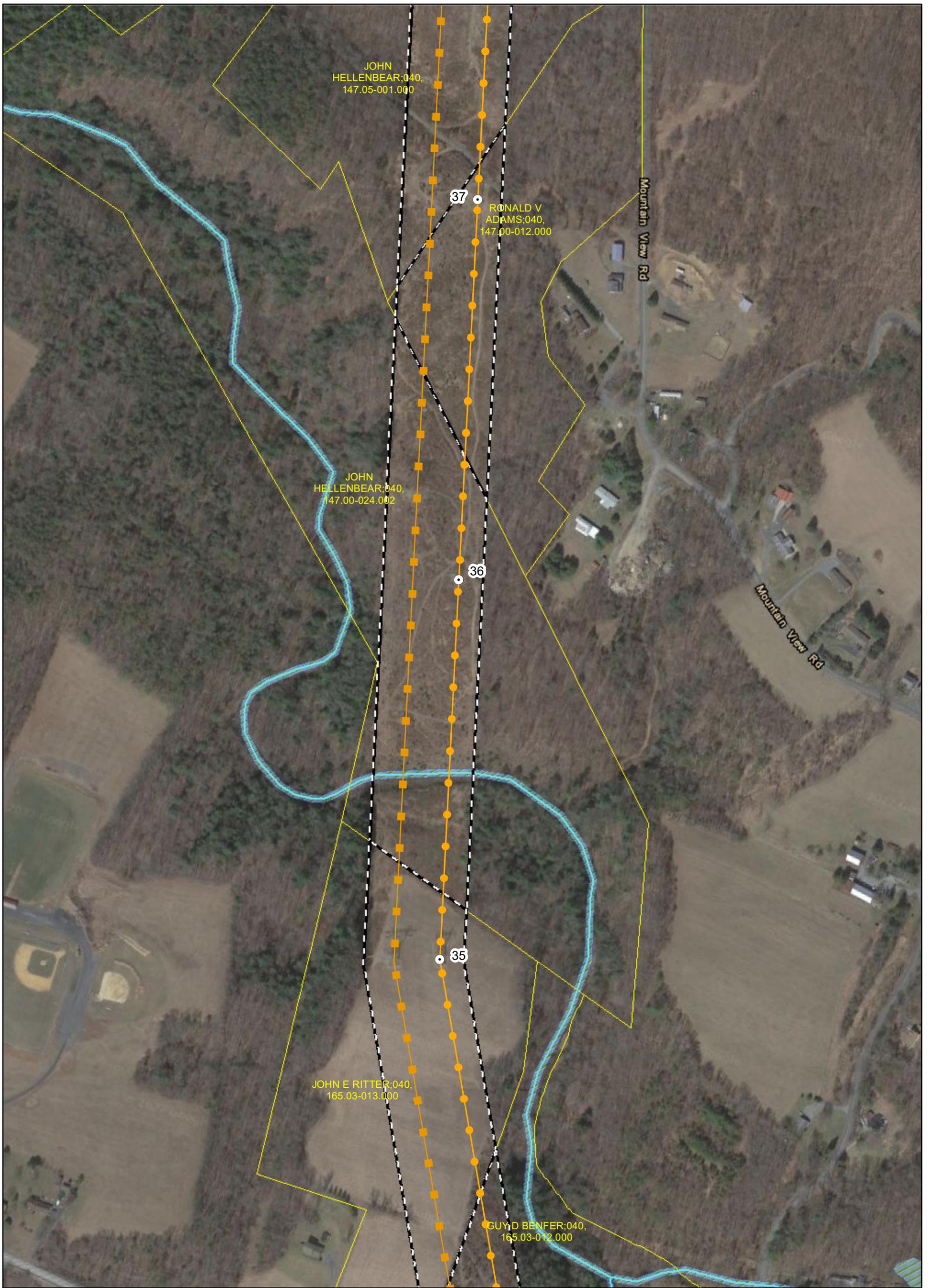
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 10 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

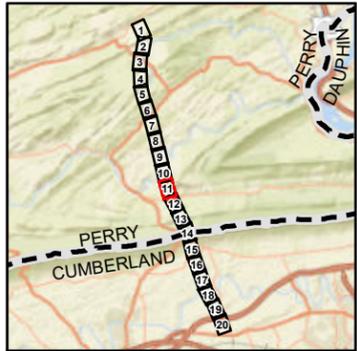
Existing Transmission Lines

- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

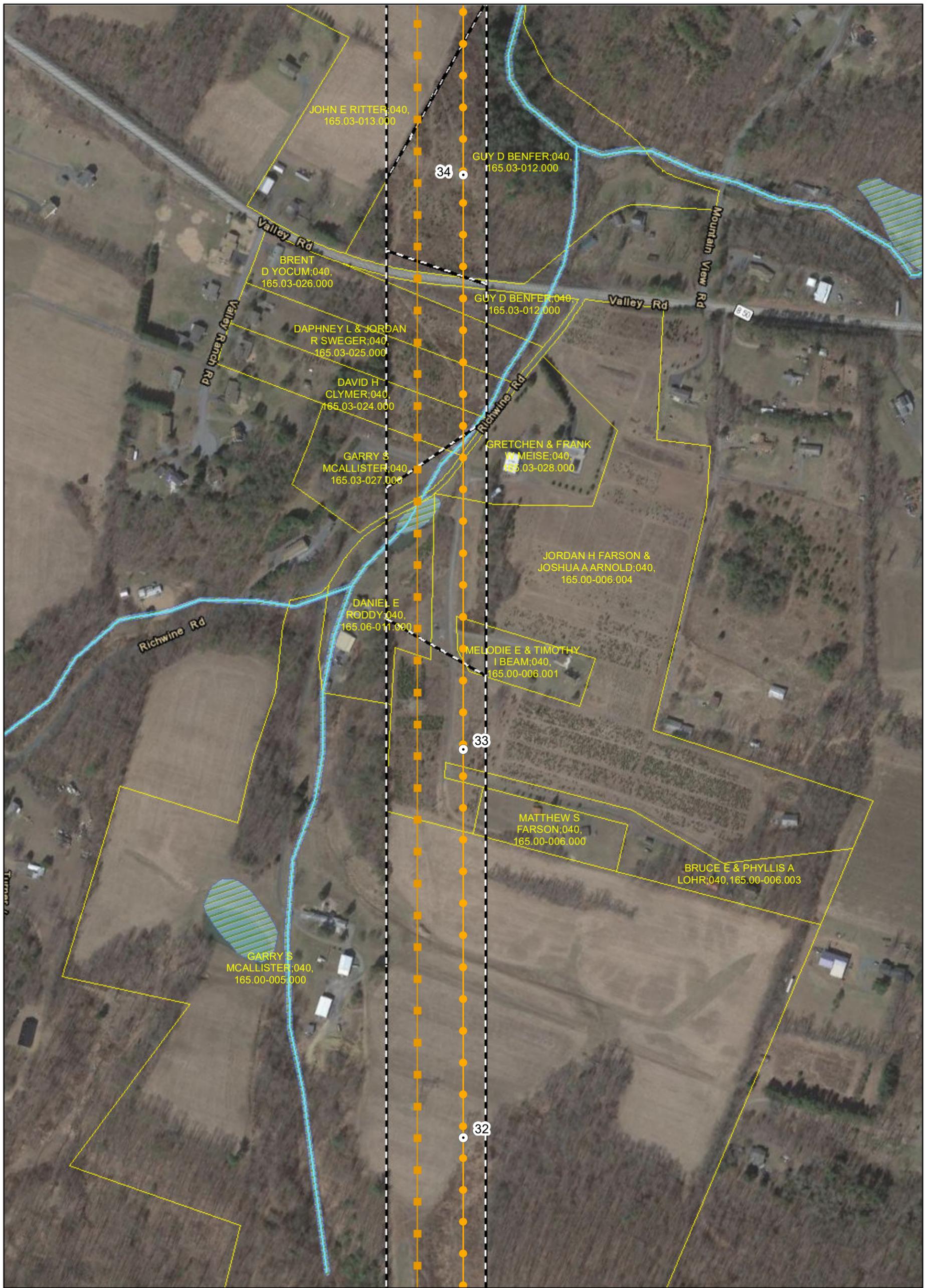
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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 11 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



