VDEQ Supplement

Abert – Reusens Transmission Improvements Project

SCC Case No. PUR-2026-00047

Amherst and Bedford Counties and the City of Lynchburg, Virginia

Prepared for:
Appalachian Power Company

Prepared by:
Environmental Resources Management

May 2026

Based on consultations with the Virginia Department of Environmental Quality, Environmental Resources Management on behalf of Appalachian Power Company has developed this supplement to facilitate review and analysis of the proposed Project by the Virginia Department of Environmental Quality and other relevant agencies.

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Attachments

1. Project Description

Appalachian Power Company ("Appalachian" or "Company") is planning to rebuild a section of an existing 69-kilovolt ("kV") transmission line and upgrade an existing substation in Amherst and Bedford Counties and the City of Lynchburg, Virginia. The Abert – Reusens Transmission Improvements Project ("Project") involves rebuilding approximately 4.4 miles of a section of the Company's existing Big Island – Reusens 69-kV Transmission Line between the existing Abert Substation in Amherst County and the Reusens Substation in the City of Lynchburg. The existing Big Island – Reusens 69-kV Transmission Line has been in operation since the 1960s as a single-circuit transmission line. The existing structures are primarily wooden H-frames and three-pole structures and will be rebuilt with steel H-frames, three-pole, and monopole structures; however, the final structure types will be determined following additional studies and final engineering. The anticipated heights of the proposed structures range between 65 and 86 feet. The average height of the proposed structures are approximately 20 feet taller than the average height of the existing structures. The transmission line will be rebuilt in or near the existing 100-foot-wide right-of-way ("ROW").

The Company's application ("Application") to the Virginia State Corporation Commission ("SCC") describes the overall need and necessity for the Project (see SCC Case No. PUR-2026-00047).

2. Environmental Analysis

The Company retained ERM to conduct an environmental analysis on the Project through this Virginia Department of Environmental Quality ("VDEQ") Supplement. In a letter dated July 31, 2025, the Company and Environmental Resources Management ("ERM") solicited input from 42 federal, state, and local agencies and/or officials regarding the Project. Responses to the Project were received from 11 representatives of various agencies and are included in Attachment D of the Rebuild Siting Study for the Abert – Reusens Transmission Improvements Project ("Siting Study"), located in Volume 2 of the Application. ERM also obtained relevant environmental data from field verification, online databases, and other publicly available sources.

A. Air Quality

The Project does not involve the construction or expansion of any thermal emission generating sources and therefore no direct operational emissions from the Project are anticipated. During construction, emissions from heavy equipment and dust could occur but would be kept to a minimum. No permanent impacts on air quality are anticipated, and temporary impacts will only last for the duration of the construction phase. The Company does not expect to burn cleared material but, if burning becomes necessary, the Company will coordinate with the responsible localities to obtain permits and will comply with

conditions imposed by the locality. The Company's tree-clearing methods can be found in Section II.A.7 of the SCC Response to Guidelines in Volume 1 of the Application.

B. Water Source

No water source is required for the operation of either the transmission line or substation. The Project lies within the Middle James-Buffalo sub-basin Hydrologic Unity Code ("HUC") 8-digit: 02080203 and the Jamer River-Judith Creek subwatershed HUC 12-digit: 020802030301.

On behalf of the Company, ERM identified and mapped waterbodies in the vicinity of the Proposed Route using publicly available geographic information system ("GIS") databases, U.S. Geological Survey ("USGS") National Hydrography Dataset Plus High Resolution ("NHD"), ESRI World Elevation Terrain (used to calculate 10- and 2-foot contours), the United States Fish and Wildlife Service ("USFWS") National Wetland Inventory ("NWI"), recent and historic digital aerial imagery (ESRI World Imagery, Google Earth Aerial Imagery 2025, Natural Resources Conservation Service ("NRCS") National Agriculture Imagery Program 2023, Federal Emergency Management Agency ("FEMA") Flood Hazard Zones 2008-2025, and Virginia Geographic Information Network Virginia Base Mapping Program Most Recent Imagery 2022-2025. The desktop features were identified within the 100-foot-wide ROW of the approximately 4.4-mile-long Proposed Route. The results of the desktop review are briefly summarized below. Refer to the Desktop Wetland and Stream Delineation Report for the Project in Attachment 2.D.1 for additional detail.

The Proposed Route crosses five NHD-mapped waterbodies: the James River, two unnamed tributaries to the James River, Salt Creek, and Judith Creek. The Proposed Route will be rebuilt within or near the existing 100-foot-wide ROW and will utilize an overhead configuration that would span waterbodies. The proposed structures will be sited on either side of the waterbodies identified along the route and the distance between structures will be adequate to span the waterbodies.

Riparian buffer conversion due to tree clearing will occur where new ROW is necessary. The Proposed Route diverts from the existing centerline in three locations resulting in new ROW encompassing approximately 7.2 acres. The removal of forested riparian areas adjacent to waterbodies would reduce riparian buffer functions such as stream bank stabilization and erosion control, nutrient and sediment filtration, floodwater storage and peak flow reduction, and water temperature changes due to loss of shading at these locations. The Project minimizes impacts on surface waters and riparian habitat by utilizing the existing ROW at crossings to the extent practicable, leaving roots and stumps in place. The Company will implement erosion and sediment control Best Management Practices ("BMPs") during Project construction.

According to U.S. Army Corps of Engineers ("USACE") Navigable Waters Of The United States Section 10 of the Rivers and Harbors Act, the James River is considered navigable and is being crossed by the Project in the existing 100-foot-wide ROW. Waterbodies crossed by the Project are summarized in Table B-1 and further detailed in the Wetland and Waterbody Desktop Summary (see Attachment 2.D.1).

Table B-1
Waterbodies Crossed by the Proposed Route[a]

Proposed Route	NHD Perennial Riverine Features	NHD Intermittent Riverine Features	NHD Perennial Lakes & Ponds	Non-NHD mapped waterbodies	Total
Waterbodies crossed by the ROW (count)	4	1	0	38	43
Waterbodies crossed by the ROW (linear feet)	662.2	105.2	0	4,814.4	5,581.8

[a] As identified during the desktop analysis.

During construction, proper drainage of waterbodies will be maintained using culverts and/or other crossing devices, as needed, according to the Company's standard policies. Vegetation will be cut at or slightly above ground level, and stumps will not be grubbed. To protect waterways from soil erosion and sedimentation during construction, the Company will use sediment barriers along waterways and steep slopes. If a section of line cannot be accessed from existing roads, the Company may need to install a culvert or temporary bridge to cross small streams. In such cases, temporary fill material may be required that would be placed on erosion control fabric and removed when work is completed, returning the surface to original contours.

The Company requested comment from the following agencies in a letter dated July 28, 2025: USACE, Virginia Marine Resources Commission ("VMRC") and the VDEQ Office of Wetland and Stream Protection's Central and Blue Ridge regional offices. The VDEQ Office of Wetland and Stream Protection's Blue Ridge regional office provided a response on August 11, 2025 indicating no comments for the Project. The VMRC provided a response on August 20, 2025 confirming the need for a Joint Permit Application ("JPA") for encroachments over State-owned submerged lands.

Coordination and review with the USACE, VDEQ, and VMRC will be conducted by the Company during the Project's environmental studies to authorize jurisdictional crossings and for any impacts on jurisdictional features.

C. Discharge of Cooling Waters

No discharge of cooling waters is associated with the Project.

D. Tidal and Non-tidal Wetlands

No tidal wetlands are associated with the Project. A desktop wetland and stream delineation report was prepared to identify potential non-tidal wetlands crossed by the Project. The desktop features were identified within the 100-foot-wide ROW of the approximately 4.4-mile-long Proposed Route. The results of the desktop review are briefly summarized below. A copy of the Desktop Wetland and Stream Delineation Report for the Project is included as Attachment 2.D.1.

ERM used GIS and remote sensing data to conduct a desktop wetland delineation for the Project. Sources for the desktop summary include publicly available GIS databases, as discussed above in Section 2.B. A field wetland delineation will be completed for the Project if approved by the SCC.

ERM used a stepwise process to identify probable wetlands (and waterbodies as discussed in Section 2.B) occurrence within the Proposed Route as follows:

1. Infrared and natural color aerial photography was used in conjunction with USGS topographic maps, soils maps, and other data sources to identify potential wetland areas. Boundaries were assigned to the areas that appeared to exhibit wetland signatures based on this review (referred to here as "Interpreted Wetlands"), and a cover type was determined based on aerial photo interpretation.

2. To further determine the probability of a wetland occurring within a given location, polygon shapefiles for Interpreted Wetlands were digitally layered with NWI and hydric soils information from the NRCS soil survey database.

3. ERM assigned a probability of wetland occurrence based on the number of overlapping data layers (i.e., indicators of potential wetland presence) in any given area (Table D-1).

Table D-1 **Abert – Reusens Transmission Improvements Project** **Wetland Probability Criteria**	
Probability Class	**Criteria**
High	Areas where layers of hydric soils, Interpreted Wetlands, and NWI data overlap
Medium/High	Areas where NWI data overlaps hydric soils; or NWI data overlaps Interpreted Wetlands with or without partially hydric soils; or hydric soils overlap Interpreted Wetlands
Medium	Interpreted Wetlands with or without overlap by partially hydric soils
Medium/Low	Hydric soils only; or NWI data with or without overlap by partially hydric soils
Low	Partially hydric soils only
Very Low	Non-hydric soils only

Using the above criteria, wetland occurrence probabilities ranging from Very Low to High were identified for the Project, with acres of affected wetland calculated by probability class and cover type. The probability of wetland occurrence increases as multiple indicators overlap toward the "High" end of the probability spectrum as shown in Table D-1. The "Medium" to "High" probability categories were selected as the most reliable representation of in-situ conditions due to the amount of overlapping data sets. Results for the wetland probability analysis are presented below.

As described further in Attachment 2.D.1, the wetlands crossed by the Proposed Route ROW are PEM wetlands since the Project is in or near the existing maintained ROW. Wetlands and waterbodies of "medium" or "higher" probability crossed by the Project are summarized in Table D-2.

Table D-2
Abert – Reusens Transmission Improvements Project
Wetlands Crossed by the Project [a, b, c]

Proposed Route	**Palustrine Forested (PFO)**	**Palustrine Scrub-Shrub (PSS)**	**Palustrine Emergent (PEM)**	**Palustrine Unconsolidated Bottom (PUB)**	**Riverine (streams)**	**Total**
New ROW (acres)	NA	NA	<0.1	NA	0.1	7.2
Existing ROW (acres)	NA	NA	1.6	<0.1	1.7	45.6
Total ROW (acres)	NA	NA	1.6	<0.1	1.8	8

[a] Values have been rounded to the tenths place; as a result, the totals may not reflect the sum of the addends. A value of <0.1 indicates that less than 0.05 acre of a wetland type is present.
[b] Identified via recent and historic aerial imagery, topography, and terrain.
[c] NA = Not applicable due to absence of a wetland type within the Project.

Based on a review of the desktop delineation, the Proposed Route between the Company's existing Abert and Reusens Substations will result in minimal impacts. The Proposed Route will largely be rebuilt in or near the existing 100-foot-wide ROW, so new impacts to any stream or wetland features that are crossed can likely be minimized or avoided during construction. Additionally, high probability streams are crossed at or directly adjacent to the existing crossing locations. To that end, the Project crosses the James River in the existing ROW.

All wetlands will require protective matting to be installed to support construction vehicles, equipment, and materials during construction. Based on the desktop wetland analysis, all wetlands and waterbodies would be spanned with impacts generally limited to temporary construction impacts.

The majority of the Project is located within an existing maintained ROW, therefore PFO and PSS wetlands will likely not be encountered. If PFO and PSS wetlands are identified within the expansion areas, impacted vegetation would be allowed to return as open meadow and/or shrub-scrub habitat once construction is complete. This would be generally consistent with vegetation maintained in the existing ROW. As such, the generally open meadow and/or shrub-scrub habitat would provide some filtration and stabilization to protect waterbodies from runoff. Prior to construction, the Company will delineate wetlands and other waters using the "Routine Determination Method", as outlined in the "1987 Corps of Engineers Wetland Delineation Manual" and methods described in the "2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)". If impacts to wetlands are required for the construction of the Project, the Company will obtain any necessary permits, from federal, state, and local authorities. The preliminary proposed structure locations minimize impacts on wetlands and waterbodies to the extent practicable. Any temporary impacts will be restored to pre-existing conditions, and permanent impacts will be mitigated in accordance with all applicable federal and state regulations and laws.

As discussed in Section 2.B, the Project may require permits from the VMRC, VDEQ, and USACE. If necessary, a JPA will be submitted for further evaluation and final permit need determination by VDEQ, VMRC, and the USACE.

E. Floodplains

As depicted on the Federal Emergency Management Agency's ("FEMA") online Flood Insurance Rate Maps #5100930027D (effective date June 3, 2008), #51009C0155c (effective date February 14, 2025), #51019C0025D (effective date September 29, 2010). The Project study area contains flood hazard area Zone AE (100-year floodplain) and X (0.2% annual chance of flooding). The Company will coordinate with the local floodplain coordinators as required.

F. Solid and Hazardous Waste

ERM conducted a review of available U.S. Environmental Protection Agency ("EPA"), USACE, and VDEQ GIS databases to identify facilities within the study area that currently or have historically used, stored and/or generated hazardous substances, and properties that may be associated with releases of hazardous chemicals to the environment. The goal of this review was to identify locations associated with historic contamination, remedial investigations, corrective actions, or emergency response events related to releases of hazardous substances that may be impacted by, or cause impact to, the route alternatives. Properties with such designations may be associated with environmental conditions which could pose a current or future risk to human health and the environment, and the property or portions of the property may be subject to restrictive covenants.

The review included a search of the EPA Federal Registry Service database to identify Resource Conservation and Recovery Act ("RCRA") and Toxic Release Inventory ("TRI") regulated facilities; a search of the EPA Cleanups In My Community database to identify Superfund, Brownfields, RCRA Corrective Action, and Emergency Response properties; a search of the USACE Formerly Used Defense Sites ("FUDS") database to identify FUDS properties with and without remediation projects; and a search of the VDEQ Environmental Data Mapper ("EDM") to identify Registered Petroleum Tank, Solid Waste Permit, and Virginia Pollution Discharge Elimination System ("VPDES") outfall facilities, as well as Petroleum Release, Voluntary Remediation Program ("VRP") and Pollution Response Program ("PREP") cases.

Database point counts for all regulated facilities (i.e., facilities that are regulated but not necessarily associated with contamination cases) mapped within 0.25-miles of the ROW of the Proposed Route are provided in Table F-1. Database point counts for all contamination, remediation and response cases (collectively referred to as "contamination cases") mapped within 0.25-miles of the ROW of the Proposed Route are provided in Table F-2. The locations of the database points are depicted in Attachment 2.F.1.

TABLE F-1 **Abert – Reusens Transmission Improvements Project** **Active and Inactive EPA and VDEQ Regulated Solid and Hazardous Waste Facilities within 0.25 miles [1]**	
Facility Type	**Number within 0.25 miles of Proposed Route**
EPA	
RCRA Large Quantity Generator Facilities	0
RCRA Other Facilities [2]	0
TRI Facilities	0
USACE	
FUDS [3]	0
VDEQ	
Registered Petroleum Tank Facilities	1
Solid Waste Facilities	0
VPDES Industrial Outfalls [4]	2

[1] Site counts are based only on the location of points mapped in agency databases within 0.25-mile of the Proposed Route ROW. Database point placement accuracy may vary.
[2] Includes RCRA Small Quantity Generators, Very Small Quantity Generators, Transporters and/or Treatment, Storage and Disposal Facilities.
[3] FUDS may include facilities with or without projects. Site counts in this table represent all FUDS properties within the specified distance.
[4] VPDES Industrial Outfalls represent permitted offsite discharge locations from industrial facilities. Several outfalls may be associated with a single facility.

TABLE F-2 **Abert – Reusens Transmission Improvements Project** **Active and Historic Contamination, Investigation, Cleanup and Corrective Action Cases within 0.25 miles [1]**	
Case Type	**Number within 0.25 miles of Proposed Route**
EPA	
Brownfields	0
Emergency Response	0
RCRA Corrective Action	0
Superfund [2]	0
USACE	
FUDS [3]	0
VDEQ	
Petroleum Releases	0
PREP	2
VRP	0

[1] Site counts are based only on the location of points mapped in agency databases within 0.25-mile of the Proposed Route ROW. Database point placement accuracy may vary, and the true boundaries of a site may be within or outside of the 0.25-mile buffer zone. Data accuracy and true site boundaries have not been accounted for in this table.
[2] Includes both National Priority List and/or Non-National Priority List Superfund sites within 0.25-mile.
[3] FUDS Project sites may include contaminated and non-contaminated facilities.

Contamination cases that are mapped on properties with parcel boundaries within 200-feet of the Proposed Route are typically considered to be within "close proximity". No contamination sites are located within 200 feet based on a desktop review of available EPA, USACE and VDEQ data. As such, no contaminated soil or groundwater is anticipated to be encountered during Project activities.

Based on VDEQ's EDM database, no petroleum release or VRP cases are mapped within 0.25 miles of the Project. The list of PREP cases below are located within 0.25 miles of the Proposed Route but were determined to be unlikely to have impacted soil and/or groundwater within the ROW based on agency records and location. The VDEQ PREP cases are typically opened as a result of small incidents, such as above ground spills, odors in the air, sediment/chemical laden stormwater runoff, debris observations, etc. PREP cases may be referred to another agency or VDEQ program or may be closed upon completion of an investigation. Properties that are only associated with a closed PREP case with no other investigations or site designations are typically unlikely to pose a risk to human health and the environment.

- IR 300273 – SSO – City of Lynchburg – 4768 John Scott Dr, Lynchburg, VA – Closed

- IR 307804 – Unknown black substance in James River – Reusens Hydroelectric Plant - Lynchburg – 4300 Hydro St, Lynchburg, VA – Closed

Summary

Based on the desktop review of VDEQ databases and case files, the Company has determined that no contaminated sites are located within close proximity to the Proposed Route and no contaminated soil or groundwater is anticipated to be encountered during Project activities. In addition, none of the EPA, USACE or VDEQ regulated facilities identified in Table F-1 or potential release cases identified in Table F-2 are anticipated to have impacted soil and/or groundwater in the Project area, and no impacts to those sites and cases should be anticipated as a result of Project construction.

Although the Project is constructing overhead lines, subsurface work is required during installation. This disturbance occurs at discrete locations along the route, with temporary spoils contained as they are generated. Should contaminated media be encountered in any location during construction, the Company will implement its standard response and reporting procedures, which will be outlined in the stormwater pollution prevention plan, to properly manage and dispose of any suspected hazardous materials in accordance with required safety standards and all applicable federal, state, and local regulations.

Lastly, care will be taken to operate and maintain construction equipment to prevent any fuel or oil spills. Any waste created by construction crews will be disposed of in a proper

manner and recycled where appropriate. Waste management procedures will be further detailed in the Company's stormwater pollution prevention plan, a component of the Virginia Stormwater Management Program, which falls under the purview of the VDEQ.

G. Natural Heritage, Threatened and Endangered Species

Threatened and Endangered Species

On behalf of the Company, ERM conducted online database searches for threatened and endangered ("T&E") species within the Project study area and/or within a 2.0 mile radius of the Project study area. One online database search included the Virginia Department of Conservation and Recreation's ("VDCR") Natural Heritage Data Explorer ("NHDE"). The NHDE Screening Layer includes two components: Conservation Sites ("CS") and Stream Conservation Sites ("SCS"). ERM also obtained query results from the Virginia Department of Wildlife Resources ("VDWR") Fish and Wildlife Information Service ("VaFWIS"), Wildlife Environmental Review Map Service ("WERMS"), and the USFWS Information for Planning and Consultation ("IPaC") System to identify federal- and state-listed species that may occur within the study area and/or within a 2.0-miles radius of the study area. Digital data were obtained from the VDCR-NHDE to identify locations within the study area that potentially support protected species. Results of these queries are provided in Attachment 2.G.1.

The review accounted for regulatory changes and requirements associated with tricolored bat ("TCB," *Perimyotis subflavus*) and monarch butterfly (*Danaus plexippus*) and the proposed USFWS listing of these species as federally endangered and federally threatened, respectively. On September 14, 2022, the TCB was proposed to be listed as endangered by USFWS. USFWS extended its Final Rule issuance target from September 2023 to the end of 2024, but as of the date of this filing, the TCB listing decision has not been issued. On December 12, 2024, the monarch butterfly was proposed to be listed as threatened by the USFWS, and the 90-day public comment period was extended and closed on May 19, 2025. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on its projects' permitting, construction, and in-service dates, including electric transmission projects.

In October 2024, USFWS issued a final Northern long-eared bat ("NLEB," *Myotis septentrionalis*) and TCB Range-wide Determination Key ("DKey") to allow projects to assess impacts, practicable avoidance and minimization measures, and consultation requirements under the final NLEB guidance and the eventual TCB listing ahead of the final decision. The Company will utilize the DKey to further assess project impacts and determine appropriate avoidance and minimization measures to ensure compliance with state and federal regulations when the Project begins permitting.

To obtain the most current eagle nest data, ERM reviewed the Center for Conservation Biology ("CCB") Virginia Eagle Nest Locator mapping portal, which provides information about the Virginia Bald Eagle (*Haliaeetus leucocephalus*) population, including the results of the CCB's annual eagle nest survey. Based on the CCB Virginia Eagle Nest Locator mapping portal, the study area is not located within an Eagle Concentration Area, and the Project does not intersect any Primary Buffers (i.e., 330-feet) of currently documented Bald Eagle nests as identified in The Bald Eagle Protection Guidelines for Virginia (2012). The eagle nest nearest to the Project (Nest ID BE0301) is located along the James River, approximately 1,200 feet east of the Project. The nest was last checked in 2011, and the last year occupied is unknown. The Company will work with the appropriate jurisdictional agencies to minimize impacts on this species.

Five federal- and/or state-listed or proposed T&E species have the potential to occur within the Project study area or within a 2.0-miles radius of the study area (see Table G-1).

TABLE G-1
Abert – Reusens Transmission Improvements Project
Potential Federal-and State-Listed Species in the Study Area or within a 2.0-miles Radius of the Study Area

Species	Status	Database	Habitat	Results
Tricolored bat (*Perimyotis subflavus)*	FPE, SE	IPaC, VaFWIS, VDWR's NLEB, TCB, and Little Brown Bat Consultation Tools	The species typically roosts in trees near forest edges during summer and hibernates deep in caves or mines in areas with warm, stable temperatures during winter.	Species confirmed as present in 2022 approximately 0.4 mile east of the Project. Suitable habitat may exist in forested areas along the Project.
Yellow lance (*Elliptio lanceolata*)	FT, ST	VaFWIS, WERMS	The species depends on clean, moderately flowing water with high dissolved oxygen. They are found in medium-sized rivers to smaller streams and buried deep into coarse to medium sand substrate and sometimes gravel. The species moves with shifting sand settling in the downstream end of stable sand and gravel bars.	Species confirmed as present within James River, which is crossed by the Project. No instream work will be performed.
Green floater (*Lasmigona subviridis*)	FPT, ST	IPaC, VaFWIS, WERMS	The species occupies streams with slow to medium flows and good water quality. They are often found in sand or small gravel substrates where they establish a foothold and bury themselves as deep as 15 inches. When they occur in larger streams and rivers, they are found in quieter pools and eddies, away from strong currents.	Species confirmed as present within James River, which is crossed by the Project. No instream work will be performed.

TABLE G-1
Abert – Reusens Transmission Improvements Project
Potential Federal-and State-Listed Species in the Study Area or within a 2.0-miles Radius of the Study Area

Species	Status	Database	Habitat	Results
James spinymussel (*Parvaspina collina*)	FE, SE	VaFWIS, WERMS	This species thrives in free-flowing streams with a variety of flow regimes and water depths and are found in a variety of substrates that are free from silt.	Species confirmed as present within James River, which is crossed by the Project. No instream work will be performed.
Monarch butterfly (*Danaus plexippus*)	FPT	IPaC	The butterflies are habitat generalists that rely on flowering plants. They require milkweed to lay eggs, for reproduction, and for the caterpillar stage.	Species not confirmed as present. Suitable habitat may exist in open space areas along the Project.

Federal/State Status:
FE Federally listed as endangered
SE State listed as endangered
FT Federally listed as threatened
ST State listed as threatened
FPE Federally proposed as endangered
FPT Federally proposed as threatened

Within the Project study area and/or within a 2.0-miles radius of the study area, database queries identified three species with a federally proposed listing under the Endangered Species Act ("ESA") that could potentially occur in the study area: TCB, green floater (*Lasmigona subviridis*), and monarch butterfly. TCB and green floater are also state-listed species. Federally listed species identified include yellow lance (*Elliptio lanceolata*) and James spinymussel (*Parvaspina collina*). All but one of these species (monarch butterfly) are also state-listed.

All five of these species were identified by the VDWR, the VDCR-NHDE and/or USFWS databases as having potential to occur within the Project study area and/or occurrence within a 2.0-miles radius of the study area. The databases identified the TCB, yellow lance, green floater, and James spinymussel as species that have confirmed occurrences within the study area and/or within a 2.0-miles buffer around the study area.

While VDWR's NLEB, TCB, and Little Brown Bat Consultation Tool does not document any occurrences of federal- and/or state-listed bat hibernaculum (winter habitat) within a 2.0-miles radius of the Project study area, the VaFWIS and WERMS databases confirmed the presence of the TCB in one location approximately 0.4 miles east of the Project and opposite of the James River. Summer foraging habitat for T&E bat species is likely present within forested habitats crossed by the Project. No impacts to T&E bats are anticipated if trees are cleared during the winter according to VDWR time-of-year restrictions ("TOYRs").

Potential habitat for the yellow lance, green floater, and James spinymussel is present within the Project study area, and the VaFWIS and WERMS databases confirmed the presence of all three species within the study area. Due to the documented occurrences of the green floater

and James spinymussel within the James River, this waterbody has been classified as Threatened and Endangered Species Waters ("T&E Waters"). This designation classifies streams and rivers that contain documented occurrences of federal- or state-listed species and their habitat. The yellow lance has been confirmed as present upstream within the James River, but outside of the study area. The James River bisects the Project study area, flowing from the northwest to southeast, and is crossed by the Project once in the existing ROW between Amherst and Bedford Counties. The Proposed Route spans across the waterbody in the existing ROW and no instream work is anticipated. As such, impacts are not anticipated on the yellow lance, green floater, or James spinymussel in this location. The Company will employ BMPs before, during, and after construction to control erosion and sediment runoff, prevent stream and groundwater flow changes, and reduce adverse impacts on aquatic and riparian habitat.

The Company will coordinate with the USFWS, VDWR, and VDCR as needed during the environmental permitting phase of the Project.

Natural Heritage Resources

On behalf of the Company, ERM submitted the Project to VDCR-DNH for review. In a letter dated January 16, 2026, the VDCR completed a review of the Project study area (see Attachment 2.G.1). VDCR-DNH concluded that the Project will not affect any documented state-listed insects or plants and does not cross any State Natural Area Preserves, CS, or SCS. However, the Project study area contains ecological cores.

Ecological cores ("cores") are areas of 100-acres or more of contiguous natural land cover associated with areas of high ecological value. They are ranked from C1 (Outstanding) to C5 (General). Smaller areas of continuous interior cover (i.e., 10 to 99 acres), called habitat fragments, support ecological cores and provide similar functions and values. As part of its official review, VDCR-DNH found that the Project intersects ecological cores of rank C5 (general ecological integrity). No ecological cores ranked C1 or C2 are within the Project study area. The Project crosses three cores, which are all ranked C5, collectively encompassing about 1.0 acres.

The Proposed Route crosses all C5 cores in the existing ROW. These ecological cores are summarized in Table G-2.

Table G-2 **Abert – Reusens Transmission Improvements Project** **VDCR Ecological Cores Crossed by the Proposed Route**						
Ecological Core Rank	**Ecological Core ID**	**Total Core Acreage**	**Total Acres of New ROW Crossed**	**Total Acres of Existing ROW Crossed**	**Existing Condition**	**Location of Core Crossing**
Outstanding (C1)	NA	NA	NA	NA	NA	NA
Very High (C2)	NA	NA	NA	NA	NA	NA
High (C3)	NA	NA	NA	NA	NA	NA
Moderate (C4)	NA	NA	NA	NA	NA	NA
General (C5)	59328	243	NA	0.4	Mostly forested; northern portion is surrounded by residential areas.	Within existing ROW.
	59418	178	NA	0.2	Mostly forested; fragmented by some existing residences.	Within existing ROW.
	59283	175	NA	0.4	Mostly forested; some clearing in the northern portion.	Within existing ROW.
Total	**NA**	**NA**	**NA**	**1.0**	**NA**	**NA**

NA = Not applicable

Construction and maintenance of the new transmission line facilities could have minimal impacts on wildlife; however, impacts on most species will be short-term in nature, and limited to the period of construction. For impacts on wildlife habitat (forested, agricultural, open space, and open water/waterbodies), see Section 2.K. No other NHRs (habitat of rare, threatened, or endangered species, unique or exemplary natural communities, or significant geological formations) were identified within the Project study area by the VDCR. New and updated information is continually added to VDCR's Biotics database. The Company will plan to re-submit Project information for an update on this natural heritage information if the scope of the Project changes and/or six months have passed before this information is utilized.

The Company will work with the appropriate jurisdictional agencies to minimize impacts on ecological cores and protected species during the Project's environmental permitting phase.

H. Erosion and Sediment Control

The Company submits their erosion and sediment control specifications for construction and maintenance of electric utility lines annually to the VDEQ for all upcoming projects. The

approved erosion and sediment control specifications will be implemented for all transmission facility construction related to the Project, which includes, but is not limited to, transmission line construction, ROW clearing, structure erection, substation upgrades inside the existing fence, construction and use of existing access roads, when practicable. In addition, a site-specific erosion and sediment control plan will be prepared for the Project as required by the VDEQ.

I. Archaeological, Historic, Scenic, Cultural, or Architectural Resources

ERM conducted a Stage I Pre-Application Analysis (the "Pre-App") of potential impacts on cultural resources for the Proposed Route in accordance with the Virginia Department of Historic Resources' ("VDHR") "Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia" ("Guidelines"). A copy of the Pre-App, which was provided to VDHR at the time of filing, is included as Attachment 2.I.1. The analysis identified and considered previously recorded resources within the following study tiers as specified in the Guidelines:

- National Historic Landmark ("NHL") properties located within a 1.5-miles radius of the route centerline.

- National Register of Historic Places ("NRHP")-listed properties, NHLs, battlefields, and historic landscapes within a 1.0-miles radius of the route centerline.

- NRHP-eligible and -listed properties, NHLs, battlefields, and historic landscapes within a 0.5-miles radius of each route centerline.

- Qualifying architectural resources and archaeological sites located within the ROW for the route.

Information on cultural resources within each of these study tiers was obtained from the Virginia Cultural Resources Information System ("VCRIS"). Table I-1 summarizes the eight aboveground historic resources that were identified within the VDHR study tiers for the Proposed Route. The Project is anticipated to have no more than a minimal impact on three resources and no impact on five resources. The Company will continue to work with the VDHR to minimize impacts on cultural and historic resources.

TABLE I-1 Abert – Reusens Transmission Improvements Project Resources in VDHR Tiers for the Proposed Route				
Buffer (miles)	**Resource Category**	**VDHR #**	**Description**	**Impact**
1.0 to 1.5	National Historic Landmarks	NA	NA	NA
0.5 to 1.0	National Register Properties (Listed)	009-0043	Hope Dawn	None
		118-0224	Virginia Episcopal School	None
		118-5240	Presbyterian Orphans Home	None
	Battlefields and Rural Historic Districts	NA	NA	NA
0.0 to 0.5	National Register – Eligible	118-0218	Reusens Dam	None
		118-5546	CSX Railroad	None
0.0 (within ROW)	National Register Properties (Listed)	009-5283	Bowling Eldridge House	Minimal
	Locally Significant	118-5717	Buckley House	Minimal
		005-5336	Bethel/Salt Creek	Minimal

NA = Not applicable due to absence of resource

The Pre-App also considered the potential effects to archaeological resources. However, none were identified adjacent to or within the Proposed Route ROW.

An analysis of the eight aboveground historic resources is provided in Attachment 2.I.1.

J. Chesapeake Bay Preservation Areas

The Project study area encompasses the City of Lynchburg, Amherst County, and Bedford County, which are not in the Tidewater Virginia area as established by the Code of Virginia Article 2.5, § 62.1-44.15:68 and therefore, do not contain Chesapeake Bay Preservation Areas.

K. Wildlife Resources

Forested land, agricultural land, open space, wetlands, and open water features within the Project study area may provide wildlife habitat. Forested areas within the Proposed Route ROW would be cleared of trees generally where the Project proposes three slight diversions from the existing ROW. As such, existing and new ROW areas would be converted to maintained herbaceous vegetation, which would eliminate forest habitat and cover but may provide edge habitat or open space for other species. Waterbody habitat crossed by the Proposed Route would be spanned with impacts to aquatic species limited to any temporary construction impacts associated with forested vegetation clearing adjacent to the waterbody and the elimination of riparian buffer benefits (erosion control, water filtration, habitat, and temperature control through shading). Impacts on agricultural land and open space would

be limited to structure placement if required and vegetation maintenance; the function of the land use would otherwise remain the same.

The Chesapeake Bay Land Use Land Cover dataset (2024) was used to quantify land use and land cover classifications impacted by the Proposed Route. See Section 2.D and Attachment 2.D.1 for the delineation methodology and the location of the desktop-delineated wetlands and waterbodies.

The ROW of the Proposed Route crosses mostly developed land (approximately 30.4 acres) and forested land (approximately 15.1 acres) with a smaller amount of open land (approximately 5.8 acres) and open water (approximately 1.6 acres), but no agricultural land. The Proposed Route crosses five NHD-mapped waterbodies in or near the existing ROW.

L. Recreation, Agricultural, and Forest Resources

The Project study area encompasses predominantly developed (residential) and forested lands in Amherst and Bedford Counties and the City of Lynchburg. The James River also bisects the study area. The Proposed Route, between the Abert and Reusens Substations, will be constructed within or near the existing 100-foot-wide ROW to minimize new impacts on recreational, agricultural, and forest resources.

Recreation

There are no local public or state parks, designated wilderness areas, or game lands within 0.25 miles of the Proposed Route. The nearest local park, Amherst County's Monacan Park, is about 0.7 miles west of the Project and adjacent to the James River at Monacan Park Road. At the nearest location, the Proposed Route uses the existing ROW.

The Virginia Scenic Rivers Act seeks to identify, designate, and protect rivers and streams that possess outstanding scenic, recreational, historic, and natural characteristics of statewide significance for future generations. The Project crosses the James River within the existing ROW; however, this section of the river is not a state-designated scenic river. Approximately 0.2 miles downstream and east of where the Project crosses the river, the James River is designated as a Blueway.

Overall, the Proposed Route is anticipated to have minimal impacts on recreation resources.

Agricultural and Forest

The Chesapeake Bay LULC Database provides detailed, high-resolution, 1-meter spatial classification maps across the entire watershed and adjacent counties. The Proposed Route crosses approximately 14.9 acres of forested land, approximately 34.3 acres of open land

(which includes the existing ROW), and no agricultural lands. According to the United States Department of Agriculture's NRCS Soil Survey Geographic Database data, the Proposed Route crosses approximately 22.8 acres of farmland of statewide importance and approximately 3.4 acres of prime farmland soil. Nevertheless, impacts on agricultural land from the Project are expected to be minimal as the permanent loss of soils or farmable land would be generally limited to the structure foundation locations. Most of the proposed rebuilt structures will be near the existing locations. As the ROW has been in use since the 1960s, it is not expected that the Project will permanently impact farmland, as most farming uses currently co-exist with the transmission line.

The Virginia Agricultural and Forestal Districts Act provides for the creation of conservation districts designed to conserve, protect, and encourage the development and improvement of a locality's agricultural and forested lands. According to the Virginia Department of Forestry ("VDOF"), there are no Virginia Agricultural and Forestal Districts crossed by or within 0.25 miles of the Project.

Under the Virginia Open-Space Land Act, any public body can acquire title or rights to real property to provide means of preservation of open-space land. Most easements created under the Virginia Open-Space Land Act are held by the Virginia Outdoors Foundation ("VOF"), but any state agency is authorized to create and hold an open-space easement. Such conservation easements are designed to preserve and protect open space and other resources and must be held for no less than five years in duration and can be held in perpetuity. According to the VDCR's Managed Conservation Lands Database and the Protected Areas Database of the United States, there are no easements held by the VOF or Virginia Natural Area Preserves crossed by the Project or within 0.25 miles of the Project. The Company solicited input from the VOF and received a response on August 12, 2025 confirming no existing or proposed VOF easements are near the Project. Additionally, there are no existing VDOF conservation easements crossed by or within 0.25 miles of the Project area according to their publicly available database.

About 89% of the total length of the Proposed Route is within the existing ROW. In areas of new tree clearing, the Company's tree clearing methods use the VDOF's BMPs for water quality.

Specific sections of the BMPs that are pertinent to transmission line clearing operations include:

- Equipment Maintenance and Litter
- Harvest Closure (rehabilitation of the ROW after construction)
- Revegetation of Disturbed Areas

The Company will utilize the above BMPs for the Project. Further discussion of ROW clearing, rehabilitation and maintenance can be found in Section II.A.7 of the Response to Guidelines in Volume 1 of the Application.

M. Use of Pesticides and Herbicides

When herbicides are used to maintain the Company's transmission ROW, they are registered with the USEPA and with the Virginia Department of Agriculture and Consumer Services. All herbicides will be used in accordance with label and manufacturer directions. Regarding herbicide applications (additionally, see Section II.A.7 of the SCC Response to Guidelines in Volume 1 of the Application):

- Herbicides will not be applied when rainfall is imminent, during rainfall, or within one day of large rain events (usually greater than one centimeter) that result in soil moisture capacity occurring above field capacity.

- Buffer zones will be maintained around streams, ponds, karst features, springs, wetlands, and water supply wells in accordance and compliance with herbicide label and manufacturer directions.

- In karst features and channelized drainage ways (perennial or intermittent) draining to a karst feature, wetland-approved herbicides shall be used in accordance with label and manufacturer directions.

N. Geology and Mineral Resources

The Project study area is within the Piedmont geologic province, which lies between the mountainous Blue Ridge province to the west and the terraced slopes of the Coastal Plain province to the east. Piedmont is characterized by rolling topography, thick soils, and heavily weathered bedrock primarily caused by the region's humid climate. The geologic terranes of the province are relatively complex; many of the rock units are separated by faults and contain various igneous and metamorphic histories. Based on review of the Geologic Map of Virginia, the Project is within a Mesozoic Culpeper basin situated in the Piedmont Lowlands between the Blue Ridge and Western Piedmont-Potomac Terranes.

ERM reviewed publicly available data from the Virgina Department of Energy Mineral Mining Map, USGS topographic quadrangle, and recent digital aerial photography to identify mineral resources in the Project study area. Based on the review, there are no active mines within 0.25 miles of the Proposed Route. The closest inactive mine resource site lies 0.8 miles west of the Project and on the west side of the James River. The Project is anticipated to have no impact on mineral resources.

O. Transportation Infrastructure

Road and Railroad Crossings

The Proposed Route crosses a CSX Railroad in the existing ROW at the James River crossing location. The Company will coordinate with CSX Railroad during the permitting phase of the Project.

The Proposed Route will be constructed within or near the existing ROW and will cross existing roadways at or near existing crossing locations. The road network in the Project study area includes local roads as listed in Table O-1.

Table O-1
Abert – Reusens Transmission Improvements Project
Roads Crossed by the Project

Road Name	Locality	Lanes at Crossing	Crossing Type
Crab Creek Road	Amherst County	2	Perpendicular
Salt Creek Road	Amherst County	2	Perpendicular
Ruth Drive	Amherst County	2	Perpendicular
Monacan Park Road	Amherst County	2	Perpendicular
Riverwood Drive	Amherst County	2	Perpendicular
Burgess Road	Amherst County	2	Perpendicular
Fox Hill Road	Bedford County	2	Perpendicular
Fox Meadows Road	Bedford County	2	Perpendicular
Old Trents Ferry Road	City of Lynchburg	2	Perpendicular

Based on a review of publicly available county and VDOT planning information, including the Amherst County, Bedford County, and City of Lynchburg Transportation Plans, there are no planned roadway construction and transportation improvement projects within 0.25 miles of the Project.

Temporary closures of roads and or traffic lanes could be required during construction of the Project. The Company will coordinate with Amherst County, Bedford County, City of Lynchburg, and VDOT to avoid impacts on roads crossed by the Project. No long-term impacts on transportation infrastructure are anticipated. The Company will comply with VDOT requirements for access to the ROW from public roads. At the appropriate time, the Company will obtain the necessary VDOT permits as required and comply with permit conditions.

The Company will work with Amherst County, Bedford County, the City of Lynchburg, and VDOT during the environmental permitting phases of the Project to determine the extent of land use permits and traffic control plans, as needed.