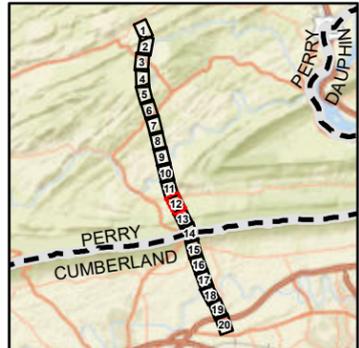
Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream**
- WWF
- NWI Wetlands
- Existing Transmission Lines**
- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

0 150 300
 Feet



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Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 12 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

Existing Transmission Lines

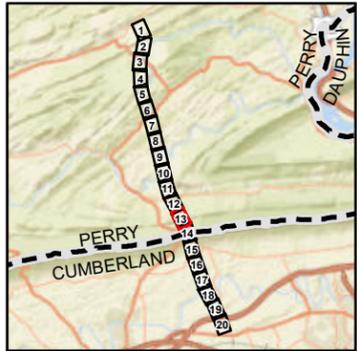
- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

N

0 150 300 Feet



AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 13 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Proposed Structure
- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

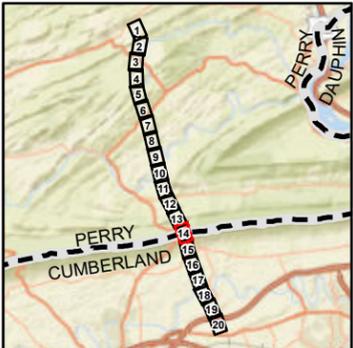
Existing Transmission Lines

- 230 kV
- 500 kV
- Parcel Boundary

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

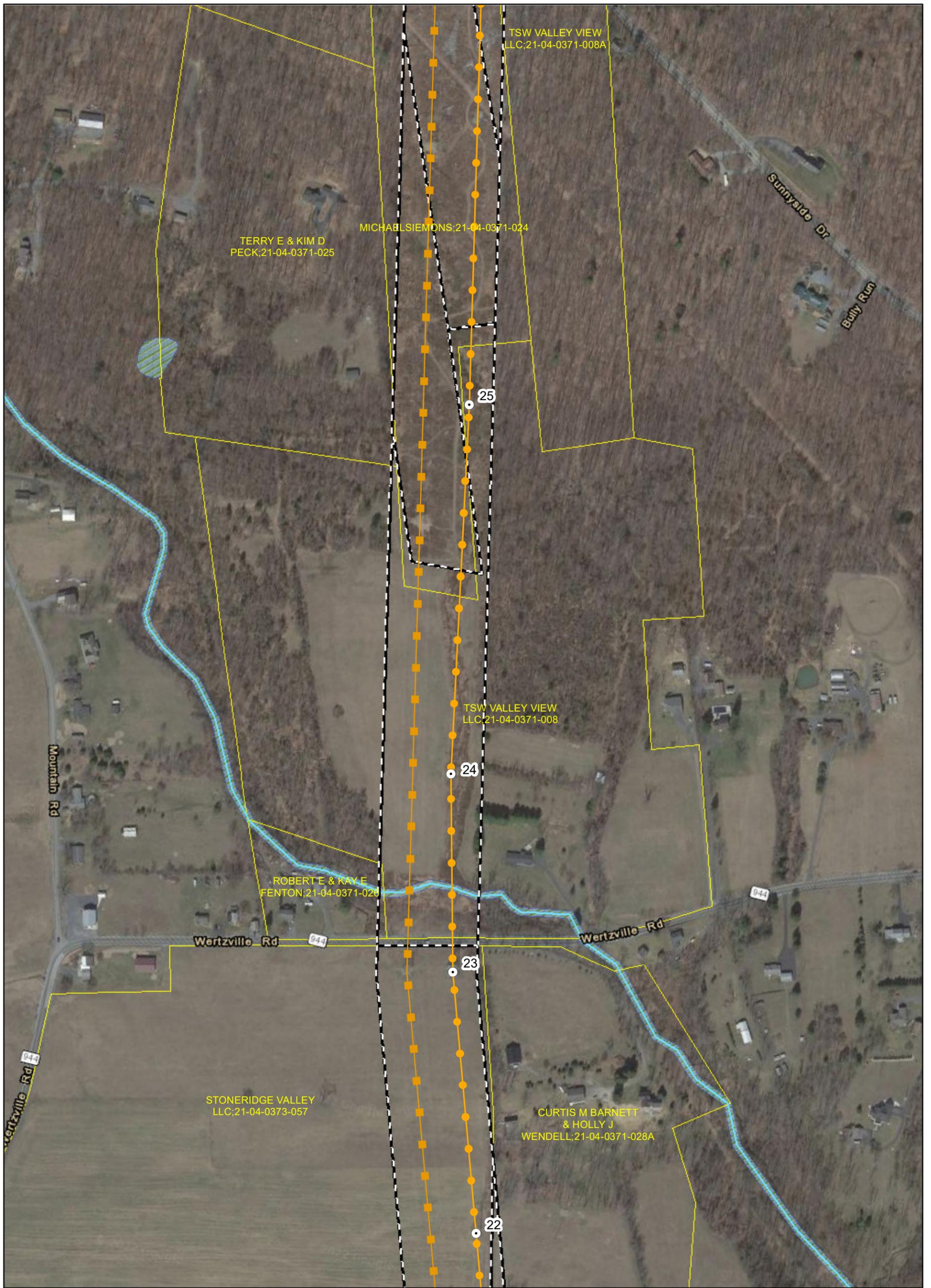
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AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 14 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