Airports

The Federal Aviation Administration ("FAA") is responsible for overseeing air transportation in the United States. The FAA manages air traffic in the United States and evaluates physical objects that may affect the safety of aeronautical operations through an obstruction evaluation. The prime objective of the FAA in conducting an obstruction evaluation is to ensure the safety of air navigation and the efficient utilization of navigable airspace by aircraft.

ERM reviewed the FAA website to identify public use airports, airports operated by a federal agency or the U.S. Department of Defense, airports or heliports with at least one FAA-approved instrument approach procedure, and public use or military airports under construction within 10.0 nautical miles of the Proposed Route. Table O-2 provides a list of the following airports, which include public airports with FAA-restricted airspace, that are located within 10.0 nautical miles ("nm") of the Proposed Route.

TABLE O-2
Abert – Reusens Transmission Improvements Project
Airports and Heliports within 10 nm of the Proposed Route

Airport Name and FAA Identifier	Use Designation	Approximate Distance and Cardinal Direction from Nearest Project Facility to an Established Airport Reference Point
L G Hospital Heliport (50VA)	Private	2.9 nm southeast
Falwell Airport (W24)	Public	6.0 nm southeast
Lynchburg Regional/ Preston Glenn Field Airport (LYH)	Public	8.2 nm south
Timberdoodle Airport (93VA)	Private	9.0 nm northwest

Distance and cardinal direction measurements were calculated utilizing the route centerline and established airport reference points retrieved from the FAA Airport Data and Information Portal. 'Nearest project facility' may refer to any point along the route centerline that is geographically nearest to the Established Airport Reference Point. Runways and airport property boundaries may be closer to a project component than calculated and presented in Table O-2.

The Project is not anticipated to impact the two private facilities located within 10 nm (L G Hospital Heliport and Timberdoodle Airport). Based on a review of public-use airports, Falwell Airport and Lynchburg Regional Airport are located within 10 nm of the Proposed Route; however, no portion of the Project overlaps these airport's imaginary civil or notification surfaces. The Company will use the FAA's Notice Criteria Tool to review proposed structure locations and identify structures that must be filed with the FAA. The Company will coordinate with the Virginia Department of Aviation and FAA as necessary to obtain all appropriate approvals.

P. Drinking Water Wells

The Company solicited input from the Virginia Department of Health's Office of Drinking

Water regarding the Project in a letter dated July 31, 2025. The agency provided a response on August 25, 2025, and determined that no public groundwater wells and surface water intakes are within one mile and five miles of the Project, respectively. A copy of the response is provided in Attachment D of the Siting Study located in Volume 2 of the Company's Application.

Q. Pollution Prevention

Generally, as to pollution prevention, the Company has a comprehensive environmental management process in place that ensures it is committed to complying with environmental laws and regulations and minimizing adverse environmental impacts.

ATTACHMENTS

Attachment 2.D.1
Desktop Wetland and Stream Delineation Report

ERM

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Virginia Department of Environmental Quality
Office of Environmental Impact Review
Ms. Bettina Rayfield, Manager
P.O. Box 1105
Richmond, Virginia 23218

DATE
May 18, 2026

SUBJECT
Abert – Reusens Transmission Improvements Project

REFERENCE
0766900

Dear Ms. Rayfield:

Environmental Resources Management (ERM), on behalf of Appalachian Power Company ("Company"), conducted a desktop wetland and waterbody review of publicly available information for the proposed Abert – Reusens Transmission Improvements Project in Amherst and Bedford Counties and the City of Lynchburg, Virginia. This delineation and probability assessment was done using desktop resources and methodology. If approved by the Virginia State Corporation Commission ("SCC"), a field delineation is required to verify the accuracy and extent of aquatic resource boundaries. Attachment 1 provides a Project overview map. Attachment 2 depicts the aquatic resource type and Attachment 3 provides the probability within the Project right-of-way ("ROW").

The Company is seeking approval for the following improvements from the SCC:

- Rebuild approximately 4.4 miles of the Company's existing Big Island – Reusens 69-kilovolt ("kV") Transmission Line between the existing Abert Substation in Amherst County and the Reusens Substation in the City of Lynchburg. The transmission line will be rebuilt within or near the existing 100-foot-wide ROW; and
- Upgrade the Abert Substation in Amherst County.

These facilities are collectively referred to as the Project.

The Project is necessary to comply with electric reliability standards and to maintain reliable service in portions of Amherst and Bedford Counties and the City of Lynchburg, Virginia. The Project is also necessary to replace aging infrastructure in which open structural conditions are present along the line.

The purpose of this desktop analysis is to identify and evaluate potential impacts of the Project on aquatic resources (wetlands, streams, creeks, runs, and open water features) in the area. In accordance with the Virginia Department of Environmental Quality ("VDEQ") and the SCC's Memorandum of Agreement, the evaluation was conducted using various data sets that may indicate wetland location and type. This report is being submitted to the VDEQ as part of the VDEQ Wetland Impacts Consultation.

This assessment did not include field investigations required for wetland delineations, as defined in the U.S. Army Corps of Engineers ("USACE") Wetland Delineation Manual (Environmental Laboratory, 1987) and the 2012 Regional Supplement to the USACE Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0).

PROJECT STUDY AREA AND PROPOSED ROUTE

The Project Study Area was developed encompassing the Project endpoints (the existing Abert and Reusens Substations) and includes the section of the 69-kV line to be rebuilt with a 1.0-mile buffer on each side. The Study Area consists primarily of forested and residential areas around Nikonha Lane, Monacan Park Road, and Burgess Road (Amherst County), Fox Hill Road (Bedford County), and Old Trents Ferry Road (City of Lynchburg). The Study Area includes a section of the James River. The Study Area is shown on Attachment 1, Project Overview.

The transmission line to be rebuilt begins at the Company's existing Abert Substation, located off Nikonha Lane in Amherst County, and continues south and southeast for approximately 4.4 miles within or near the existing 100-foot-wide ROW to the existing Reusens Substation, located off Old Trents Ferry Road in the City of Lynchburg. The Project will also cross the James River in the existing ROW.

The Proposed Route is approximately 4.4 miles in length and requires approximately 7.2 acres of new ROW in three locations. The first diversion occurs near the Abert Substation in which the Proposed Route diverts south of the existing centerline between proposed structures 432-23A and 432-20A, totaling approximately 5.6 acres of new ROW in Amherst County. The second diversion occurs at Fox Hill Road between proposed structures 432-10A and 432-8A, totaling approximately 0.2 acres of new ROW in Bedford County. The third diversion occurs at Judith Creek between proposed structures 432-6A and 432-3A, totaling approximately 1.4 acres of new ROW in Bedford County and City

of Lynchburg. All proposed new ROW is contiguous to the existing ROW, as certain areas of the existing line are proposed to be shifted based on environmental, cultural, and constructability constraints.

DESKTOP EVALUATION METHODOLOGY

The study evaluates the ROW of the Proposed Route as identified above. Data sources used for this review include the following, each of which is described briefly below:

- USA National Agriculture Imagery Program ("NAIP") Imagery: Color Infrared NAIP Infrared Images, Virginia, 1-meter pixel resolution (NAIP 2023);
- Environmental Systems Research Institute ("ESRI") World Elevation Terrain 2-foot and 10-foot contours (ESRI et al. 2017);
- ESRI World Imagery from 2021 (ESRI et al. 2021);
- ESRI World Elevation Terrain from 2025 (ESRI et al. 2025);
- Google Earth aerial imagery (Google LLC 2025);
- National Wetland Inventory ("NWI") maps from the U.S. Fish and Wildlife Service ("USFWS") online data mapping portal (USFWS 2025);
- The National Hydrography Dataset ("NHD") Plus High Resolution (USGS 2023); and
- Soil Survey Geographic Database ("SSURGO") soils data from the U.S. Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS 2025).

NATURAL COLOR AND INFRARED AERIAL PHOTOGRAPHY

Recent natural color aerial photography was used to provide a visual overview of the Project area and to assist in evaluating current conditions (NAIP 2023). Infrared aerial photography was used to identify the potential presence of wetlands based on signatures associated with the levels of reflectance. For example, areas that are inundated with water appear very dark (almost black) due to the low level of reflectance in the infrared spectrum. The presence of these dark colors can be used as a potential indicator of hydric or inundated soils that are likely associated with wetlands.

TOPOGRAPHIC MAPS

Recent ESRI world topographic maps show the topography of the area as well as other important landscape features such as forest cover, development, buildings, agricultural areas, streams, lakes, and wetlands (ESRI et al. 2017, 2021, 2025).

USFWS NATIONAL WETLAND INVENTORY MAPPING

NWI maps provide the boundaries and classifications of potential wetland areas as mapped by the USFWS (USFWS 2025). NWI data is based primarily on aerial photo interpretations with limited ground-truthing and may represent incorrect boundaries or wetland cover types. NWI data can be unreliable in some areas, especially in forested landscapes, where aerial photography is used as the major data source. The classifications of the majority of the NWI polygons in the study area appear to be accurate based on a review of the cover types observed in aerial photography. All the wetland types referenced in this assessment are referred to as "assigned wetland cover types" regardless of whether the cover type was modified from a NWI classification.

USDA-NRCS SOILS DATA

Soils in the study area were identified and assessed using the SSURGO database, which is a digital version of the original county soil surveys (USDA-NRCS 2025). The attribute data within the SSURGO database provides the proportionate extent of the component soils and their properties (e.g., hydric rating) for each soil map unit. The soils in the study area were grouped into three categories based on the hydric rating of the component soils within each map unit: hydric, partially hydric, and non-hydric. Hydric soils were defined as those where the major component soils, and minor components in some cases, are designated as hydric. Hydric components in these map units account for more than 80 percent of the map unit. Partially hydric soils include map units that only contain minor component soils that are designated as hydric. The partially hydric map units in the Project area contain 10 percent or less hydric soils. The remaining map units do not contain any component soils that are designated as hydric. Areas mapped as hydric or partially hydric have a higher probability of containing wetlands than areas with no hydric soils.

USGS NATIONAL HYDROGRAPHY DATASET

The National Hydrography Dataset ("NHD") dataset contains features such as lakes, ponds, streams, rivers, and canals (USGS 2023). The waterbodies mapped by the NHD appeared generally consistent with those visible in aerial photography.

PROBABILITY ANALYSIS

ERM used a stepwise process to identify probable wetland areas along the Proposed Route, as follows:

- Infrared and natural color aerial photography was used in conjunction with topographic maps and soils maps to identify potential wetland areas. Boundaries were assigned to the areas that appeared to exhibit wetland signatures based on this review and a cover type was determined based on aerial photo interpretation. For the purpose of the study, these areas are referred to as Interpreted Wetlands.
- To further determine the probability of a wetland occurring within a given location, the Interpreted Wetland polygon shape files were digitally layered with the NWI mapping and soils information from the SSURGO database.
- The probability of a wetland occurring was assigned based on the number of overlapping data layers (i.e., indicators of potential wetland presence) that occurred in a particular area.

The criteria assigned to each probability are outlined in Table 1.

TABLE 1: CRITERIA USED TO RANK THE PROBABILITY OF WETLAND OCCURRENCE

Probability	Criteria
High	Areas where layers of hydric soils, Interpreted Wetlands, and NWI data overlap
Medium/High	NWI data overlaps hydric soils; or NWI data overlaps Interpreted Wetlands with or without partially hydric soils; or Hydric soils overlap Interpreted Wetlands
Medium	Interpreted Wetlands with or without overlap by partially hydric soils
Medium/Low	Hydric soils only; or NWI data with or without overlap by partially hydric soils

Low	Partially hydric soils only
Very Low	Non-hydric soils only

WETLAND AND WATERBODY CROSSINGS

The desktop analysis provides a probability of wetland and waterbody occurrence within the Proposed Route, with wetlands classified based on the Cowardin classification system described below:

- Palustrine Emergent ("PEM") wetlands – characterized by erect, rooted, herbaceous hydrophytes (i.e., aquatic plants) and woody species less than 3 feet in height, excluding mosses and lichens;
- Palustrine Scrub-Shrub ("PSS") wetlands – characterized by woody vegetation, excluding woody vines, approximately 3 to 20 feet in height;
- Palustrine Forested ("PFO") wetlands – characterized by woody vegetation, excluding woody vines, approximately 20 feet or more in height and 3 in. or larger diameter at breast height ("DBH");
- Palustrine Unconsolidated Bottom ("PUB") open waters – characterized by bottom substrate particles smaller than stones (less than 10 inches) covering greater than 25 percent of the area, with plants covering less than 30 percent of the area; and
- Riverine (streams): channels containing periodically or continuously moving water (USFWS 2013).

As stated above, field delineations were not performed and would be required to verify the accuracy and extent of aquatic resource boundaries.

RESULTS

Table 2 presents the results of the probability analysis. A range of wetland occurrence probabilities are reported from very low to high. The probability of wetland occurrence increases as multiple indicators begin to overlap towards the "high" end of the spectrum. The medium, medium-high, and high probability categories are the most reliable representation of in-situ conditions, due to overlapping data sets, and these categories

are reported in the summary below as a percentage of the total acreage of the Proposed Route. Summaries are provided in the sections following the table. Attachment 2 depicts the type and Attachment 3 depicts the probability of medium or higher interpreted wetlands displayed on color base map images.

TABLE 2: SUMMARY OF THE PROBABILITIES OF WETLAND AND WATERBODY OCCURRENCE WITHIN THE PROPOSED ROUTE ROW

Probability	Total Within ROW (acres)[a]	Wetland and Waterbody type (acres)					
		PEM	PFO	PSS	PUB	Riverine	Interpreted Upland
Proposed Route							
High	1.55	NA	NA	NA	NA	1.55	NA
Medium/High	0.08	0.05	NA	NA	NA	0.03	NA
Medium	1.79	1.53	NA	NA	0.01	0.25	NA
Medium/Low	0.27	NA	NA	NA	NA	0.25	0.02
Low	NA	NA	NA	NA	NA	NA	NA
Very Low	49.15	NA	NA	NA	NA	NA	49.15

NA: Not applicable due to absence of wetland or waterbody type within the proposed ROW.

[a] Wetland, Riverine, PUB, and Interpretated Upland acreages within this table are inclusive of new and existing ROW.

WATERSHED

Watersheds are used to define the geographic area within the boundaries of drainage divides throughout the country. For purposes of classifying watersheds, the United States is divided into hydrologic units in four levels—regions, subregions, accounting units, and cataloging units—which may contain an entire or part of a watershed. Each level is identified by a hydrologic unit code ("HUC"). The first level, 2-digit, is a major geographic area or region containing several rivers or the drainage area of a major river. Subsequent levels encompass progressively smaller areas based on the drainage divides of lower order waterbodies.

The study area is within the following HUC areas:

- The Mid-Atlantic HUC 2-digit (02) region, which discharges into the Atlantic Ocean, Long Island Sound, and the Riviere Richelieu, a tributary of the St. Lawrence River;
- The Lower Chesapeake HUC 4-digit (0208) subregion, which drains about 20,700 square miles from Virginia, Maryland, Delaware, and West Virginia to the Chesapeake Bay;
- The Middle James-Buffalo (02080203) HUC 8-digit watershed, which drains about 2,020 square miles of central Virginia;
- The James River-Harris Creek (0208020303) HUC 10-digit watershed, which drains about 223 square miles of central Virginia; and
- The study area is within the James River-Judith Creek (020802030301) HUC 12-digit watershed, which drains about 33 square miles into the James River (USGS 2025).

Waterbodies within the study area include the James River, Judith Creek, Salt Creek, and numerous unnamed tributaries. All surface waters within the study area flow to the James River, which flows roughly northwest to southeast in proximity to the Project.

WETLAND CROSSINGS

Based on the NWI and aerial imagery, the majority of wetlands are riverine, with the potential for associated PEM fringe wetlands along some streams, especially within the existing ROW. The terrain in the study area is mountainous with numerous ravines and valleys for stream channels, but few areas are likely to encompass large wetland complexes. One manmade pond was marked as an interpreted PUB wetland on the Project. Overall, less than 0.01 acre of interpreted non-riverine wetland are located within newly proposed ROW. Riverine and open waterbody features are discussed in the Waterbody Crossings section.

The length of the ROW for the Proposed Route is approximately 4.4 miles and encompasses a total of approximately 52.9 acres. Approximately 6.5% (approximately 3.4 acres) of the study area has a medium or higher probability of containing wetlands and waterbodies. It should be noted that the existing crossing of the James River accounts for nearly half (approximately 1.6 acres) of this total. Of the remaining

approximately 1.8 acres, approximately 0.3 acres are other riverine features, approximately 1.6 acres are PEM wetland, and less than 0.01 acre is PUB wetland.

TABLE 3: ACREAGE OF HIGH, MEDIUM-HIGH, AND MEDIUM PROBABILITY WETLANDS AND WATERBODIES WITHIN THE PROPOSED ROUTE ROW

Total Within ROW (acres)[a, b, c]	PFO	PSS	PEM	PUB	Riverine	Total
New	NA	NA	<0.01	NA	0.10	0.11
Existing	NA	NA	1.58	0.01	1.74	3.32
Total	NA	NA	1.58	0.01	1.84	3.43

[a] Numbers in this table have been rounded to the hundredths place for presentation purposes; as a result, the totals may not reflect the sum of the addends. Numbers with a value less than 0.005 are represented as <0.01.
[b] Identified via recent and historic aerial imagery, topography, and terrain.
[c] NA = Not applicable due to absence of a wetland type within the ROW.

WATERBODY CROSSINGS

ERM identified and mapped waterbodies in the study area using similar publicly available GIS databases as those used to identify and map wetlands. As described in the Watershed section above, waterbodies within the study area include the James River and its named tributaries. The crossing of the James River, which utilizes the existing 100-foot-wide ROW, encompasses approximately 1.6 acres of the total interpreted waterbody crossings on the Project. The Project crosses named tributaries to the James River including Salt Creek and Judith Creek in or near the existing ROW.

The Project crosses five NHD-mapped waterbodies: the James River, two unnamed tributaries to the James River, Salt Creek, and Judith Creek. Table 4 includes the locations identified in the desktop analysis. One additional NHD-mapped waterbody, Johns Creek, flows into the James River outside of the Project. Although the channel of Johns Creek does not intersect the Project, the NHD flowline associated with Johns Creek does. This NHD flowline was not included in the count of Project waterbody crossings.

TABLE 4: WATERBODIES CROSSED BY THE PROPOSED ROUTE ROW

NHD-Mapped Perennial Streams/Rivers	NHD-Mapped Intermittent Streams/Rivers	NHD-Mapped Perennial Lakes/Ponds	Non-NHD Mapped Waterbodies	Total[a]
4	1	0	38	43

[a] *Identified during desktop analysis*

PROJECT IMPACTS

Avoiding or minimizing new impacts on wetlands and streams was among the criteria used in developing the proposed route for the Project, which will primarily be rebuilt within or adjacent to the existing ROW. To minimize new impacts on wetland areas, the transmission line has been designed to span or avoid wetlands and waterbodies where possible, keeping transmission structures outside of aquatic resources to the extent practicable. Where diversions from the existing ROW are proposed, the ROW of the Proposed Route encompasses approximately less than 0.1 acre of interpreted PEM wetland and approximately 0.1 acre of interpreted riverine features. No PSS or PFO wetlands are anticipated to be crossed by the Project.

Most potential direct impacts on wetlands due to Project construction would be temporary in nature. Matting would be used for construction equipment to travel over wetlands, as appropriate. If a section of line cannot be accessed from existing roads, the Company may need to install a culvert or temporary bridge along the ROW to cross small streams. In such cases, some temporary fill material in wetlands adjacent to the crossings may be required. This fill would be placed on erosion control fabric and removed when work is completed, returning ground elevations to original contours. When reviewing rebuilt transmission lines, a perpendicular crossing of wetland systems are prioritized to minimize direct impacts to these sensitive areas and reduce overall impacts to the watershed.

No change in contours of wetlands and waterbodies, or redirection of the flow of water, is anticipated and the amount of spoil from foundation and structure placement would be minimal. Excess spoil in wetlands generated through foundation construction would be controlled through construction best management practices (e.g., the implementation of erosion and sediment controls).

Required tree removal adjacent to waterbodies would reduce riparian buffer functions such as stream bank stabilization and erosion control, nutrient and sediment filtration, floodwater storage and peak flow reduction, habitat diversity, and water temperature modification from shading. Where the removal of trees or shrubby vegetation occurs within wetlands, the Company would use the least intrusive method reasonably possible to clear the corridor. Vegetation within the ROW would be allowed to return to maintained grasses and shrubs after construction, which would provide some filtration stabilization to help protect waterbodies from pollutants. The Project mostly uses the existing maintained ROW.

SUMMARY

This Desktop Wetland and Waterbody Summary report was prepared in accordance with the Memorandum of Agreement between the VDEQ and the SCC for the purpose of initiating a Wetlands Impact Consultation. Please note that a formal onsite wetland delineation was not conducted as part of this review.

In addition, there is a Project website where the SCC application will be available after filing, as well as maps and discussions about the Project. It can be accessed by going to: AppalachianPower.com/AbertReusens.

If you have any questions regarding this wetland assessment, please contact me by email at Jason.Teschler@erm.com.

Sincerely,

Jason Teschler
Environmental Resources Management

cc: Tyler Emery, AEP

Enclosures: Attachments 1, 2, and 3

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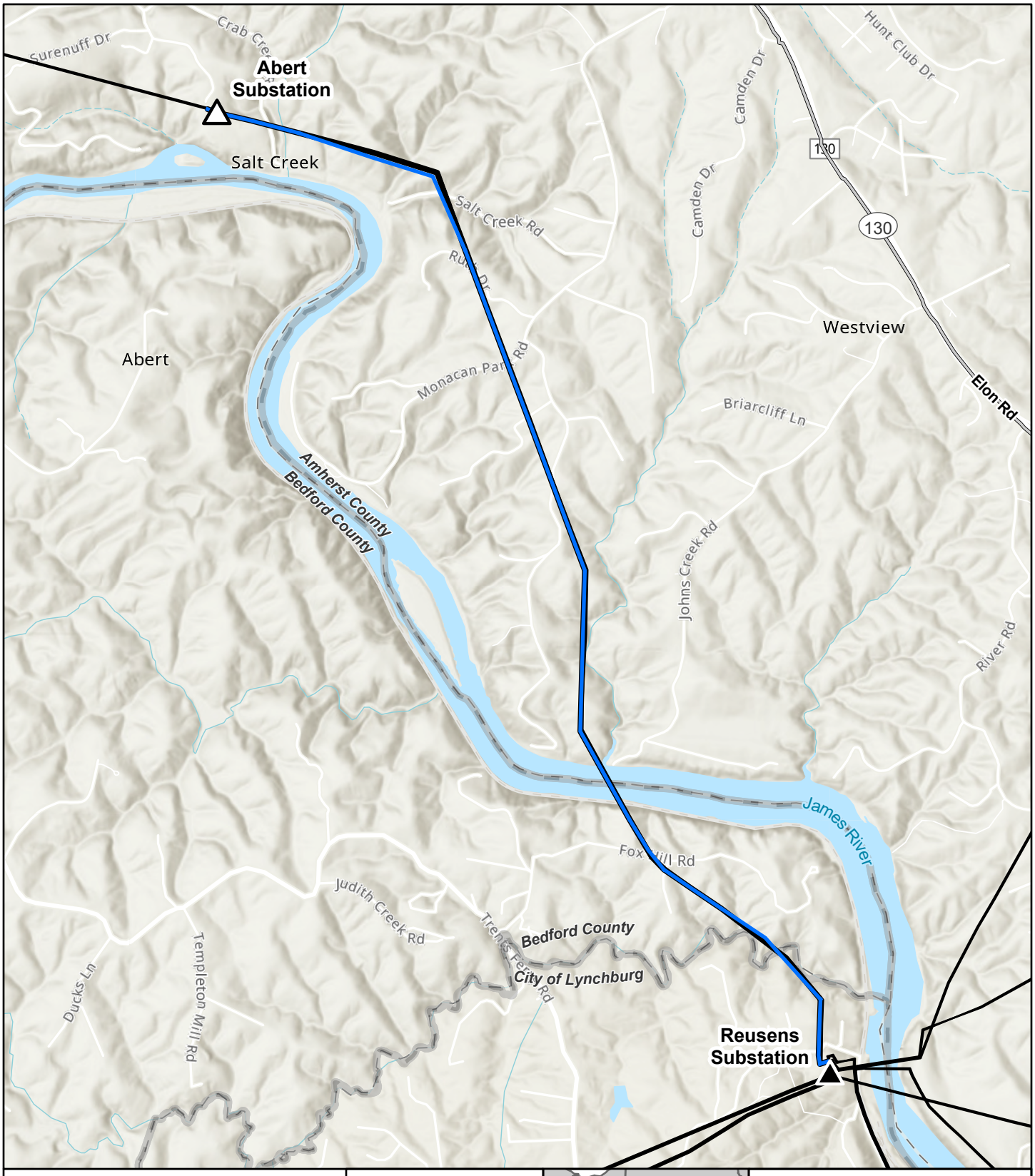
ATTACHMENT 1

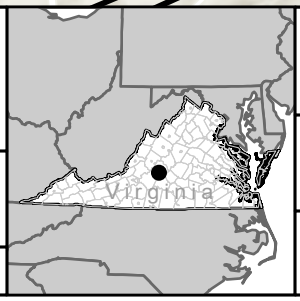


▲ Existing AEP Substation
△ Existing AEP Substation to be Upgraded
Proposed Route
Existing AEP Transmission Line

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 1
Project Overview

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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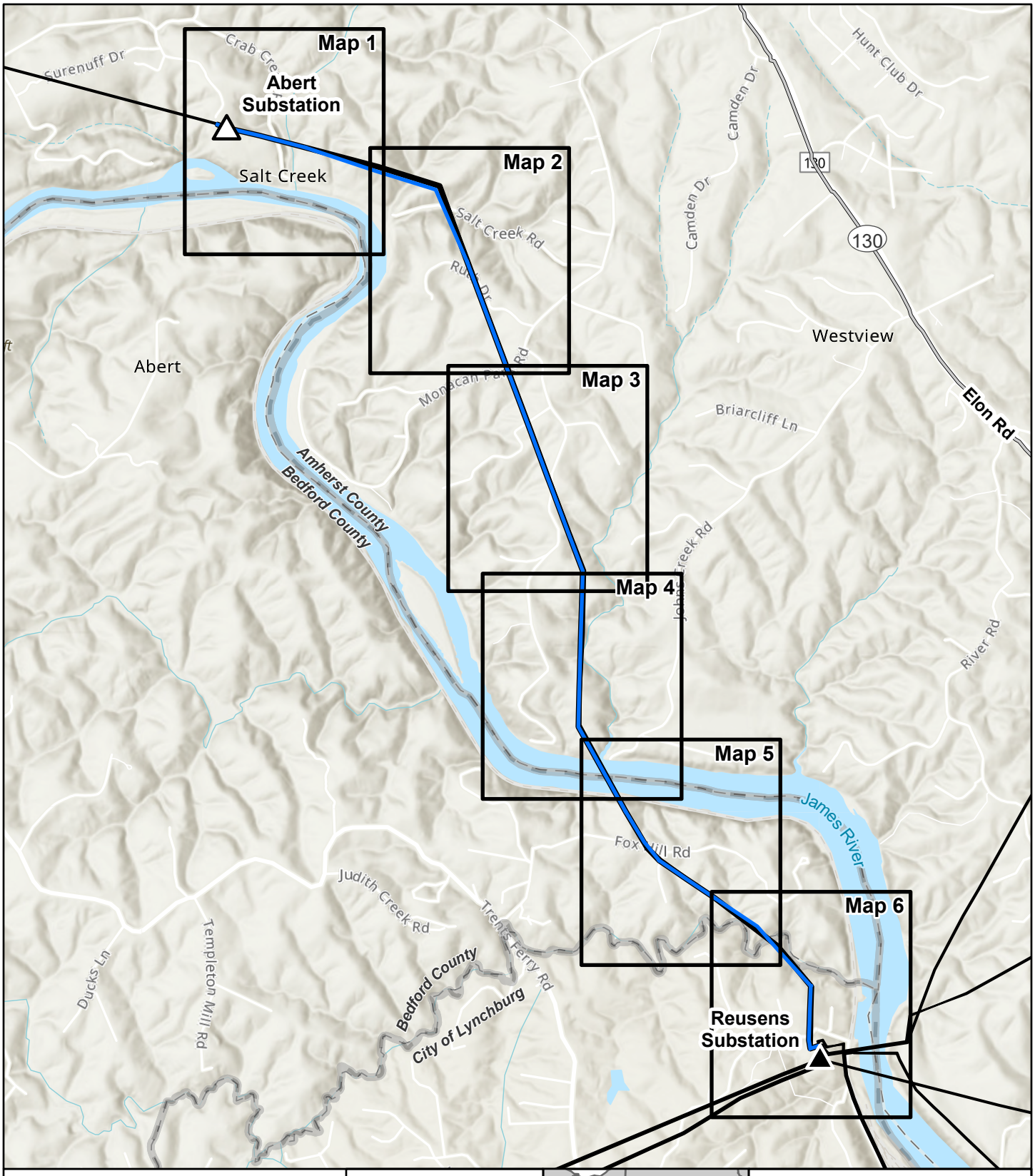
Feet

ATTACHMENT 2

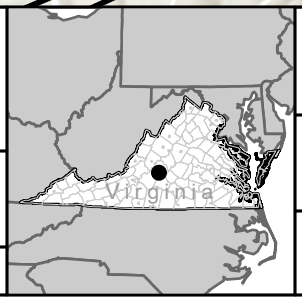


- Map Page
- Existing AEP Substation
- Existing AEP Substation to be Upgraded
- Proposed Route
- Existing AEP Transmission Line

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2
Wetland and Waterbody Cover Type
Index

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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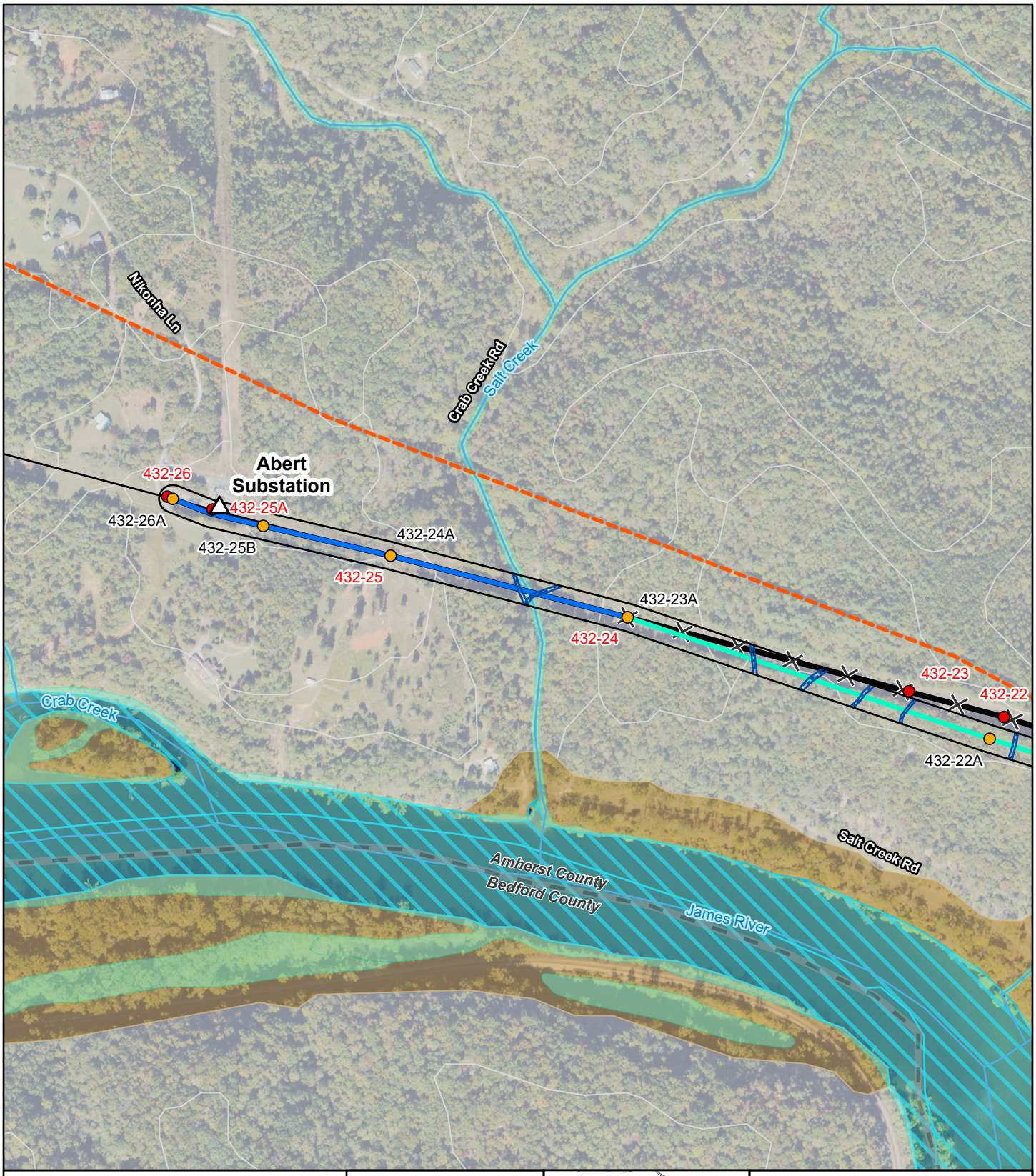
Feet



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- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On New Centerline)
- Proposed Route (On Existing Centerline)
- Existing AEP Transmission Line to be Removed
- Proposed Right of Way
- Existing Gas Line
- Stream (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Partially Hydric Soil
- Water

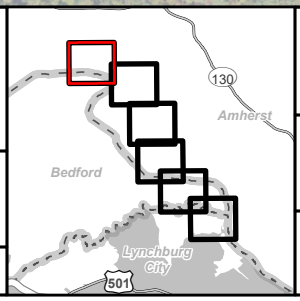
Cover Type

- Riverine

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2
Wetland and Waterbody Cover Type

Map 1 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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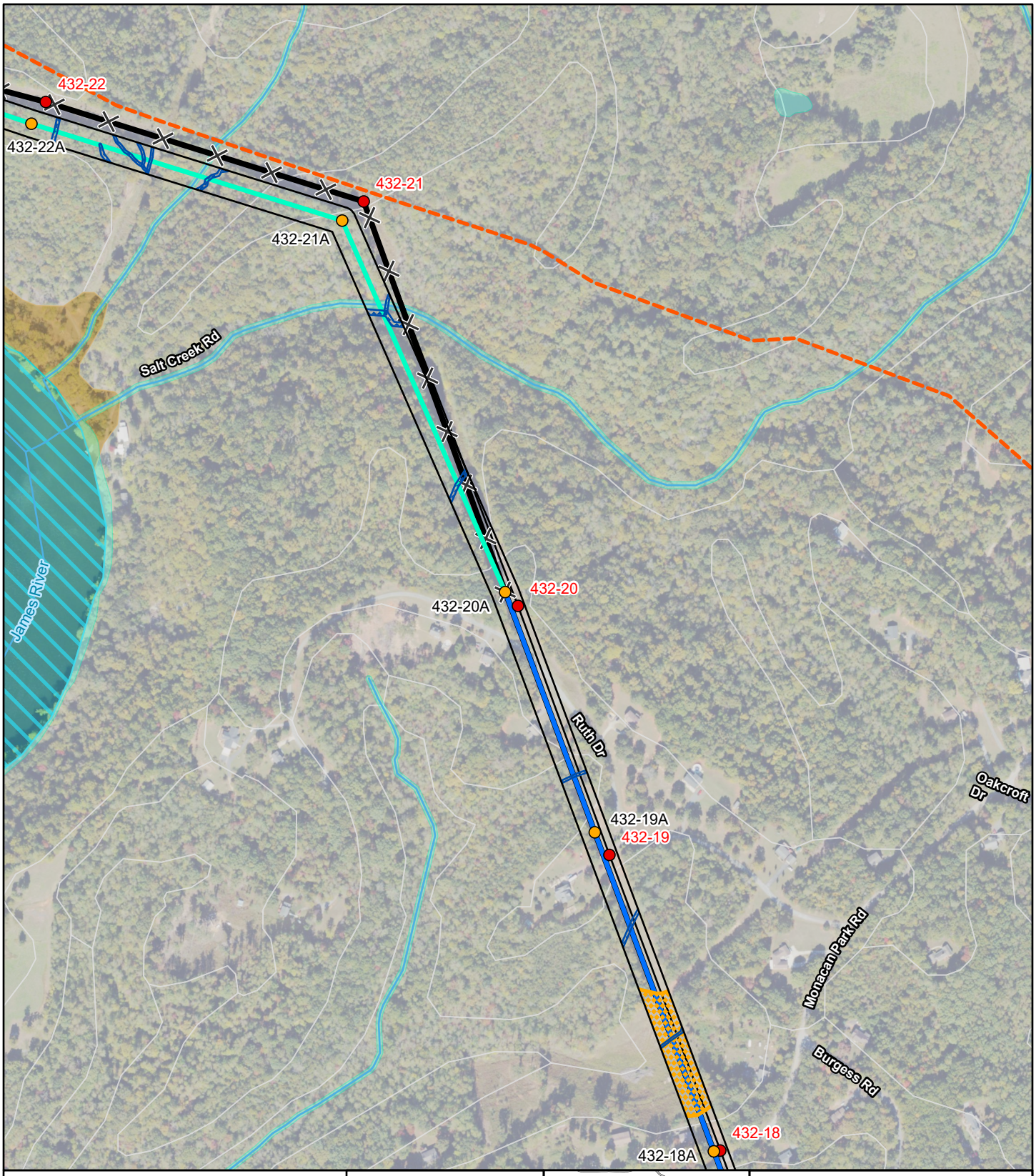
Feet



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- Existing AEP Structure to be Removed
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- Proposed Route (On Existing Centerline)
- Existing AEP Transmission Line to be Removed
- Proposed Right of Way
- Existing Gas Line
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- Wetland (NWI)
- Nonhydric Soil
- Partially Hydric Soil
- Water

Cover Type

- PEM
- Riverine

Amherst and Bedford Counties,
City of Lynchburg
Virginia

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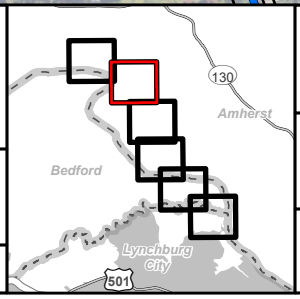
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2
Wetland and Waterbody Cover Type

Map 2 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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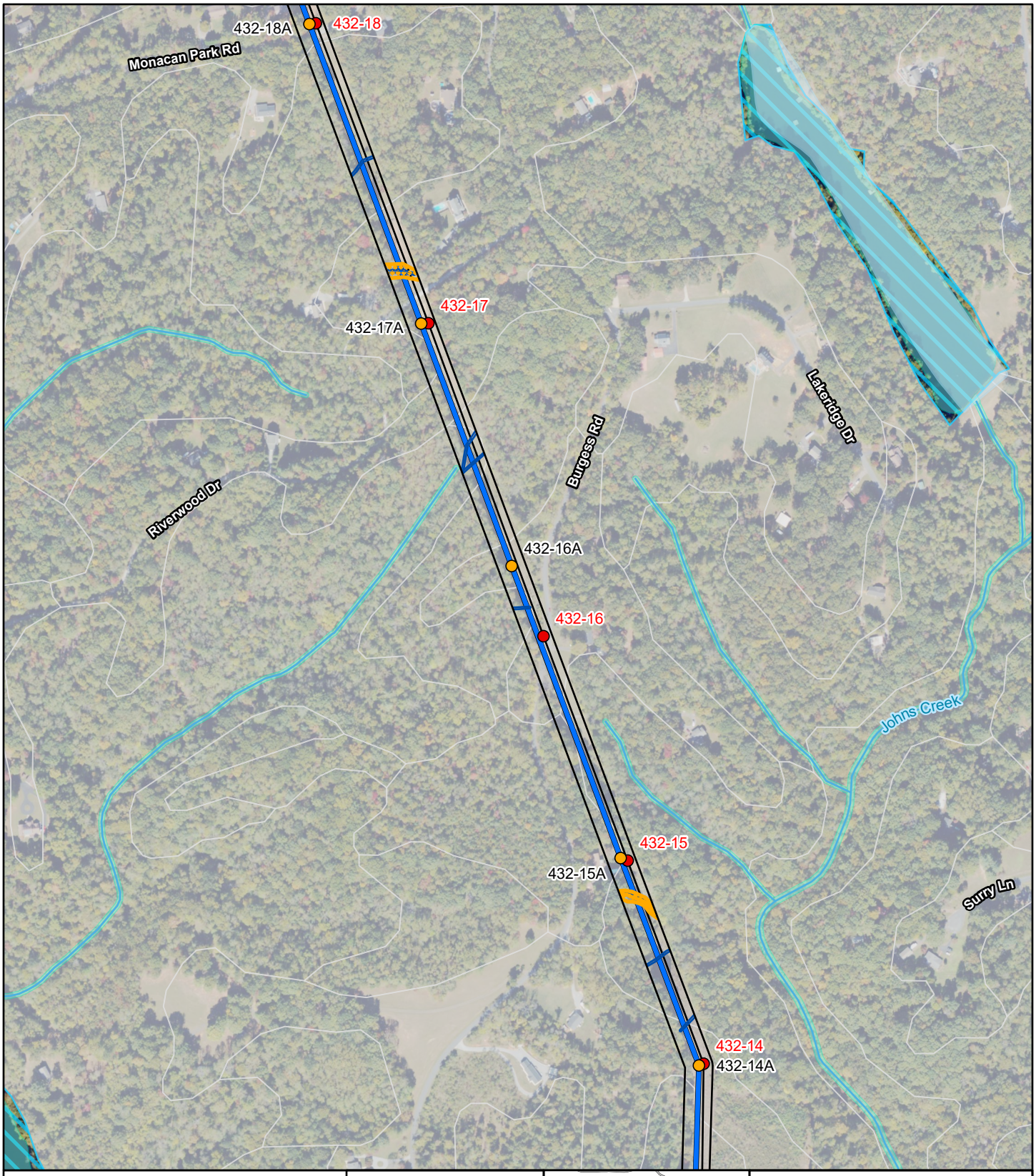
Feet



- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On Existing Centerline)
- Proposed Right of Way
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Water

Cover Type

- PEM
- Riverine

Amherst and Bedford Counties,
City of Lynchburg
Virginia

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Virginia South
FIPS 4502 Feet
North America 1983

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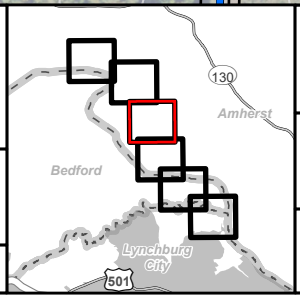

Attachment 2
Wetland and Waterbody Cover Type

Map 3 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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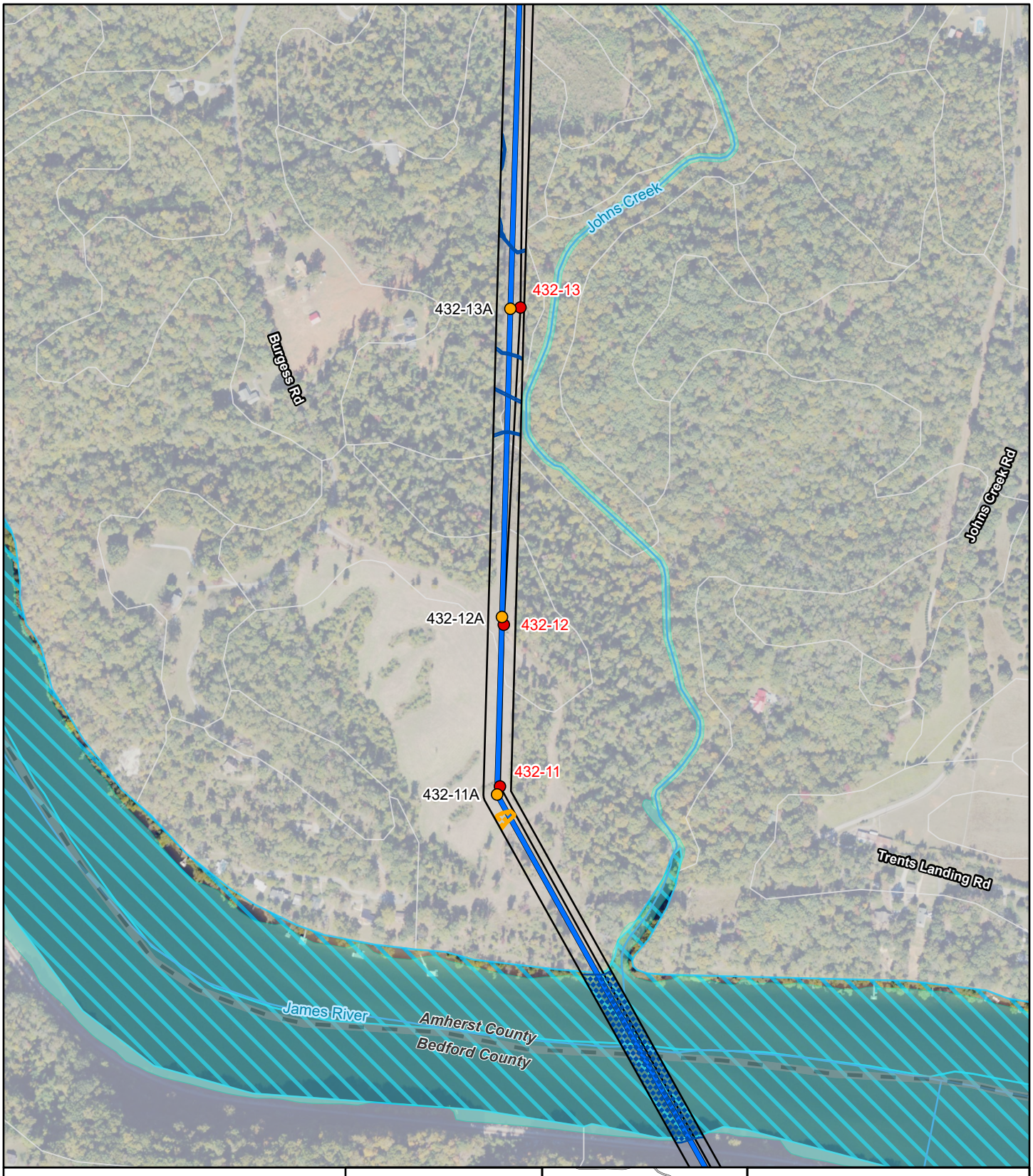
Feet



- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On Existing Centerline)
- Proposed Right of Way
- Stream (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Water

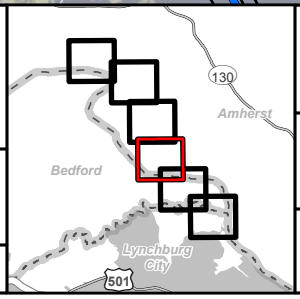
Cover Type

- PEM
- Riverine

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2
Wetland and Waterbody Cover Type

Map 4 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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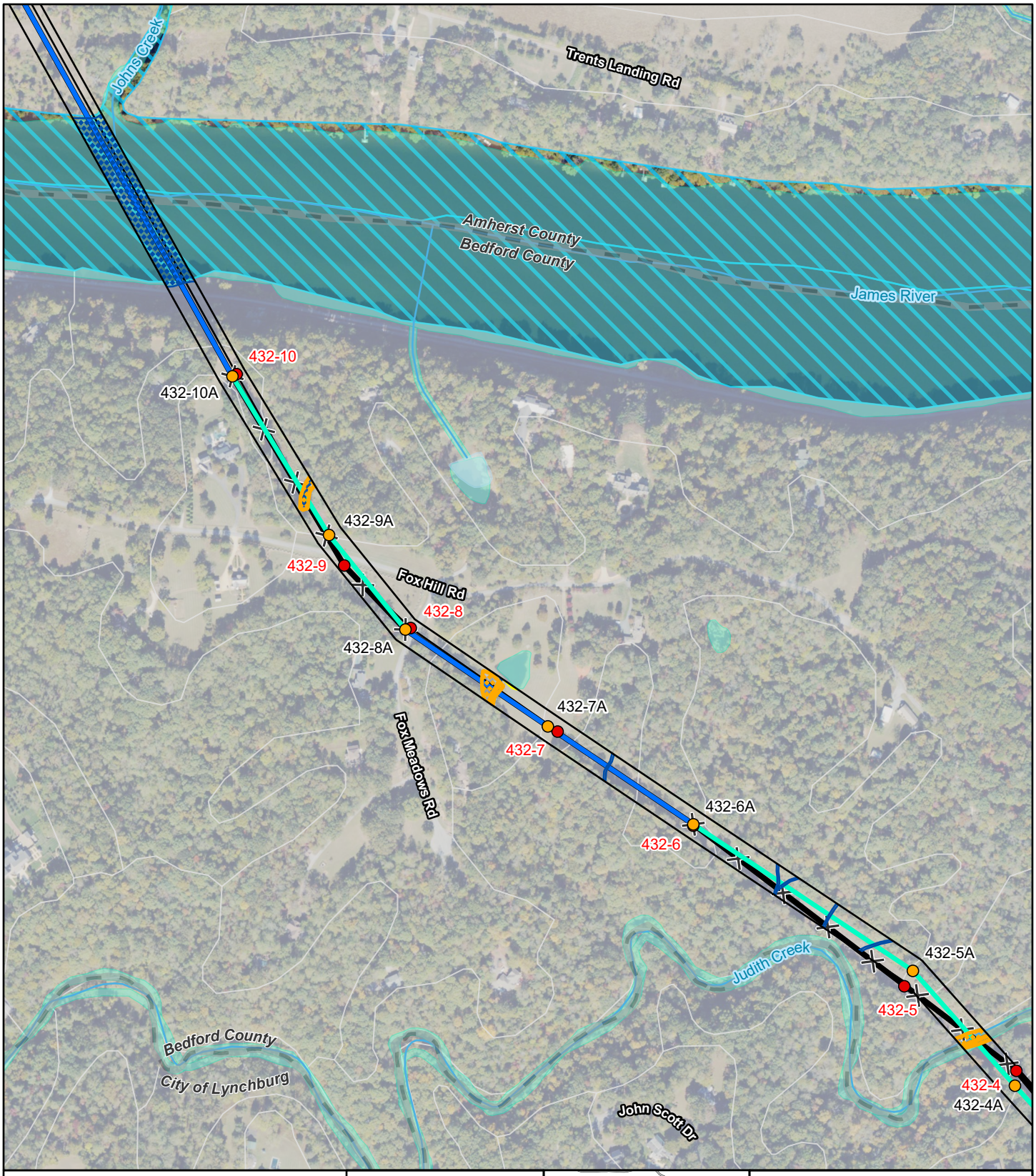
Feet



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- Existing AEP Structure to be Removed
- Proposed Route (On New Centerline)
- Proposed Route (On Existing Centerline)
- Existing AEP Transmission Line to be Removed
- Proposed Right of Way
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Water

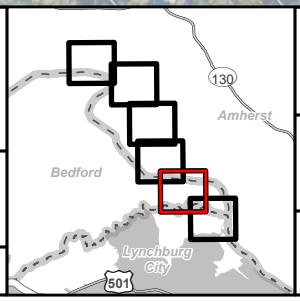
Cover Type

- PEM
- PUB
- Riverine

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2
Wetland and Waterbody Cover Type

Map 5 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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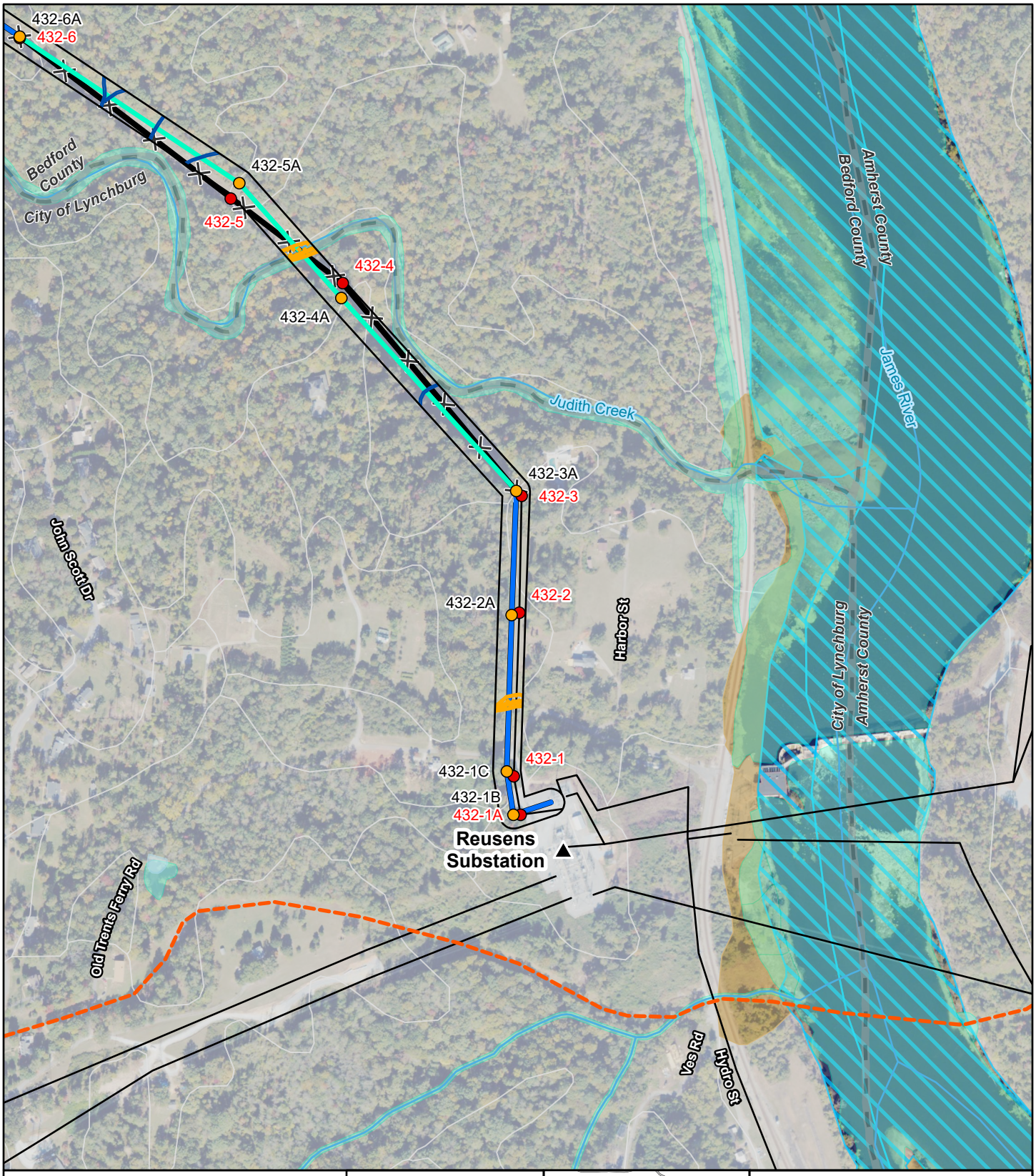


- Existing AEP Substation
- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On New Centerline)
- Proposed Route (On Existing Centerline)
- Existing AEP Transmission Line to be Removed
- Proposed Right of Way
- Existing Gas Line
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Partially Hydric Soil
- Water

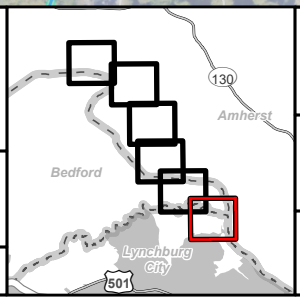
Cover Type

- PEM
- Riverine

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2
Wetland and Waterbody Cover Type

Map 6 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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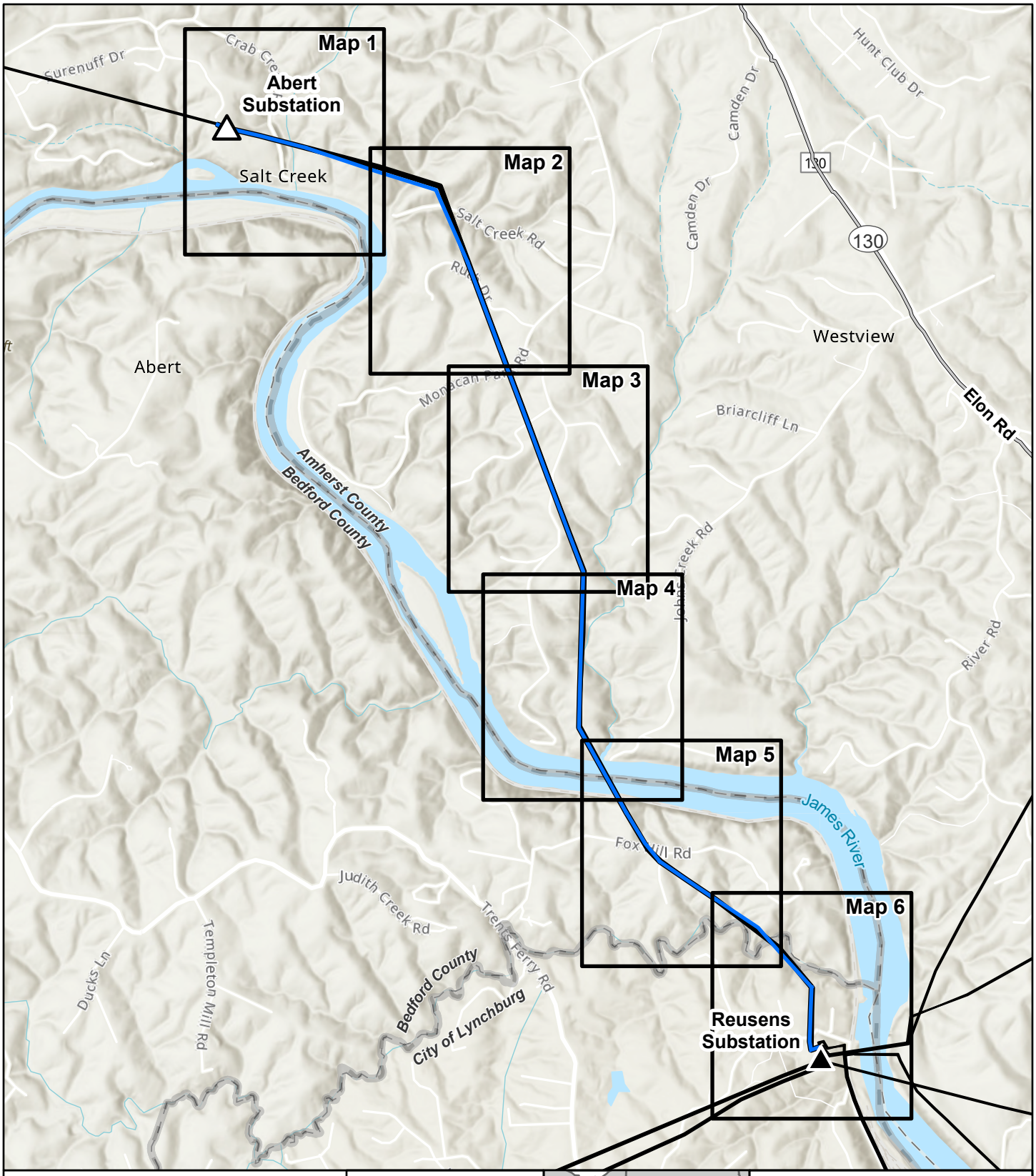
Feet

ATTACHMENT 3

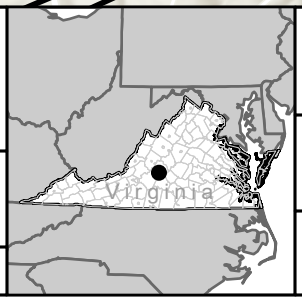


- Map Page
- Existing AEP Substation
- Existing AEP Substation to be Upgraded
- Proposed Route
- Existing AEP Transmission Line

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 3
Wetland and Waterbody Probability
Index