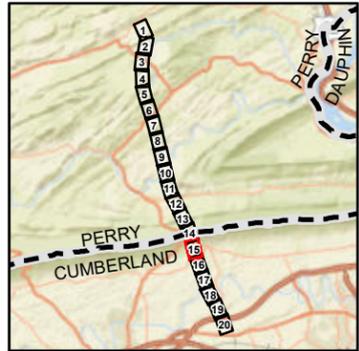
Existing Transmission Lines

- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

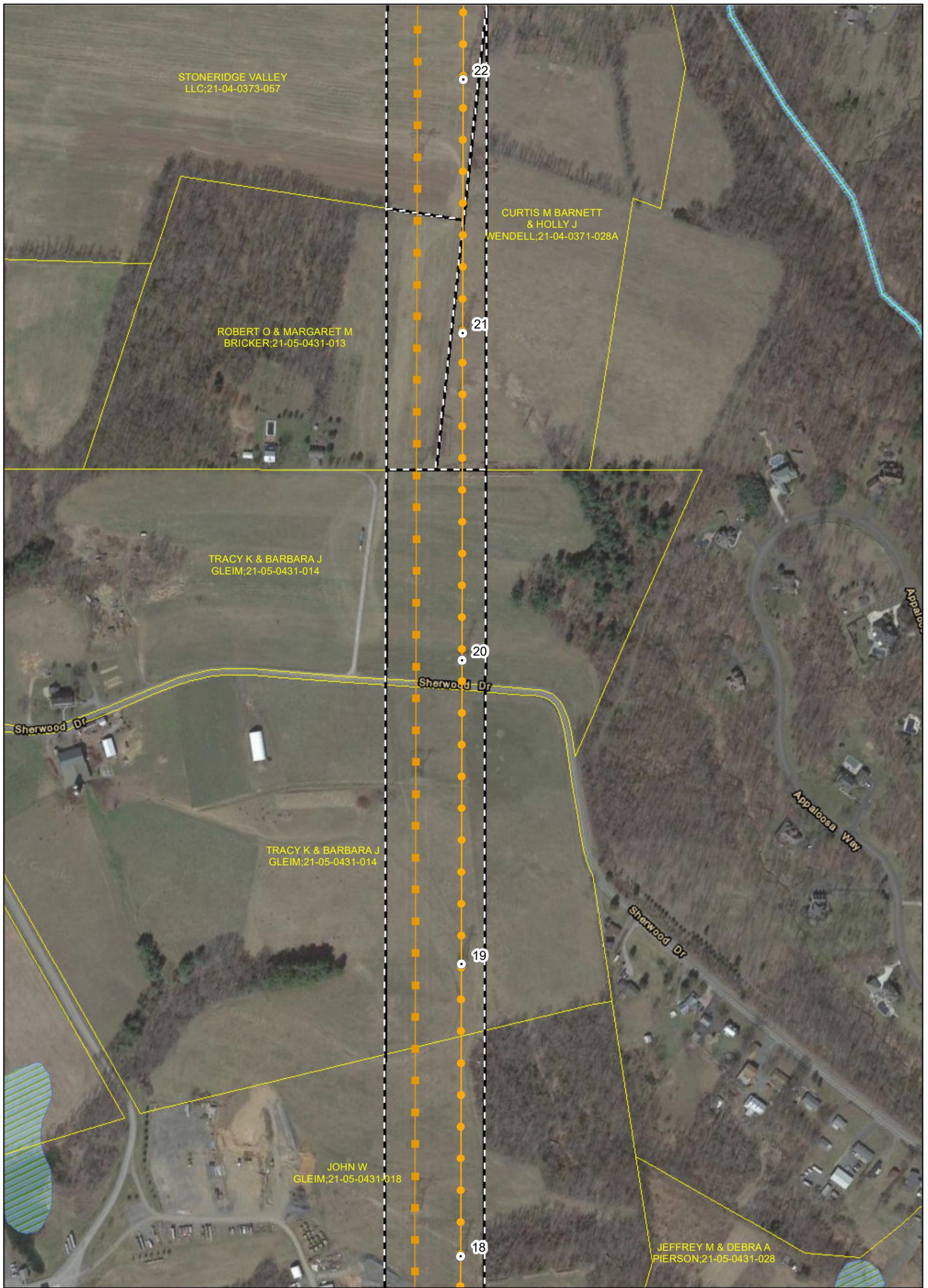
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AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 15 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands

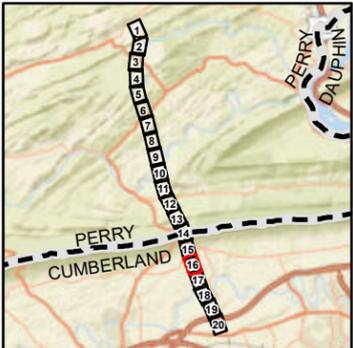
Existing Transmission Lines

- 230 kV
- 500 kV
- Parcel Boundary

Notes:

1. Existing structure locations and right of way provided by PPL Electric in June 2022.
2. Proposed structure locations provided by PPL Electric in June 2022.
3. Existing Transmission Lines provided by PPL Electric in April 2019.

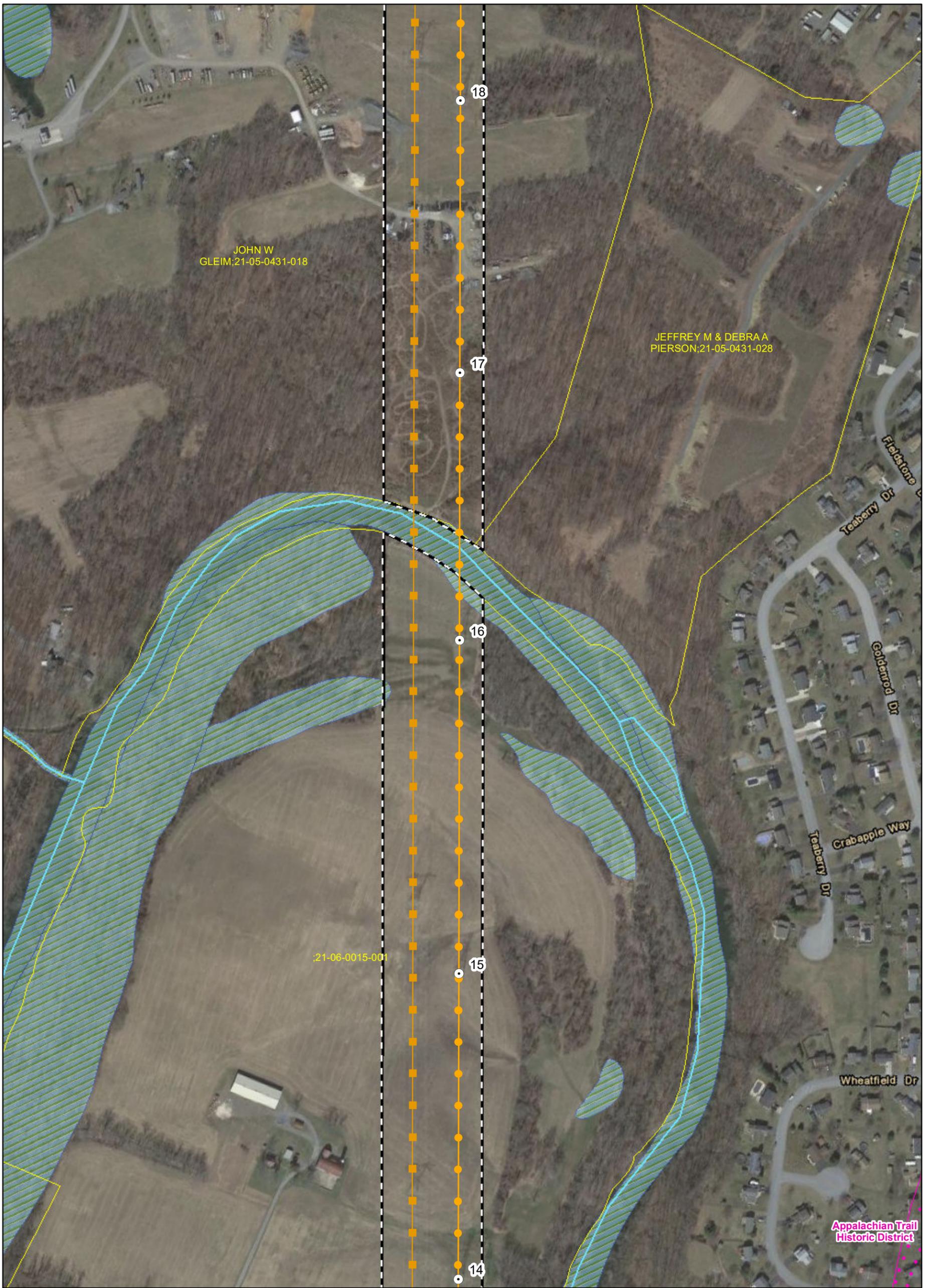
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AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 16 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