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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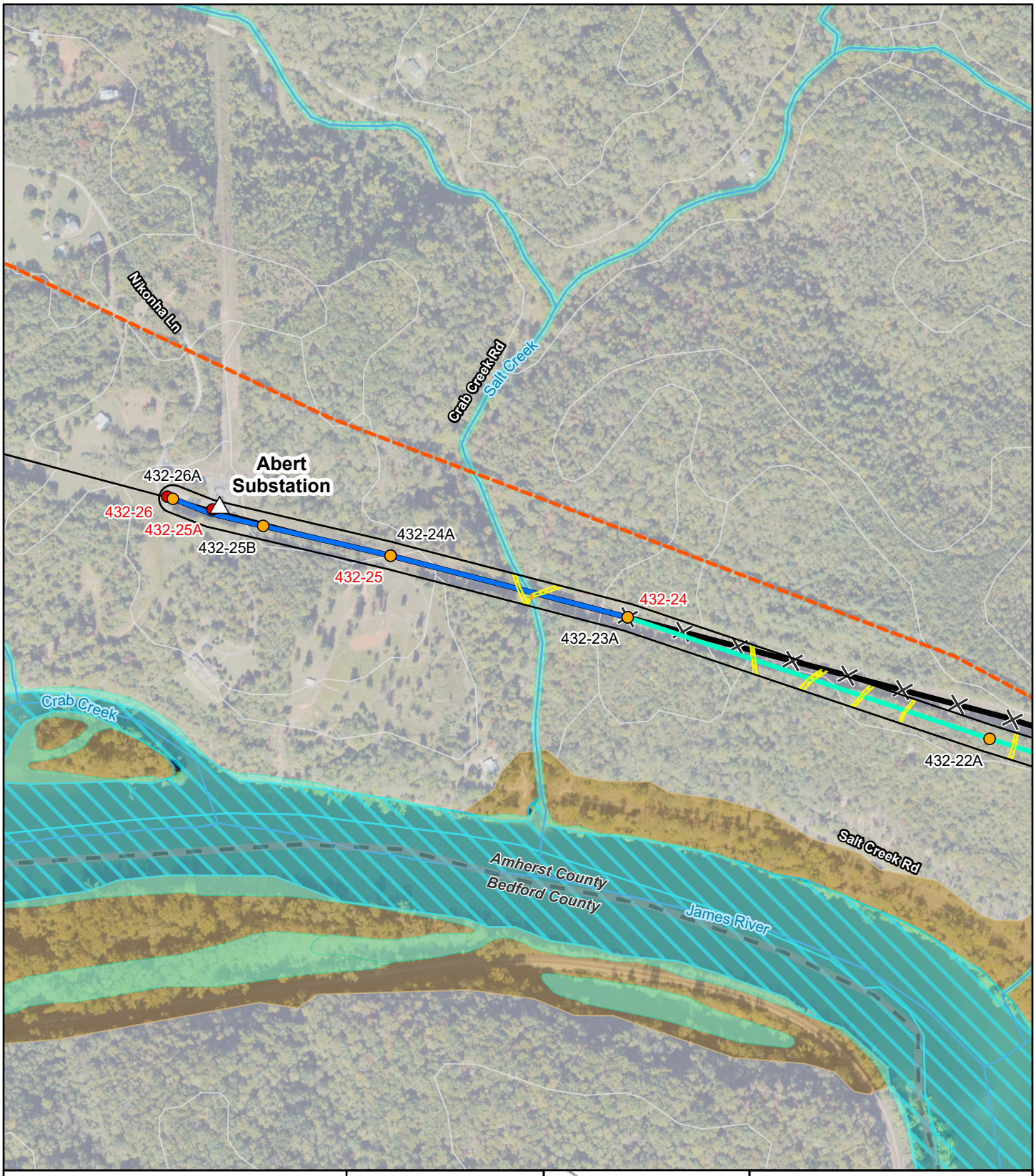
Feet



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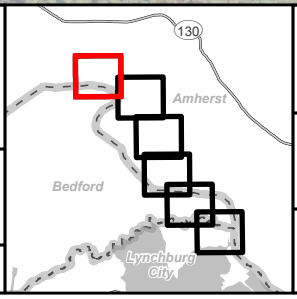
Proposed AEP Structure
Existing AEP Structure to be Removed
Proposed Route (On New Centerline)
Proposed Route (On Existing Centerline)
Existing AEP Transmission Line to be Removed
Proposed Right of Way
Existing Gas Line
Stream (NHD)
Wetland (NWI)
Nonhydric Soil
Partially Hydric Soil
Water

Probability
Medium/High
Medium

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 3
Wetland and Waterbody Probability
Map 1 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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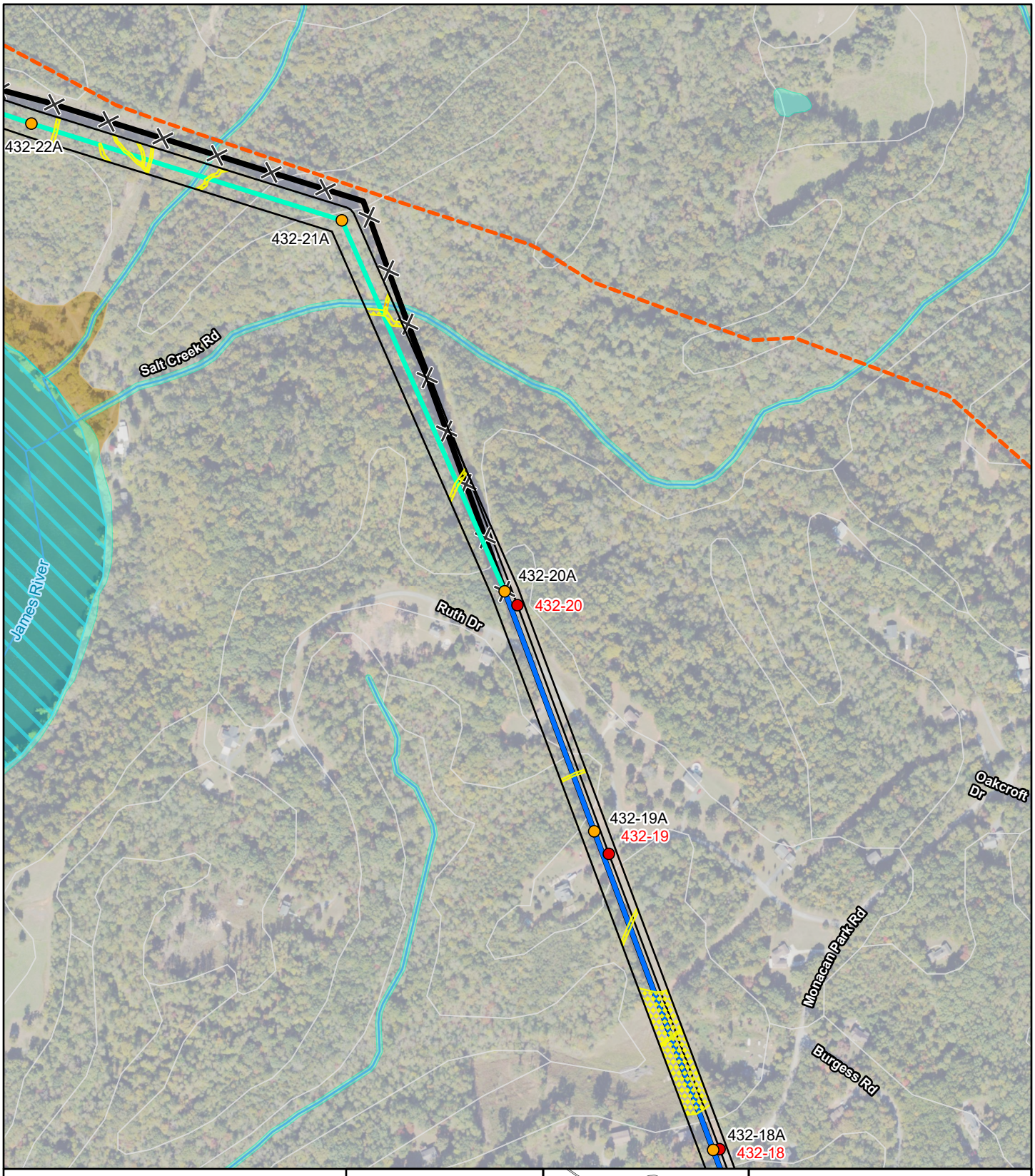
Feet



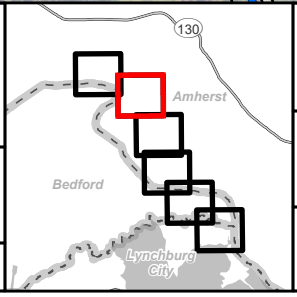
Proposed AEP Structure
Existing AEP Structure to be Removed
Proposed Route (On New Centerline)
Proposed Route (On Existing Centerline)
Existing AEP Transmission Line to be Removed
Proposed Right of Way
Existing Gas Line
Stream (NHD)
Wetland (NWI)
Nonhydric Soil
Partially Hydric Soil
Water

Probability
Medium/High
Medium

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 3
Wetland and Waterbody Probability
Map 2 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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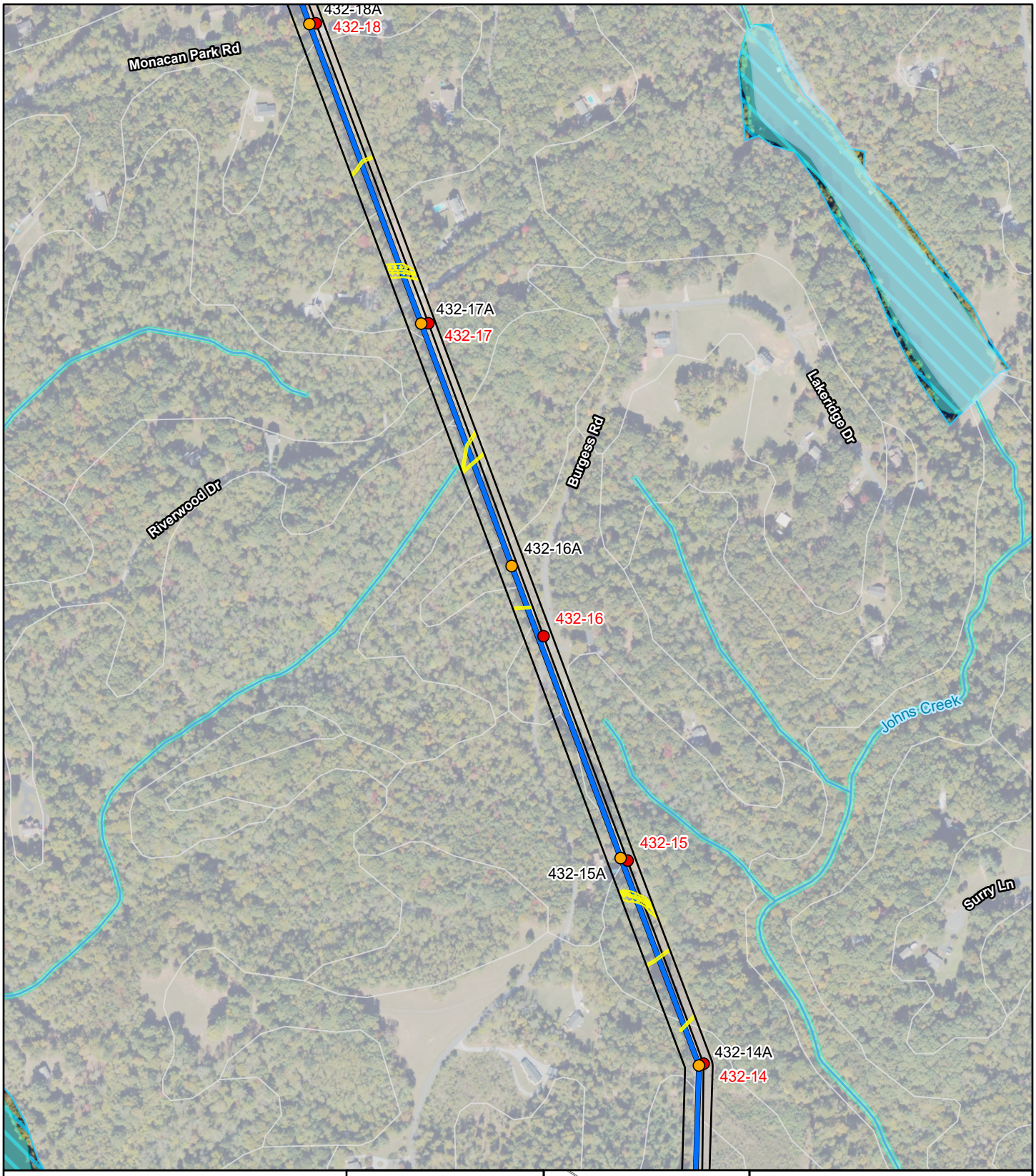
Feet



- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On Existing Centerline)
- Proposed Right of Way
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Water

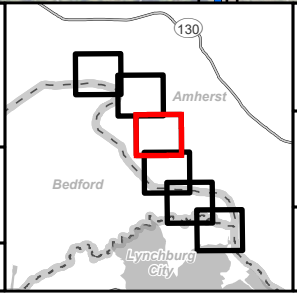
Probability

- Medium

Amherst and Bedford Counties, City of Lynchburg Virginia

NAD 1983 StatePlane Virginia South FIPS 4502 Feet North America 1983

May 2026



Attachment 3
Wetland and Waterbody Probability

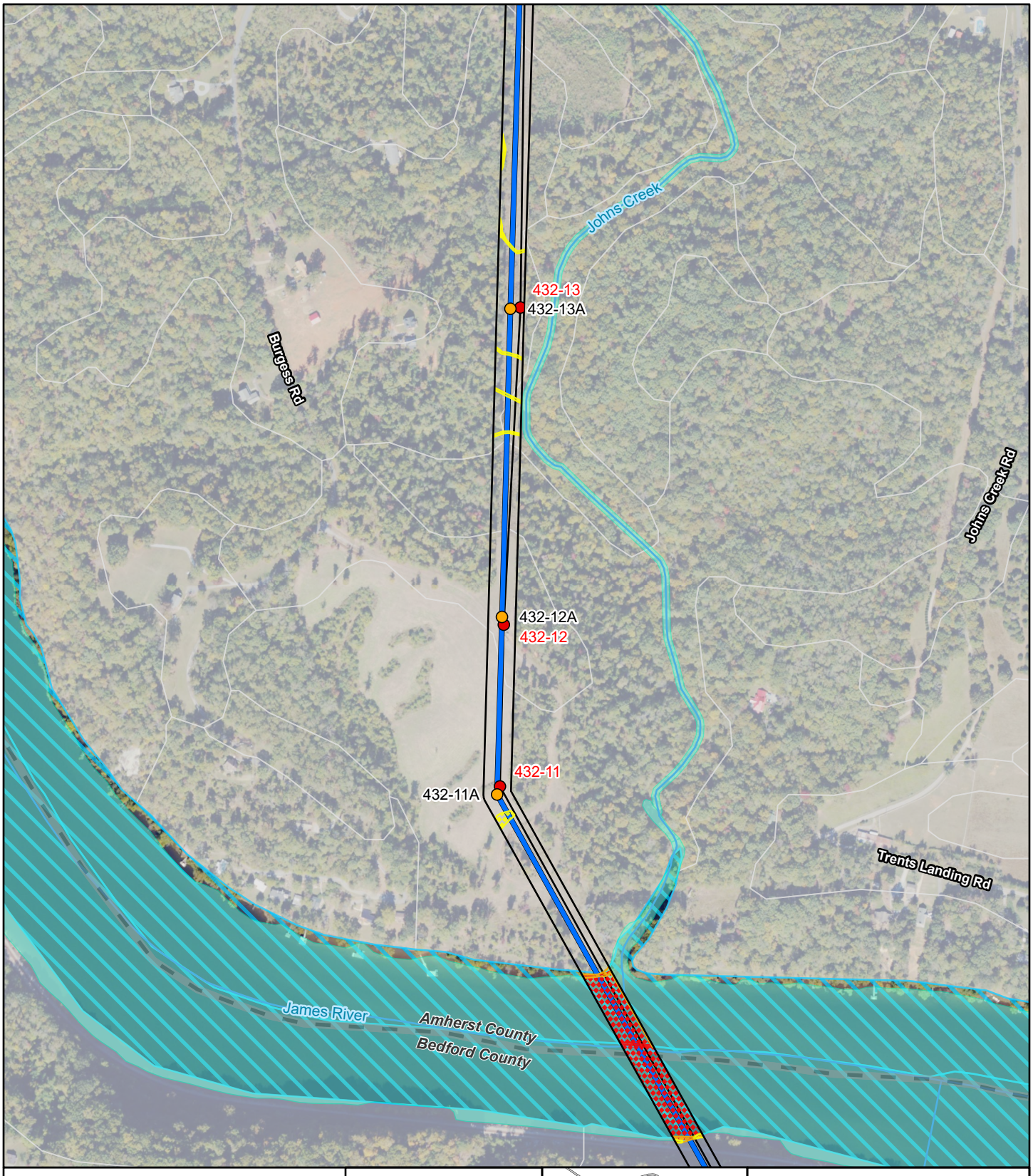
Map 3 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

0 200 400 600 800

Feet



- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On Existing Centerline)
- Proposed Right of Way
- Stream (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Water

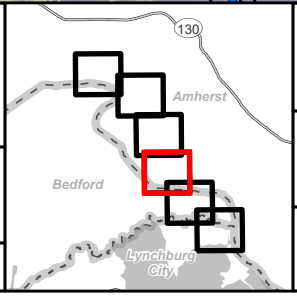
Probability

- High
- Medium/High
- Medium

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 3
Wetland and Waterbody Probability

Map 4 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

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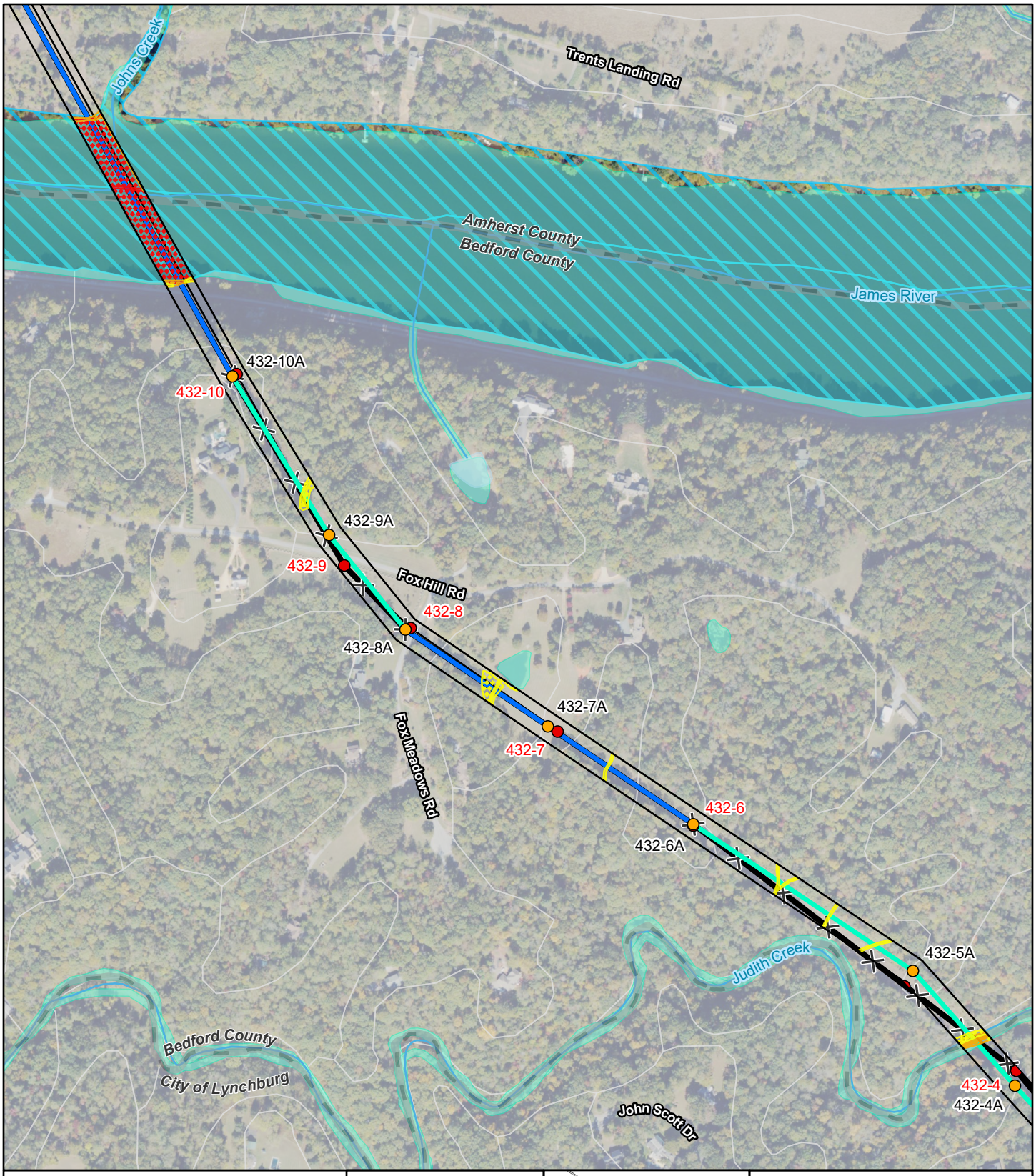
Feet



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- Nonhydric Soil
- Water

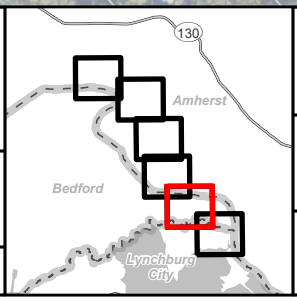
Probability

- High
- Medium/High
- Medium

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



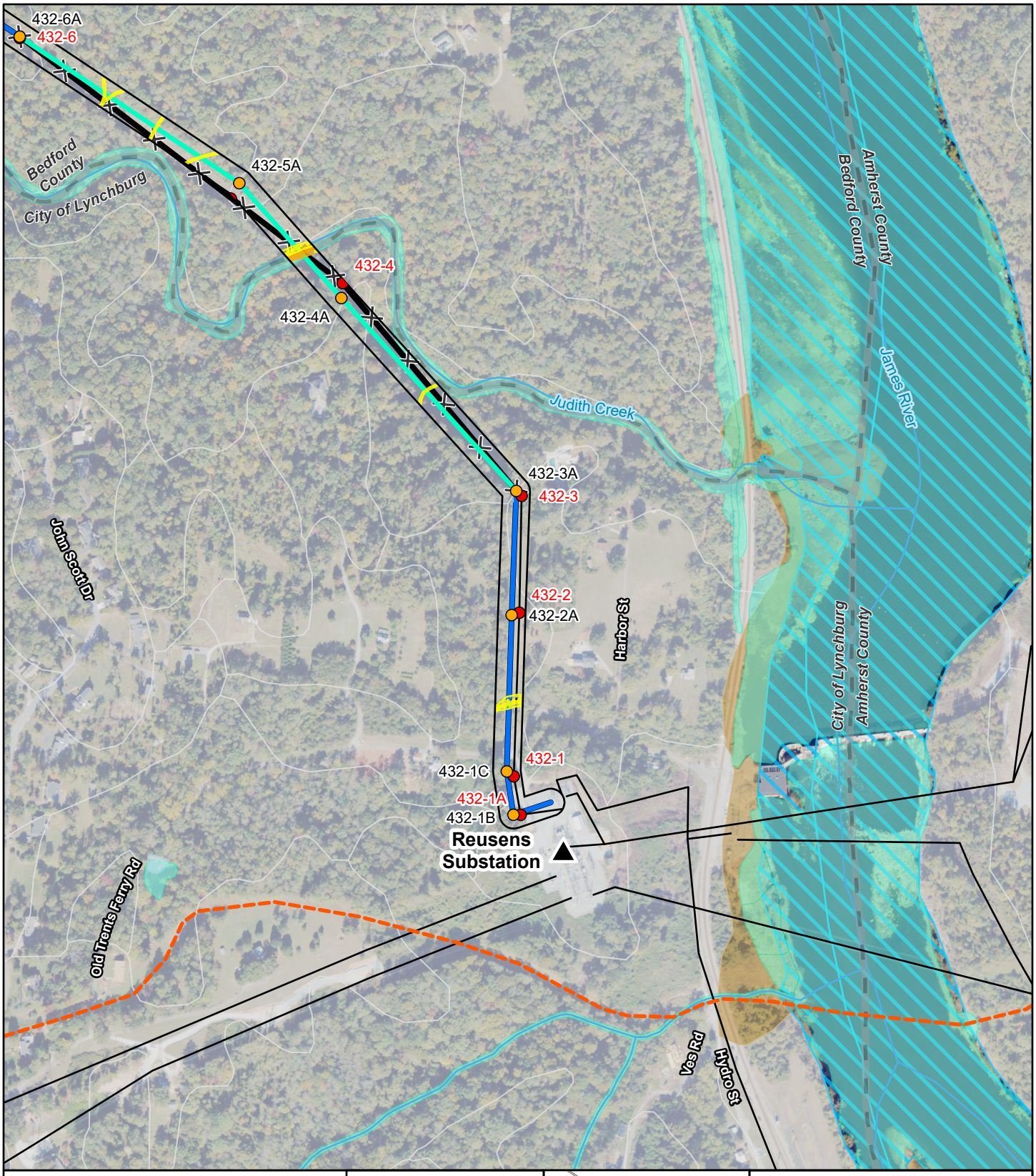
Attachment 3
Wetland and Waterbody Probability

Map 5 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

0 200 400 600 800
Feet



- Existing AEP Substation
- Proposed AEP Structure
- Existing AEP Structure to be Removed
- Proposed Route (On New Centerline)
- Proposed Route (On Existing Centerline)
- Existing AEP Transmission Line to be Removed
- Proposed Right of Way
- Existing Gas Line
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- Nonhydric Soil
- Partially Hydric Soil
- Water

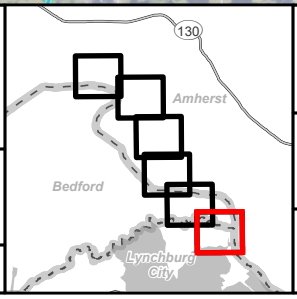
Probability

- Medium/High
- Medium

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 3
Wetland and Waterbody Probability

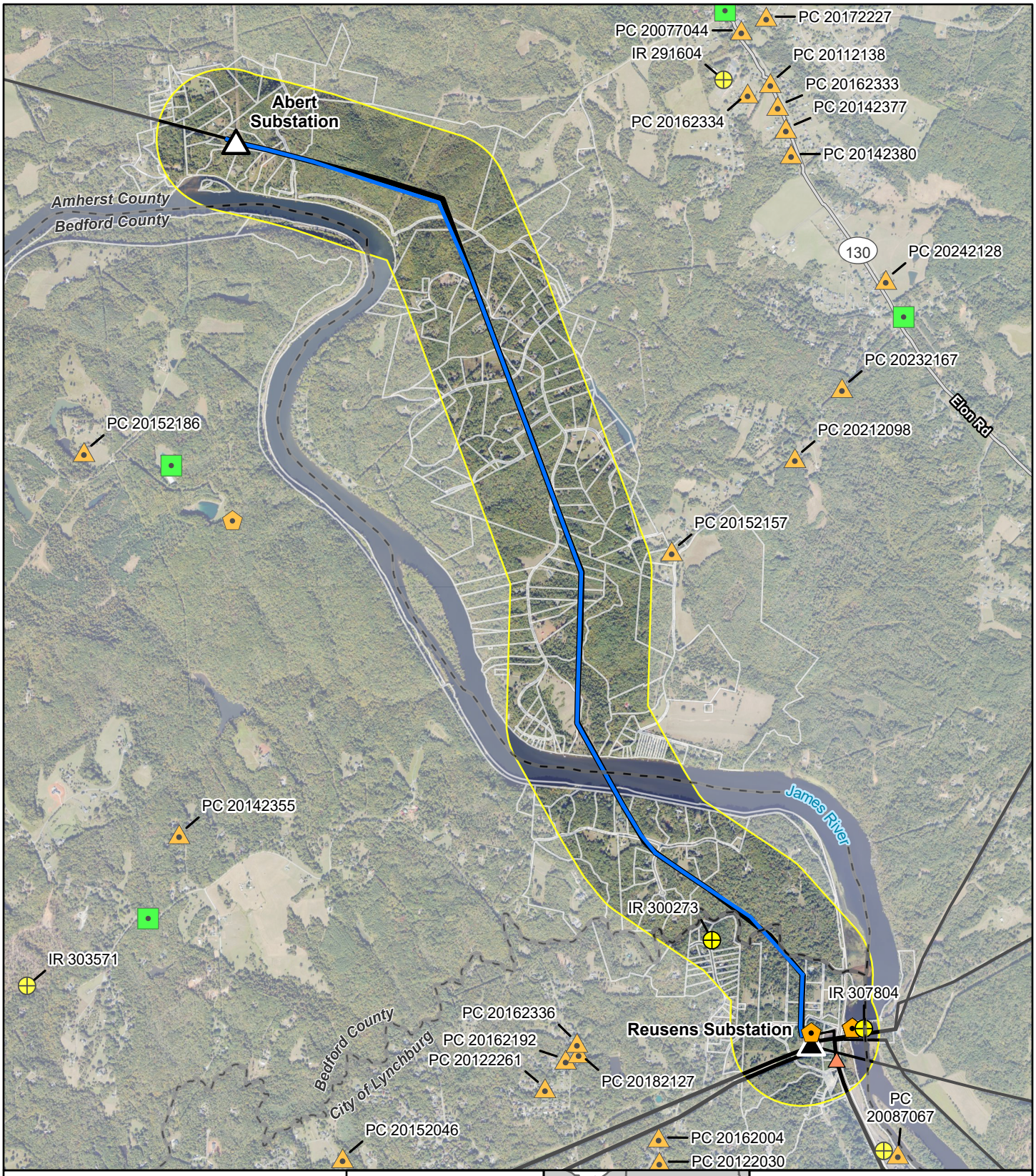
Map 6 of 6

APPALACHIAN POWER
An AEP Company

Abert - Reusens Transmission Improvements Project

0 200 400 600 800
Feet

Attachment 2.F.1
Solid and Hazardous Waste Sites Map



- Existing AEP Substation
- Existing AEP Substation to be Upgraded
- Proposed Route
- Existing AEP Transmission Line
- 0.25 mile Right-of-Way Buffer
- Parcel Boundary

EPA FRS
- RCRA LQG Facility
- RCRA Other Facility
- TRI (Toxic Release Inventory) Facility

VDEQ Contamination Cases

Petroleum Releases
- Closed
- Open

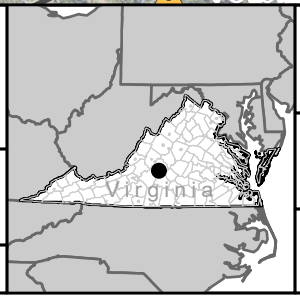
PRePs Reports
- Closed
- Under Investigation

VDEQ Regulated Sites
- Registered Petroleum Tank Facilities
- Solid Waste Permits
- VPDES Outfalls

Amherst and Bedford Counties,
City of Lynchburg
Virginia

NAD 1983 StatePlane
Virginia South
FIPS 4502 Feet
North America 1983

May 2026



Attachment 2.F.1
VDEQ Regulated Facilities and Contamination Sites within 0.25 mile of Project

APPALACHIAN POWER

Abert - Reusens Transmission Improvements Project

0 0.2 0.4 0.6 0.8
Miles

Attachment 2.G.1
USFWS and VDWR Resources

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

January 16, 2026

Briana Cooney
Environmental Resource Management, Inc.
222 South 9th Street, Suite 2900
Minneapolis, MN 55402

Re: 0766900, Albert-Reusens

Dear Ms. Cooney:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100-foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

The project will impact an Ecological Core **(C4)** as identified in the Virginia Natural Landscape Assessment (https://www.dcr.virginia.gov/natural-heritage/vaconvisvnla). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: http://vanhde.org/content/map.

Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

DCR recommends avoidance of impacts to cores. When avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

Furthermore, DCR recommends the development and implementation of an invasive species plan to be included as part of the maintenance practices for the right-of-way (ROW). The invasive species plan should include an invasive species inventory for the project area based on the current DCR Invasive Species List (https://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2023.pdf) and methods for treating the invasives. DCR also recommends the ROW restoration and maintenance practices planned include appropriate revegetation using native species in a mix of grasses and forbs, robust monitoring and an adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of $390.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed at https://services.dwr.virginia.gov/fwis/ or contact Susan Watson at Susan.Watson@dwr.virginia.gov. According to the information currently in our files, the James River, which has been designated by the VDWR as a "Threatened and Endangered Species Water" for the Green Floater (*Lasmigona subviridis*, G2G3/S2/PT/LT) is within the submitted project boundary including a 100-foot buffer. Therefore, DCR recommends coordination with the U.S. Fish and Wildlife Service (USFWS) and Virginia's regulatory authority for the management and protection of this/these species, the VDWR, to ensure compliance with protected species.

The U.S. Fish and Wildlife Service (USFWS) utilizes an online project review process (https://www.fws.gov/office/virginia-ecological-services/virginia-field-office-online-review-process) to facilitate compliance with the Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884) (ESA), as amended. The process enables users to 1) follow step-by-step guidance; 2) access information that will allow them to identify threatened and endangered species, designated critical habitat, and other Federal trust resources that may be affected by their project; and 3) accurately reach determinations regarding the potential effects of their project on these resources as required under the ESA. If you have questions regarding the online review process, please contact virginiafieldoffice@fws.gov.

Should you have any questions or concerns, feel free to contact me at 804-625-3979. Thank you for the opportunity to comment on this project.

Sincerely,

Nicki Gustafson
Natural Heritage Project Review Assistant

Cc: Hannah Schul, VDWR

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694

In Reply Refer To: 01/05/2026 18:01:09 UTC
Project Code: 2026-0032398
Project Name: Abert-Reusens - 0766900

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

PROJECT SUMMARY

Project Code: 2026-0032398
Project Name: Abert-Reusens - 0766900
Project Type: Transmission Line - New Constr - Above Ground
Project Description: This request is a part of a pre-permitting effort to determine feasibility of overhead powerline routes.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.4863962,-79.20531274768224,14z

Counties: Amherst , Bedford , and Lynchburg counties, Virginia

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

CLAMS

NAME	STATUS
Green Floater *Lasmigona subviridis* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7541	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow

appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

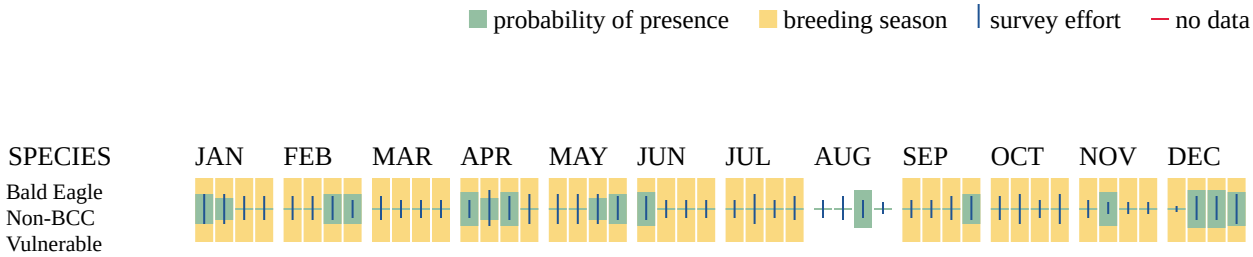
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Cerulean Warbler *Setophaga cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 28 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Chuck-will's-widow *Antrostomus carolinensis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9604	Breeds May 10 to Jul 10
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20

NAME	BREEDING SEASON
Grasshopper Sparrow *Ammodramus savannarum perpallidus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Kentucky Warbler *Geothlypis formosa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Prairie Warbler *Setophaga discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

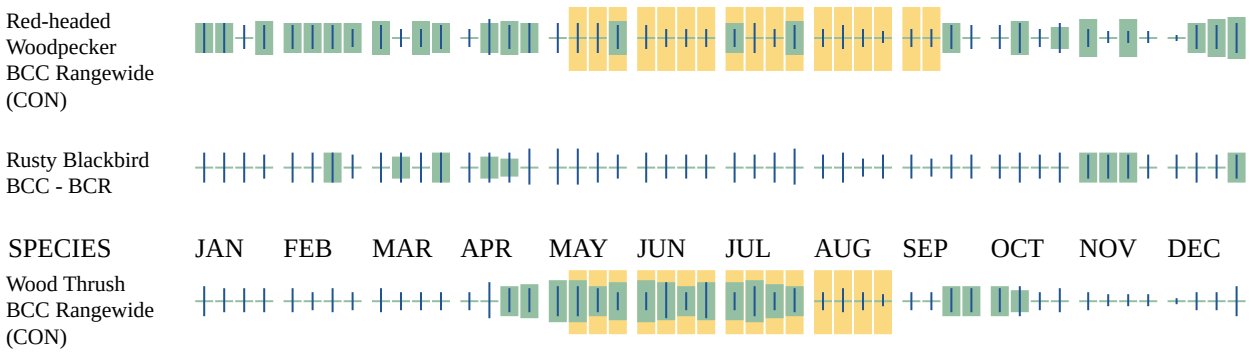
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

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- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Briana Cooney
Address:	222 South 9th Street
Address Line 2:	Suite 2900
City:	Minneapolis
State:	MN
Zip:	55402
Email	briana.cooney@erm.com
Phone:	6123477114

VAFWIS - Department of Wildlife Resources

37.48640 -79.20879
is the Search Point
Submit Cancel

Search Point
- **Change** to "clicked" map point
- **Fixed** at 37.48640 -79.20879

Show Position Rings
Yes No
1 mile and 1/4 mile at the **Search Point**

Show Search Area
Yes No
2 Search distance miles buffer

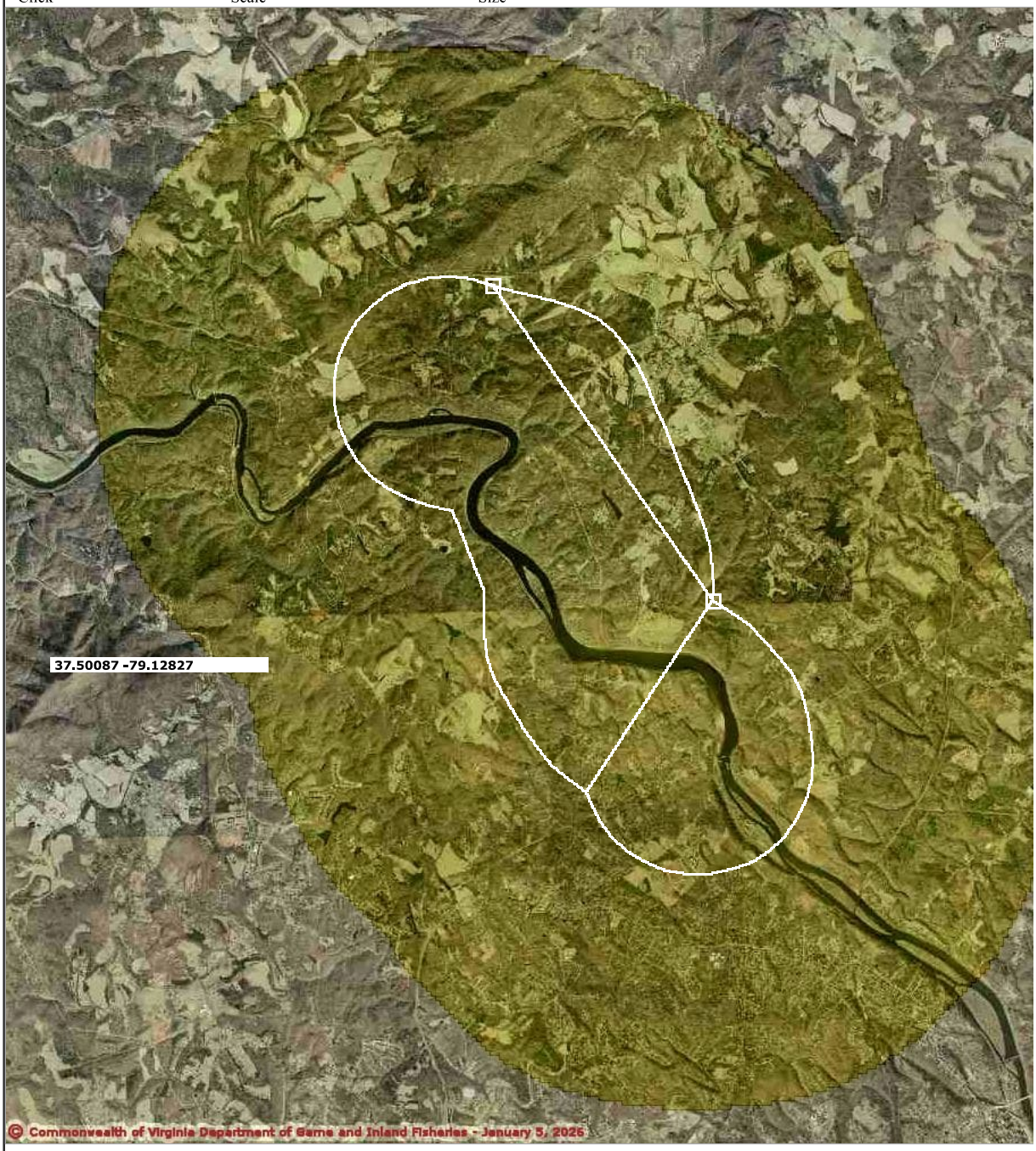
Search Point is at map center

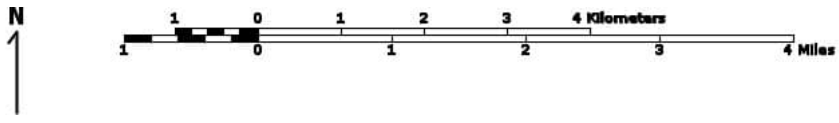
Base Map Choices
Color Aerial Photography

Map Overlay Choices
Current List: Search

Map Overlay Legend
2 mile radius Search Area

back
Map Click Pan Id M
Map Scale In Zoom Out
Refresh Browser Page
Screen Size Small Size Big
Help





Point of Search 37.48640 -79.20879
Map Location 37.48640 -79.20879

Select **Coordinate System:**
- Degrees,Minutes,Seconds Latitude - Longitude
- Decimal Degrees Latitude - Longitude
- Meters UTM NAD83 East North Zone
- Meters UTM NAD27 East North Zone