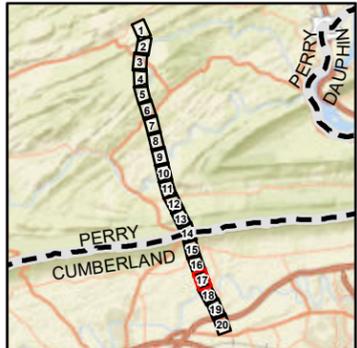
Legend

- Existing Structure
- PPL Electric ROW
- Chapter 93 Designated Use Stream
- WWF
- NWI Wetlands
- Existing Transmission Lines
 - 230 kV
 - 500 kV
- Parcel Boundary
- Eligible Historic District

Notes:

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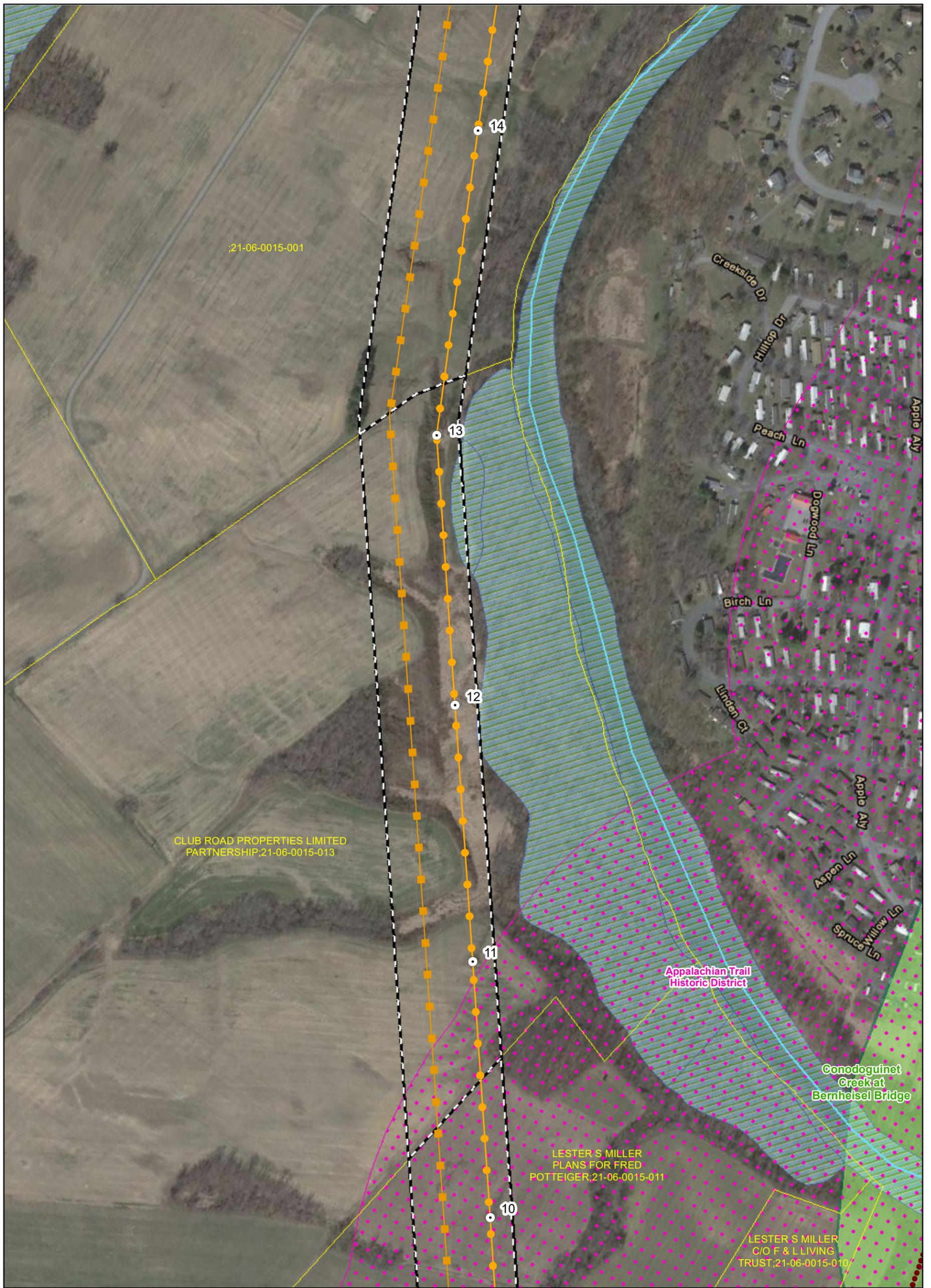
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 Feet



AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconducing Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 17 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RRB
Job: JUNI_CUMB	Date: 8/5/2022



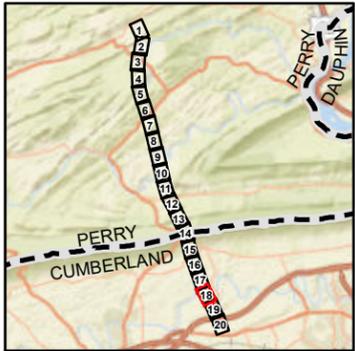
Legend

- Existing Structure
- PPL Electric ROW
- Appalachian Trail
- Chapter 93 Designated Use Stream**
- WWF
- NWI Wetlands
- NHA Core
- Existing Transmission Lines**
- 230 kV
- 500 kV
- Parcel Boundary
- Eligible Historic District

Notes:

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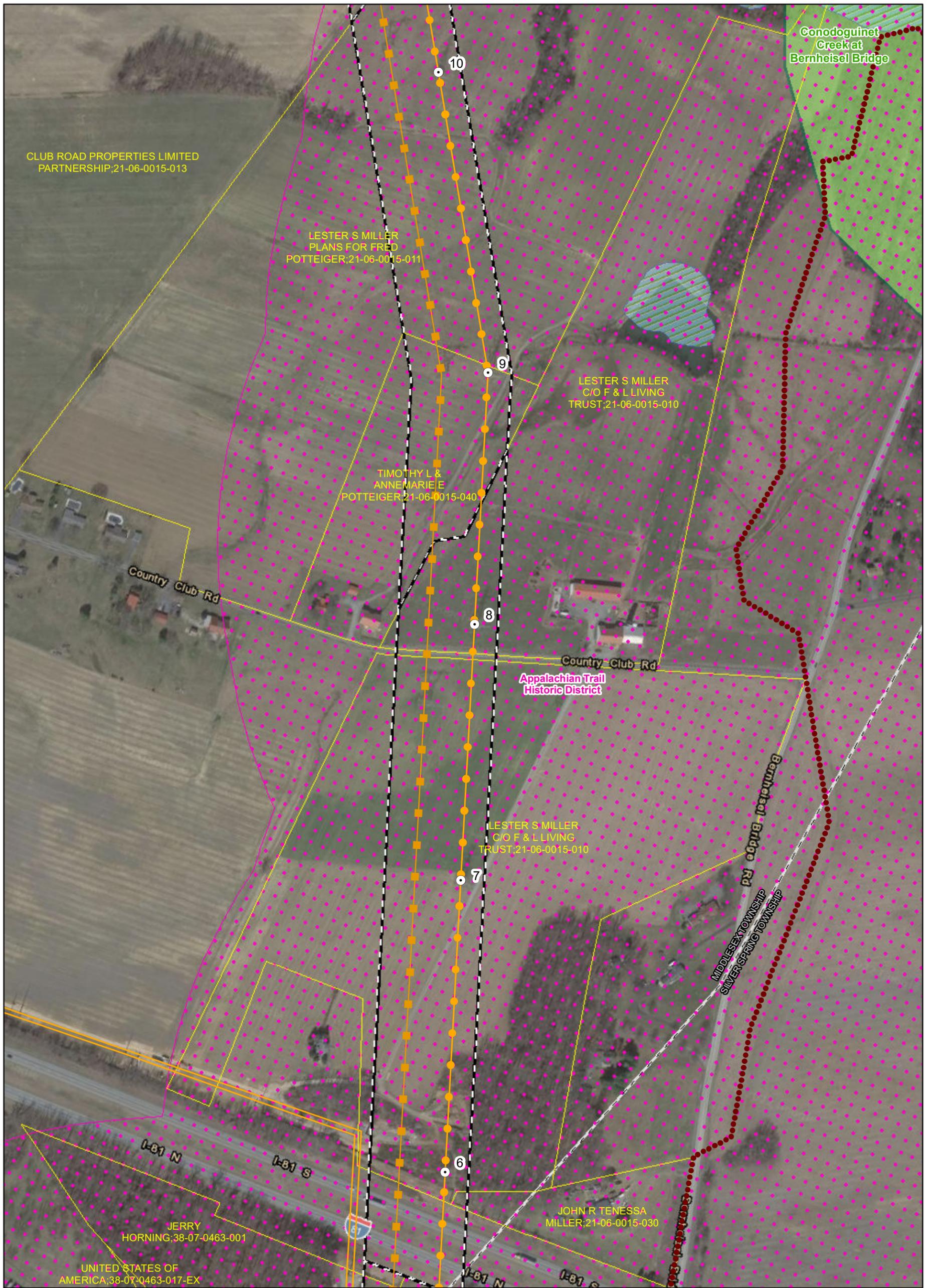
Feet



AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 18 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



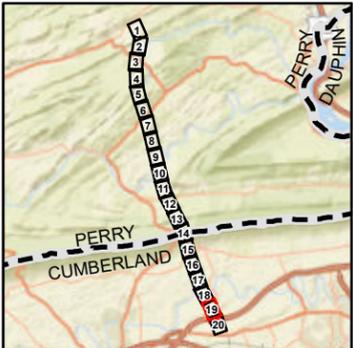
Legend

○	Existing Structure	Existing Transmission Lines
▭	PPL Electric ROW	— 69 kV
●●●●	Appalachian Trail	— 230 kV
▨	NWI Wetlands	— 500 kV
■	NHA Core	▭ Parcel Boundary
		▭ Eligible Historic District

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
- Existing Transmission Lines provided by PPL Electric in April 2019.

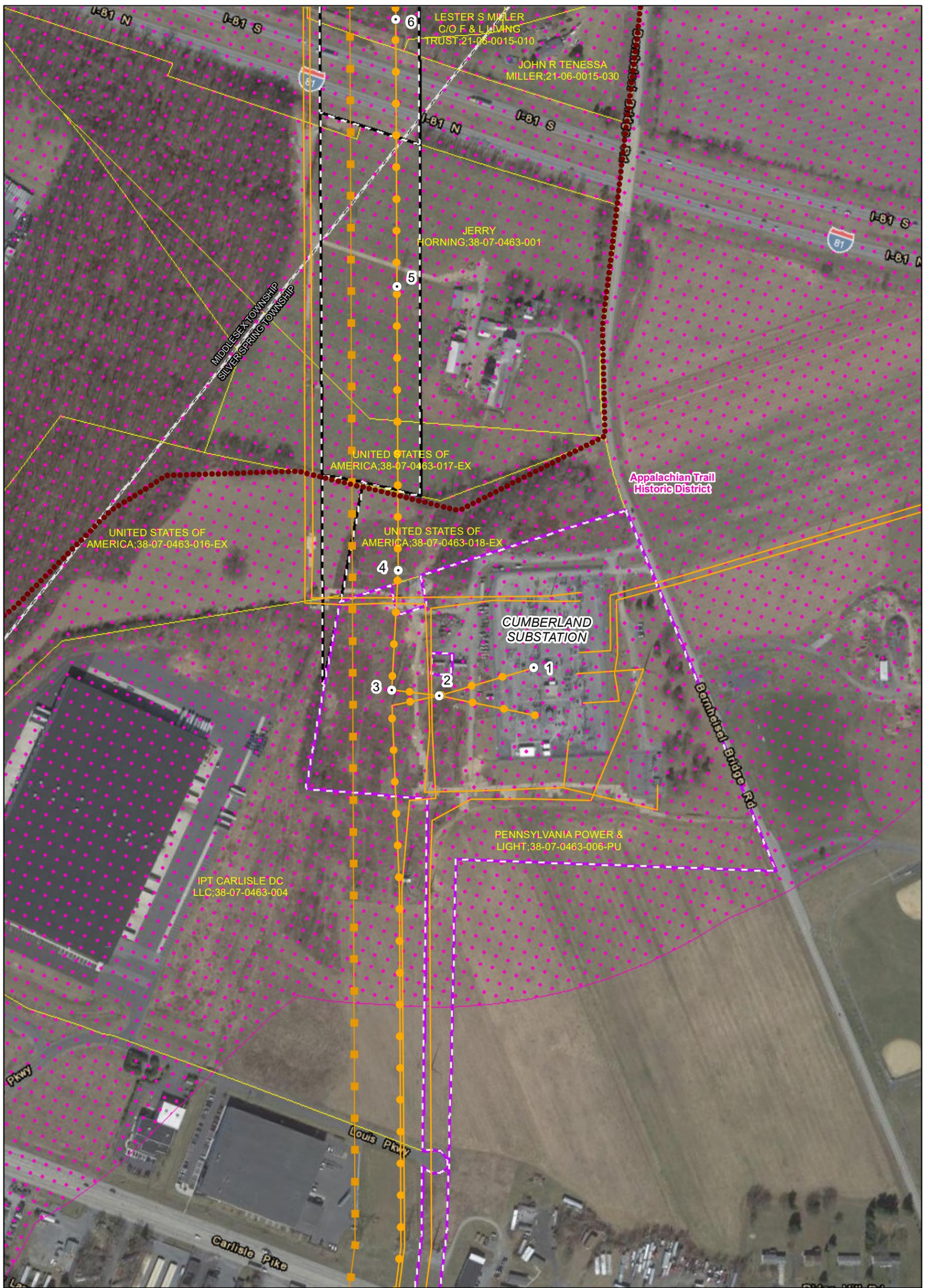
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AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 19 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022



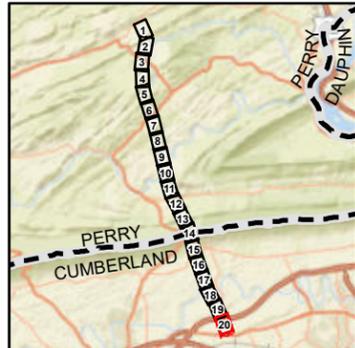
Legend

● Existing Structure	Existing Transmission Lines
▭ PPL Electric ROW	— 69 kV
▭ PPL Electric Fee Owned Property	● 230 kV
●●● Appalachian Trail	■ 500 kV
	▭ Parcel Boundary
	▭ Eligible Historic District

Notes:

- Existing structure locations and right of way provided by PPL Electric in June 2022.
- Proposed structure locations provided by PPL Electric in June 2022.
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0 150 300
Feet



AECOM

Figure 3-1
Aerial Map of the Project
Juniata-Cumberland 230kV
Reconductoring Project
 Perry & Cumberland Counties, Pennsylvania
 Sheet 20 of 20
 PPL Electric Utilities
 Allentown, Pennsylvania

Prepared By: MC	Checked By: DY/RB
Job: JUNI_CUMB	Date: 8/5/2022

**PPL ELECTRIC
ATTACHMENT 4**

JUNIATA-CUMBERLAND 230 KV RECONDUCTORING PROJECT

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1.0 DESIGN CONSIDERATIONS

PPL Electric Utilities Corporation’s (“PPL Electric”) new and rebuilt transmission lines are designed according to, and generally exceed, all National Electric Safety Code (“NESC”) minimum standards. The NESC is a set of rules guiding safety standards during the installation, operation, and maintenance of electric power lines. The NESC contains the basic provisions considered necessary for the safety of employees and the public. Although the NESC is not intended as a design specification, its provisions establish minimum design requirements. PPL Electric has developed design specifications and safety rules which meet or surpass all requirements specified by the NESC. The NESC includes loading requirements and clearances for the design, construction, and operation of power lines. The "loads" on conductors and supporting structures are the mechanical forces that develop from the weight of the conductors, the weight of ice on the conductors, as well as wind pressure on the conductors and supporting structures. Loading requirements are the loads on the conductors and structures that are anticipated assuming certain ice and wind conditions. Loading requirements always contain "safety factors" to allow for unknown or unanticipated contingencies. The clearances and loading requirements contained in the NESC are designed to maintain public safety.

The NESC specifies strength and loading rules based on three different “grades of construction” for conductors and supporting structures:

- Grade B – This grade of construction provides the highest margin of safety and is required when the pole supports spans that cross limited access highways, railroads, and waterways.
- Grade C – This grade of construction is most common and provides a basic margin of safety. It is often utilized for the typical power and joint-use distribution pole.
- Grade N – This is the lowest grade of construction and is most often used for emergency and temporary construction.

PPL Electric designs all its transmission lines for Grade B construction. The use of Grade B design and construction translates to higher levels of structural reliability and safety to withstand the environmental conditions of ice and/or wind loading.

PPL Electric’s rigorous design standards are further incorporated into the parameters utilized to account for ice and wind loadings on wires and structures. Structure loading and line designs must accommodate a variety of operating conditions as different ice and wind combinations can impact the conductor sags and tensions of the line. PPL Electric’s transmission lines are designed to exceed NESC requirements by accounting for additional load cases due to various ice and wind loading conditions beyond what is required by NESC. This means that PPL Electric lines are designed to operate safely and reliably during extreme inclement weather. In addition, PPL Electric design standards include a clearance to ground buffer in excess of NESC required clearances to account for construction and design tolerances and the filling or grading of land within the right-of-way by property owners. This buffer also significantly reduces the risk of a property owner inadvertently contacting a transmission line. This has occurred on PPL Electric’s system in the past and higher clearances minimize the likelihood of future occurrences.

TABLE 4-1: 69 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	19.2 Ft.	22.2 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	19.2 Ft.	22.2 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	15.2 Ft.	22.2 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	27.2 Ft.	30.2 Ft.

TABLE 4-2: 138 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	20.6 Ft.	23.6 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	20.6 Ft.	23.6 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	16.6 Ft.	23.6 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	28.6 Ft.	31.6 Ft.

TABLE 4-3: 230 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	22.5 Ft.	25.5 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	22.5 Ft.	25.5 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	18.5 Ft.	25.5 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	30.5 Ft.	33.5 Ft.

TABLE 4-4: 500 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	28.4 Ft.	31.4 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	28.4 Ft.	31.4 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	24.4 Ft.	31.4 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	36.4 Ft.	39.4 Ft.

A relay protection system is also used on PPL Electric’s transmission lines to protect public safety, as well as the equipment on the transmission system. The purpose of relay protection is to automatically de-energize the line in the unlikely event that the line or supporting structure fails and the line contacts the ground.

2.0 PERIODIC MAINTENANCE PROGRAM ON ALL TRANSMISSION LINES

To ensure continued public safety and integrity of service, a periodic maintenance and inspection program is implemented for every transmission line. The program is administered using helicopter patrols, with supplemental foot patrols as needed. Helicopter patrols are performed on all lines on a predetermined frequency, depending on voltage level. The two-man helicopter crew flies parallel to and above the line so that the observer can look for signs of line damage or deterioration and observe clearances between vegetation and conductors. The observations are included in a report that is forwarded to the appropriate department for corrective action.

3.0 PERSONNEL SAFETY RULES

Overall, PPL Electric designs and constructs projects with high regard to both public and employee safety and follows or exceeds all codes and requirements. The following are a few examples of PPL Electric’s safety rules that demonstrate its dedication to employee and contractor safety:

- Procedures have been developed to allow work to be performed on energized facilities in a safe manner. When lines or apparatus are removed from service to be worked on, the Energy Control Process system is applied. This system provides that a red tag must be physically placed on the control handle of the de-energized equipment.
- The red tag may be removed only after proper authorization to energize the equipment has been received.
- Various other tags are used for limited operations and informational purposes.
- Employees or contractors will not apply or remove a tag or change the status of tagged equipment unless authorized.

- Temporary safety grounds are used on de-energized facilities for employee lineman safety during maintenance, construction, or reconstruction work. Safety grounds are wires connecting the de-energized facility to an electrical ground. If the facility should be energized, the safety grounds will divert the current directly to ground and reduce the likelihood of personal injury.
- Before applying grounds, a voltage test is performed to confirm that the line is de-energized. The voltage test device is checked before and after use to assure reliability.
- Poles or structures are inspected and examined for structural integrity before climbing. If there is any reason to believe that a pole is unsafe, it is stabilized before work is performed. Appropriate safety gear in the form of body belts, safety straps, hard hats, gloves, etc., is worn by linemen during line work activity.

4.0 MAGNETIC FIELD MANAGEMENT PLAN

PPL Electric’s Magnetic Field Management Program is applied to new and reconstructed transmission line projects. Although there is no current scientific evidence demonstrating that magnetic fields cause any adverse health effects or pose a health or safety threat to the public, PPL Electric has established a policy to design its new and rebuilt transmission lines to reduce magnetic fields. To lower magnetic field exposures, the program generally prescribes the use of a line design that provides ground clearances higher than the required minimum NESC ground clearance and reverse phasing of new double circuit lines where it is feasible to do so at low or no cost. The implementation of additional modifications to reduce magnetic field levels is considered, provided those modifications can be made at low or no cost and will not interfere with the operation of the line.

The program will be applied to this Project and designed with clearances that are at least three feet higher than NESC standards.

**PPL ELECTRIC
ATTACHMENT 5**

JUNI-CUMB RECONDUCTORING PROJECT

STATE AGENCIES

Pennsylvania Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
2nd Floor, Room-N201
Harrisburg, Pennsylvania 17120
Attn: Richard Kanaskie

Pennsylvania Department of Environmental Protection
400 Market Street
10th Floor Rachel Carson State Office Building
Harrisburg, Pennsylvania 17101
Attn: Regional Permit Coordination Office

Pennsylvania Department of Transportation
Keystone Building
400 North Street, Fifth Floor
Harrisburg, Pennsylvania 17120
Attn: Donald J. Smith, Acting Chief Counsel

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0053
Attn: Mr. Douglas C. McLearn, Chief

Pennsylvania Department of Conservation and Natural Resources
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17105-8767
Attn: Rebecca Bowen, Ecological Services Section Chief

Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797
Attn: Dr. Matthew Schnupp, Director, Bureau of Wildlife Habitat Management

Pennsylvania Fish and Boat Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9620
Attn: Christopher A. Urban, Chief, Natural Diversity Section

Pennsylvania Office of Consumer Advocate
555 Walnut Street
5th Floor Forum Place
Harrisburg, Pennsylvania 17101-1923
Attn: Patrick M. Cicero, Consumer Advocate

Pennsylvania Office of Small Business Advocate
555 Walnut Street
1st Floor Forum Place
Harrisburg, Pennsylvania 17101
Attn: NazAarah Sabree, Small Business Advocate

FEDERAL AGENCIES

U.S. Army Corps of Engineers
Baltimore District Corporate Communication Office
2 Hopkins Plaza
Baltimore, Maryland 21201
Attn: Planning Division

U.S. Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Rd, Suite 101
State College, Pennsylvania 16801
Attn: Lesa Lindsay

COUNTY AGENCIES

Perry County Planning Commission
20 West. McClure Street
New Bloomfield, Pennsylvania 17068
Attn: Jason Finnerty, Planning Coordinator

Perry County Conservation District
31 West Main Street P.O. Box 36
New Bloomfield, Pennsylvania 17068
Attn: Sally Tengeres, District Manager

Cumberland County Planning Department
310 Allen Road
Suite 101
Carlisle, Pennsylvania 17013
Attn: Kirk Stoner, Director

Cumberland County Conservation District
310 Allen Road
Suite 301
Carlisle, Pennsylvania 17013
Attn: Duff George, Chairman

MUNICIPALITIES

Perry County

Centre Township
2971 Cold Storage Road
New Bloomfield, Pennsylvania 17068
Attn: Colin Reynolds, Chairman

Carroll Township
50 Rambo Hill Road
Shermans Dale, Pennsylvania 17090
Attn: Kirby Kitner, Chairman

Rye Township
1775 New Valley Road
Marysville, Pennsylvania 17053
Attn: James M. Sabo, Chairman

Cumberland County

Middlesex Township
350 N. Middlesex Road
Carlisle, Pennsylvania 17013
Attn: Donald S. Geistwhite, Jr., Chairman

Silver Spring Township
8 Flowers Drive
Mechanicsburg, Pennsylvania 17050
Attn: Carl R. Machamer, Chairman Board of Supervisors

LANDOWNERS

RONALD V ADAMS ET UX 245 MOUNTAINVIEW ROAD SHERMANS DALE, PA 17090-7905	MELISSA M ANDERSON 734 CREEK ROAD SHERMANS DALE, PA 17090-8721
BARRY N & BETH A ARNOLD 8062 SPRING ROAD NEW BLOOMFIELD, PA 17068-8240	ELIZABETH N BAILEY 44 PARKENSON ROAD NEW BLOOMFIELD, PA 17068-9200
CURTIS M BARNETT & HOLLY J WENDELL 7555 WERTZVILLE ROAD CARLISLE, PA 17015-9022	MELODIE E & TIMOTHY I BEAM 25 RICHWINE ROAD MARYSVILLE, PA 17053-9743
JOHN H & ELLEN BEAR 283 DARK HOLLOW ROAD SHERMANS DALE, PA 17090-8203	GUY D BENFER ET UX 20 MOUNTAIN VIEW ROAD SHERMANS DALE, PA 17090-7900
JAMES M & LEISA B BENTSEL 128 EVERGREEN ROAD SHERMANS DALE, PA 17090-8102	CHARLES R JR., BRADFORD & NICHOLAS DILLMAN 3220 COLD STORAGE ROAD NEW BLOOMFIELD, PA 17068-8624
ROBERT O & MARGARET M BRICKER 430 SHERWOOD DRIVE CARLISLE, PA 17015-9026	EDWARD J & NANCY J BUCZESKIE 702 MOUNTAIN ROAD SHERMANS DALE, PA 17090-8526
THOMAS N & ZOE A JR BURD ET IX 8075 SPRING STREET NEW BLOOMFIELD, PA 17068-8240	MATHEW J BYERS 312 WITWER WAY MOUNT JOY, PA 17552-1162
ROBERT S & NANCY A CAMPBELL PO BOX 129 NEWPORT, PA 17074-0129	DAVID CHILSON 392 SANDY HOLLOW SHERMANS DALE, PA 17090-8034

CLUB ROAD PROPERTIES LIMITED PARTNERSHIP 4400 DEER PATH ROAD SUITE 201 HARRISBURG, PA 17110-3908	DAVID H CLYMER ET UX 10 VALLEY RANCH ROAD SHERMANS DALE, PA 17090-9549
DARK HOLLOW LTD PARTNERSHIP 115 BROOK LANE MARYSVILLE, PA 17053-9500	DEPARTMENT OF THE INTERIOR, UNITED STATES OF AMERICA 1849 C ST N.W. WASHINGTON, DC 20240
ROBERT C JR. & SUSAN L DRABENSTADT 136 SUNNYSIDE DRIVE CARLISLE, PA 17015-9039	EAST PENNSYLVANIA ASSN SDA CHURCH 720 MUSEUM ROAD READING, PA 19611-1429
DIANE M EVERITT 6898 SPRING ROAD SHERMANS DALE, PA 17090-8116	JORDAN H FARSON & JOSHUA A ARNOLD 29 RICHWINE ROAD MARYSVILLE, PA 17053
MATTHEW S FARSON 45 RICHWINE ROAD MARYSVILLE, PA 17053-9743	ROBERT E & KAY E FENTON 7582 WERTZVILLE ROAD CARLISLE, PA 17015-9044
WARREN E & LISA A FRY 596 MOUNTAIN VIEW ROAD SHERMANS DALE, PA 17090-7912	TRACY K & BARBARA J GLEIM 450 SHERWOOD DRIVE CARLISLE, PA 17015-9026
JOHN W GLEIM JR. 625 HAMILTON STREET CARLISLE, PA 17013-1925	PERRY COUNTY ARCHERY CLUB C/O RALPH GROVE 7795 SPRING ROAD NEW BLOOMFIELD, PA 17068-8223
JAMES P & AMY E GUSTIN 8102 SPRING ROAD NEW BLOOMFIELD, PA 17068-8241	ROBERT L & RUTH HENRY 350 MOUNTAIN VIEW SHERMANS DALE, PA 17090-7906
PERCY D HIPPLE JR. ET UX 264 ROTH ROAD NEW BLOOMFIELD, PA 17068-8545	JEREMY L & ANGELA J HOCKENBERRY 8157 SPRING ROAD NEW BLOOMFIELD, PA 17068-8241

JERRY HORNING 10 HOOVER LANE BETHEL, PA 19507-9776	JOHN J & JUDY L HOSTETTER 140 HAYESVILLE ROAD OXFORD, PA 19363-1261
FRANCIS T & POLLY ANN JACOBS 4904 MCKENNA COURT COLUMBIA, MO 65203-6209	FRANCIS M & LINDA J KELLER 708 MOUNTAIN ROAD SHERMANS DALE, PA 17090-8526
DARRYN L & MICHELLE L KEMMERER 352 SANDY HOLLOW ROAD SHERMANS DALE, PA 17090-8034	KMWW C/O FORTUNE FINANCIAL 2355 WESTWOOD BLVD SUITE 1404 LOS ANGELES, CA 90064-2109
LARRY D & ABIGAIL KOENIG 17 SPANGLE LANE SHERMANS DALE, PA 17090	BEATRICE & WILLIAM J KURTZ 256 ROTH ROAD NEW BLOOMFIELD, PA 17068-8545
WILBUR H LAIRD ET UX 680 KEYSTONE WAY NEWPORT, PA 17074-8322	BRUCE E & PHYLLIS A LOHR 35 RICHWINE ROAD MARYSVILLE, PA 17053-9743
ALLEN R & DARLA R LUPFER ET AL 255 AIRY VIEW ROAD SHERMANS DALE, PA 17090-8505	CHARLES E LUPFER 280 AIRY VIEW ROAD SHERMANS DALE, PA 17090-8504
ALLEN R & KIMBERLY A LUPFER 580 MOUNTAIN VIEW ROAD SHERMANS DALE, PA 17090-7912	TERRY L & DENNIS R MACKEY 7549 WERTZVILLE ROAD CARLISLE, PA 17015-9022
LUCINDA S MANNING 738 HUCKLEBERRY ROAD NEW BLOOMFIELD, PA 17068-8208	GARRY S MCALLISTER 81 RICHWINE ROAD MARYSVILLE, PA 17053-9743
GRETCHEN & FRANK W JR. MEISE 15 RICHWINE ROAD MARYSVILLE, PA 17053-9743	JOHN R & TENESSA MILLER PO BOX 645 NEW KINGSTOWN, PA 17072-0645

F & L LIVING TRUST C/O LESTER S MILLER JR. 321 COUNTRY CLUB ROAD CARLISLE, PA 17015	JAMES E & JODY M MITCHELL 583 ROSS HILL ROAD GAFFNEY, SC 29341-5134
SHELBY A NELSON 4569 SPRING ROAD SHERMANS DALE, PA 17090-9403	JEFFREY A & SHELBY A NELSON 4569 SPRING ROAD SHERMANS DALE, PA 17090-9403
DANIEL T PAUL 7381 SPRING ROAD SHERMANS DALE, PA 17090-8127	AQUILLAS O & BARBARA A PEACHEY 1896 FREE SPRING CHURCH ROAD MC ALISTERVILLE, PA 17049
TERRY E & KIM D PECK 87 MOUNTAIN ROAD CARLISLE, PA 17015-9045	JEFFREY M & DEBRA A PIERSON 357 SHERWOOD DRIVE CARLISLE, PA 17015-9013
WILLIAM F PIERSON 1132 DRY POWDER CIRCLE MECHANICSBURG, PA 17050-7330	TIMOTHY L & ANNEMARIE E POTTEIGER 312 COUNTRY CLUB ROAD CARLISLE, PA 17015-8881
IPT CARLISLE DC LLC C/O PROLOGIS, LP 1800 WAZEE STREET SUITE 500 DENVER, CO 80202-2526	KEITH B QUIGLEY ET UX PO BOX 428 NEW BLOOMFIELD, PA 17068-0428
GARY E RAMSEY JR 1951 KEYSTONE WAY NEWPORT, PA 17074-9450	RITA K RAND 8093 SPRING ROAD NEW BLOOMFIELD, PA 17068-8240
WILBUR A & PATRICIA RHODES 645 DIX HILL NEW BLOOMFIELD, PA 17068-8633	NELSON C RINEHART 7020 SPRING ROAD SHERMANS DALE, PA 17090-8120
JOHN E RITTER SR. ET UX 4325 VALLEY ROAD SHERMANS DALE, PA 17090-8555	DANIEL E RODDY 71 RICHWINE ROAD MARYSVILLE, PA 17053-9743

PENNY M SEAKS & JEFFREY A KIPPS 675 MOUNTAIN ROAD SHERMANS DALE, PA 17090-8523	JEAN E SHATTO 35 EVERGREEN ROAD SHERMANS DALE, PA 17090
MICHAEL SIEMONS 214 FRONT STREET ENOLA, PA 17025-3215	DONALD E & ROSE MARIE SLIKE PO BOX 292 CAMP HILL, PA 17001-0292
LARRY R & SUE A SMEIGH 344 SOULE ROAD NEW BLOOMFIELD, PA 17068-8555	DAVID J LENTZ & MICHELLE L SMITH 589 DIX HILL ROAD NEW BLOOMFIELD, PA 17068-8632
JULIE A SPOTTS-KATONA 122 EVERGREEN ROAD SHERMANS DALE, PA 17090-8102	STONERIDGE VALLEY LLC 202 HAMMERSMITH DRIVE PINE GROVE, PA 17963
DAPHNEY L & JORDAN R SWEGER 11 VALLEY RANCH ROAD SHERMANS DALE, PA 17090-9549	RANDAL & ANNE THOMPSON 249 ROTH ROAD NEW BLOOMFIELD, PA 17068-8545
MARK A & ALISSA JB THOMPSON 716 PINE GROVE ROAD NEW BLOOMFIELD, PA 17068-8225	SHANE A & MAGGIE E THORNTON 4 ALEXANDER COURT MECHANICSBURG, PA 17050-1769
BARRY A & LINDA J TIENTER 232 ROTH ROAD NEW BLOOMFIELD, PA 17068-8545	TSW VALLEY VIEW LLC 1927 MONTEREY DRIVE MECHANICSBURG, PA 17050-8510
RICKY J & TINA M WALKER 725 DIX HILL ROAD NEW BLOOMFIELD, PA 17068-8634	WILLIAM WEIBLE ET AL 232 ROTH ROAD NEW BLOOMFIELD, PA 17068-8545
JARED S & ERICA R WEIBLEY 83 EVERGREEN ROAD SHERMANS DALE, PA 17090-8101	JERRY R WOLTZ & PATRICIA A RAY 130 SOULE ROAD NEW BLOOMFIELD, PA 17068-8553

CHARLES E & JESSICA L WRIGHT 843 MOUNTAIN ROAD SHERMANS DALE, PA 17090-8527	BRENT D YOCUM II 12 VALLEY RANCH ROAD SHERMANS DALE, PA 17090-9549
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VERIFICATION

I, JOSEPH B. LOOKUP, being the Director of Asset Management at PPL Services Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 10/20/2022


Joseph B. Lookup (Oct 20, 2022 08:16 EDT)
Joseph B. Lookup