Base Map source: Color Aerial Photography 2002 - Virginia Base Mapping Program, Virginia Geographic Information Network

Map projection is UTM Zone 17 NAD 1983 with left 650360 and top 4158340. Pixel size is 16 meters . Coordinates displayed are decimal Degrees North and West. Map is currently displayed as 1000 columns by 1000 rows for a total of 1000000 pixles. The map display represents 16000 meters east to west by 16000 meters north to south for a total of 256.0 square kilometers. The map display represents 52502 feet east to west by 52502 feet north to south for a total of 98.8 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.

map assembled 2026-01-05 13:14:10 (qa/qc March 21, 2016 12:20 - tn=4454005 dist=3218 I)
$poi=37.5233400 -79.2207200

Options
Species Information
By Name
By Land Management
References
Geographic Search
By Map
By Coordinates
By Place Name
Database Search
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VaFWIS Search Report Compiled on 1/5/2026, 1:15:48 PM

Help

Known or likely to occur within a **2 mile buffer around line beginning 37.5233400 -79.2207199** in **009 Amherst County, 019 Bedford County, 680 Lynchburg City, VA**

View Map of Site Location

642 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 36) (36 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FESE	Ia	Bat, Northern Long-eared	Myotis septentrionalis		BOVA
060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes	BOVA,TEWaters,Habitat,SppObs,HU6
060173	FTST	Ia	Pigtoe, Atlantic	Fusconaia masoni		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes	BOVA,SppObs,HU6
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, Tricolored	Perimyotis subflavus	Yes	BOVA,SppObs
010214	SE	IIa	Roanoke Logperch	Percina rex		BOVA
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA,HU6
040379	ST	Ia	Sparrow, Henslow's	Centronyx henslowii		BOVA
060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes	BOVA,TEWaters,Habitat,SppObs,HU6
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100248	FP	Ia	Fritillary, Regal	Speyeria idalia idalia		BOVA,HU6
100079	FP	IIIa	Butterfly, Monarch	Danaus plexippus		BOVA
030031	CC	IIIc	Kingsnake, scarlet	Lampropeltis elapsoides		BOVA
030012	CC	IVa	Rattlesnake, timber	Crotalus horridus		BOVA,HU6
010174		Ia	Bass, Roanoke	Ambloplites cavifrons		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA
040092		Ia	Eagle, golden	Aquila chrysaetos		BOVA
040040		Ia	Ibis, glossy	Plegadis falcinellus		BOVA,HU6
040306		Ia	Warbler, golden-winged	Vermivora chrysoptera		BOVA,HU6
080214		Ia	Stonefly, Beartown perlodid	Isoperla major		BOVA
080216		Ib	Willowfly, cryptic	Taeniopteryx nelsoni		BOVA
020039		Ic	Salamander, Peaks of Otter	Plethodon hubrichti		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		HU6
020023		IIa	Salamander, mole	Ambystoma talpoideum		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA

040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor	Potential	BOVA,BBA,HU6
040203		IIb	Cuckoo, black-billed	Coccyzus erythropthalmus		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA
070138		IIc	Amphipod, Bland County	Crangonyx fontinalis		BOVA
080336		IIc	Beetle, Gammon's stenelmis riffle	Stenelmis gammoni		BOVA
100154		IIc	Butterfly, Persius duskywing	Erynnis persius persius		BOVA,HU6
100256		IIc	Crescent, tawny	Phyciodes batesii batesii		BOVA,HU6

To view **All 642 species** View 642

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.; b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

View Map of All Query Results from All Observation Tables

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams (1 records) View Map of All Anadromous Fish Use Streams

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE*	Highest Tier**	
P23	Blackwater creek	Potential	0			Yes

Impediments to Fish Passage (11 records) View Map of All Fish Impediments

ID	Name	River	View Map
334	ABERT WATER PLANT - SLUDGE LAGOON	TRIB - JAMES RIVER	Yes
325	EVERGREEN LAKE DAM	TR-JUDITH CREEK	Yes
972	GENERAL ALBERT%27S DAM	TR-GRAHAM CREEK	Yes
976	GENERAL ALBERT%27S OTHER DAM	TR-GRAHAM CREEK	Yes
965	GRAHAM CREEK RES. DAM #1	GRAHAM CREEK	Yes
329	HARRINGTON DAM	WIDE MOUTH CREEK	Yes
981	HOLCOMB ROCK DAM	JAMES RIVER	Yes
983	HOMEWOOD LAKE DAM	JOHNS CREEK	Yes
326	HORNER%27S DAM	TR-JUDITH CREEK	Yes
961	REUSENS	JAMES R	Yes
332	WOODS LANDING DAM	TRIB - JAMES RIVER	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters (50 Reaches - displaying first 20) View Map of All Threatened and Endangered Waters

Stream Name	T&E Waters Species					View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name				
James River (0111462)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0101501)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0103367)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0106499)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes

		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0108531)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0143024)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0148160)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (0158100)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (089164)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (096683)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (097294)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (098172)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
(0105538)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
(085978)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
(095927)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
(096260)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0101605)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0101624)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0104188)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0105748)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0142805)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0145151)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (0145361)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes

To view **All 50 Threatened and Endangered Waters records** View 50

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests (1 records)

View Map of All Query Results
Bald Eagle Nests

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
BE0301	7	Apr 2 2008	UNKNOWN	Yes

Displayed 1 Bald Eagle Nests

Species Observations (167 records - displaying first 20 , 16 Observations with Threatened or Endangered species)

View Map of All Query Results
Species Observations

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	

634478	SppObs	Apr 4 2020	John Alderman; Brian Watson; Kim Morgan; John Fridell	4	FESE	I	Yes
630881	SppObs	Aug 26 2017	Susan Alexander; Mark Hartman; John Chiles; Kirsten M	3	FESE	I	Yes
630643	SppObs	Apr 21 2016	Susan Alexander; Mark Hartman	3	FESE	I	Yes
630642	SppObs	Apr 15 2016	Susan Alexander; Mark Hartman; David Bova	3	FESE	I	Yes
627506	SppObs	Oct 20 2011	B. J. K. ; Ostby| R. J. ; Neves| M. D. ; Bierlein| J. ; Pr	6	FESE	I	Yes
59798	SppObs	Aug 7 2000	Bill Henley & Jess Jones, VA Cooperative Fish and Wildlife Research Unit, Dept. of Fisheries and Wildlife Sciences, VA Tech	3	FESE	I	Yes
58714	SppObs	Apr 15 2000	Jess Jones, Jeff Allen, and Clare Mangum, Virginia Cooperative Fish and Wildlife Research Unit, VA Tech	3	FESE	I	Yes
375763	Aquatics	Jul 15 1999	M. McGregor, R. Steinberg, J. Baisden	22	FESE	I	Yes
1456	SppObs	Jan 1 1900		1	FESE	I	Yes
1648	SppObs	Jan 1 1900		1	FESE	I	Yes
3104	SppObs	Jan 1 1900	Div. of Natural Heritage	1	FESE	I	Yes
1455	SppObs	Jan 1 1900		1	FESE	I	Yes
55155	SppObs	Sep 22 1997	Wendell Pennington	1	FTST	II	Yes
55154	SppObs	Sep 22 1997	Wendell Pennington	1	FTST	II	Yes
635903	SppObs	May 24 2022	Ethan Okon	3	FPSE	I	Yes
642467	SppObs	May 24 2022	Ethan Okon	3	FPSE	I	Yes
648046	SppObs	Oct 20 2022	Cory Goff	29		III	Yes
630876	SppObs	Aug 2 2017	Susan Alexander; John Chiles	2		III	Yes
644290	SppObs	Oct 3 2016	Paul Sattler	29		III	Yes
627220	SppObs	Nov 4 2015	Jason; Hill| Drew; Miller	22		III	Yes

Displayed 20 Species Observations

Selected 167 Observations View all 167 Species Observations

Habitat Predicted for Aquatic WAP Tier I & II Species (12 Reaches) View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

Stream Name	Tier Species					View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name				
Blackwater Creek (20802031)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
Harris Creek (20802031)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
Harris Creek (20802032)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
Ivy Creek (20802031)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
Ivy Creek (20802032)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (20802031)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
James River (20802032)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
Pedlar River (20802031)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
Pedlar River (20802032)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
		060081	FPST	IIa	Green Floater	Platynaias subviridis	
tributary (20802031)	FESE	060017	FESE	Ia	Spinymussel, James	Parvaspina collina	Yes
tributary (20802031)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes
tributary (20802032)	FPST	060081	FPST	IIa	Green Floater	Platynaias subviridis	Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (7 records) View Map of All Query Results Virginia Breeding Bird Atlas Blocks

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
36096	Big Island, SE	55		III	Yes
36082	Boonsboro, NE	3		III	Yes
37084	Lynchburg, CE	57		III	Yes

37083	Lynchburg, CW	2		III	Yes
37082	Lynchburg, NE	74		II	Yes
37081	Lynchburg, NW	1			Yes
37096	Tobacco Row Mtn., SE	65		III	Yes

Public Holdings:

N/A

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
009	Amherst	394	FESE	I
019	Bedford	466	FESE	I
680	Lynchburg City	347	FESE	I

USGS 7.5' Quadrangles:
Boonsboro
Big Island
Lynchburg
Tobacco Row Mtn.

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
JM03	James River-Thomas Mill Creek	65	FESE	I
JM06	Pedlar River-Horsley Creek	55	FESE	I
JM07	James River-Judith Creek	65	FESE	I
JM08	Harris Creek	51	FPST	I
JM09	Ivy Creek-Cheese Creek	57	FPST	I
JM10	Blackwater Creek	58	FTST	I
JM11	James River-Opossum Creek	55	FTST	I

Compiled on 1/5/2026, 1:15:49 PM I4454005.0 report=all searchType= L dist= 3218 poi= 37.5233400 -79.2207199 siteDD= 37.5233430 -79.2207278;37.5226620 -79.2173878;37.5219810 -79.2140468;37.5212010 -79.2107418;37.5203230 -79.2074768;37.5190160 -79.2044498;37.5172780 -79.2017868;37.5151710 -79.1995838;37.5127730 -79.1979138;37.5102640 -79.1965118;37.5077330 -79.1951748;37.5051630 -79.1939588;37.5026000 -79.1927218;37.5000370 -79.1914838;37.4974630 -79.1902808;37.4949180 -79.1889848;37.4923370 -79.1878088;37.4896870 -79.1869238;37.4869520 -79.1866728;37.4842050 -79.1866878;37.4828700 -79.1867388;37.4586010 -79.2073918;37.4604640 -79.2102248;37.4622450 -79.2128408;37.4643870 -79.2149898;37.4668470 -79.2189468;37.4690050 -79.2187088;37.4713930 -79.2204108;37.4738430 -79.2219818;37.4764740 -79.2229308;37.4792030 -79.2232628;37.4819490 -79.2232178;37.4846910 -79.2230798;37.4872450 -79.2243458;37.4898190 -79.2255488;37.4923810 -79.2267908;37.4948890 -79.2279998;37.4948890 -79.2279998;37.4955610 -79.2313358;37.4965040 -79.2345818;37.4976820 -79.2376898;37.4993030 -79.2404658;37.5013120 -79.2428088;37.5036380 -79.2446328;37.5061950 -79.2458758;37.5088920 -79.2464938;37.5116340 -79.2464628;37.5143220 -79.2457848;37.5168610 -79.2444848;37.5191590 -79.2426058;37.5211340 -79.2402158;37.5227140 -79.2374028;37.5238450 -79.2342668;37.5244860 -79.2309198;37.5246140 -79.2274808;37.5242240 -79.2240718;37.5233640 -79.2207998;37.5233430 -79.2207278;37.4827210 -79.1866328;37.4812450 -79.1837268;37.4795760 -79.1809968;37.4776160 -79.1785828;37.4755590 -79.1762998;37.4733510 -79.1742588;37.4708780 -79.1727728;37.4682260 -79.1718968;37.4655070 -79.1714718;37.4627790 -79.1711218;37.4600470 -79.1714268;37.4574100 -79.1723698;37.4549620 -79.1739188;37.4527900 -79.1760178;37.4509710 -79.1785918;37.4495700 -79.1815488;37.4486380 -79.1847838;37.4482030 -79.1881808;37.4482140 -79.1916208;37.4487440 -79.1949948;37.4497710 -79.1981848;37.4512570 -79.2010748;37.4531500 -79.2035628;37.4553820 -79.2055608;37.4578750 -79.2069948;37.4589010 -79.2073918;37.4828700 -79.1867388;37.4827210 -79.1866328;

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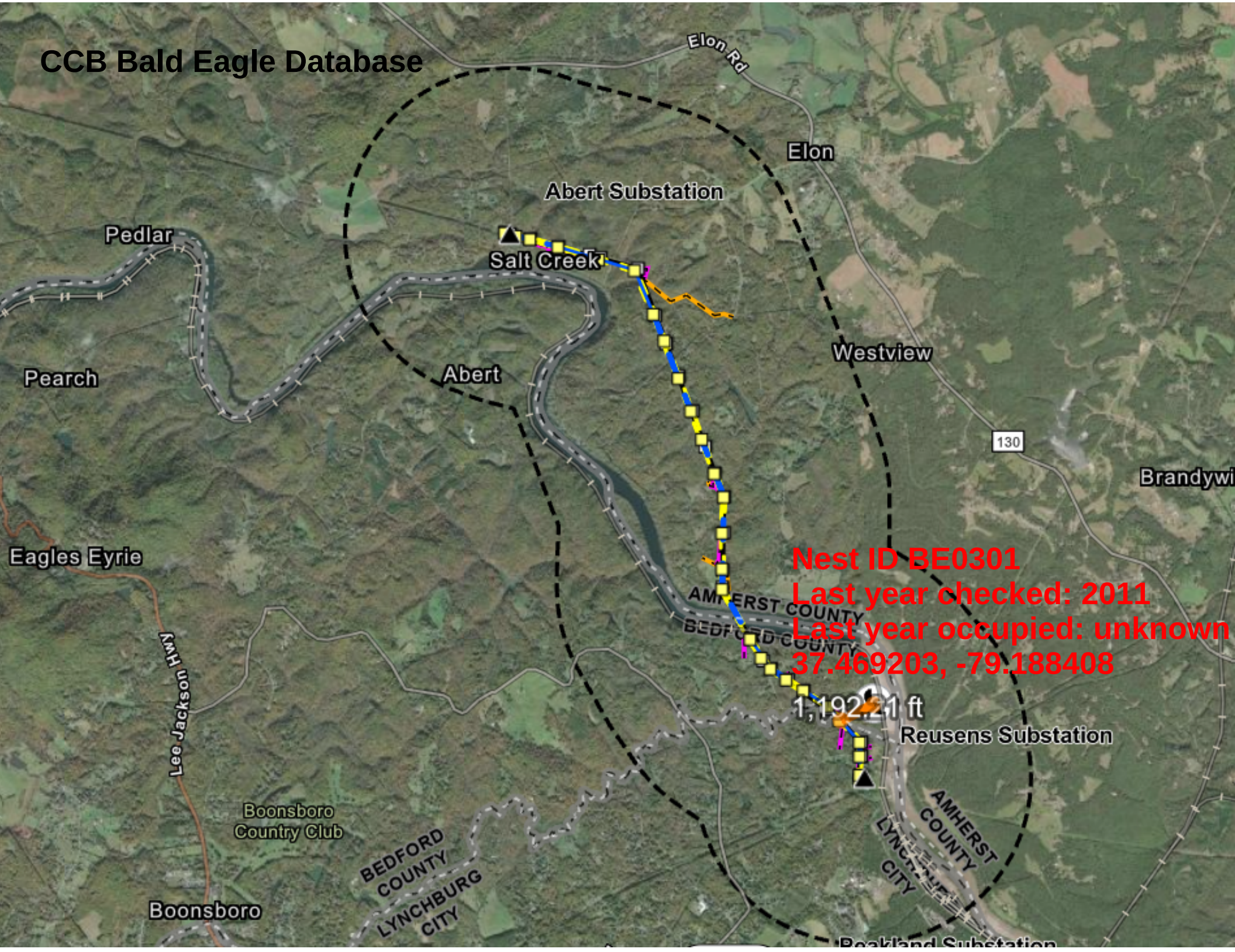
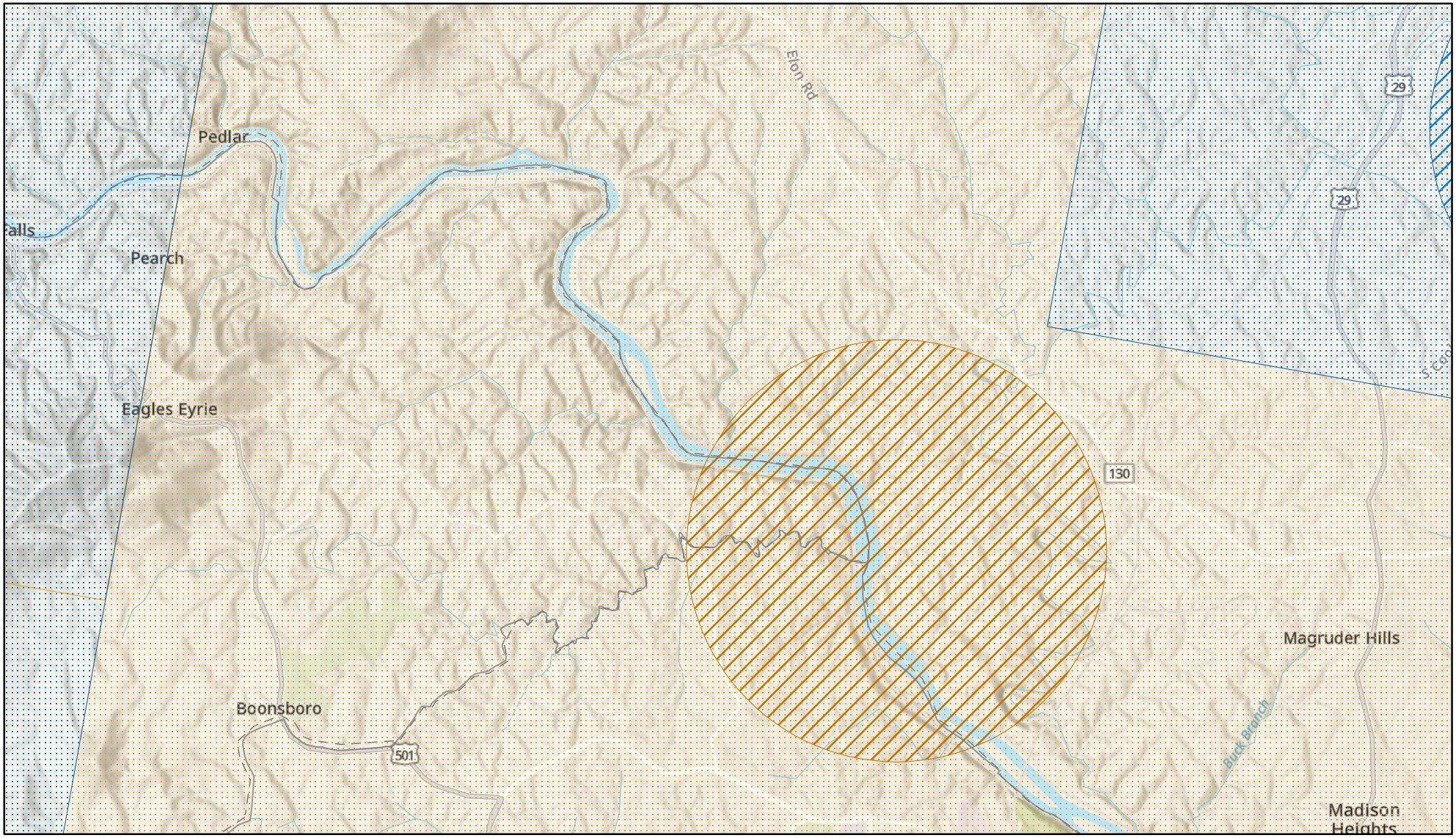

CCB Bald Eagle Database
Elon Rd
Elon
Abert Substation
Pedlar
Salt Creek
Pearch
Abert
Westview
130
Brandywi
Eagles Eyrie
Nest ID BE0301
Last year checked: 2011
Last year occupied: unknown
37.469203, -79.188408
AMHERST COUNTY
BEDFORD COUNTY
1,192.21 ft
Reusens Substation
Lee Jackson Hwy
Boonsboro
Country Club
BEDFORD
COUNTY
LYNCHBURG
CITY
Boonsboro
AMHERST
COUNTY
LYNCHBURG
CITY

Threatened and Endangered Bats - DWR



1/5/2026, 1:55:26 PM

NLEB Capture

NLEB Consultation Range

TCB Capture

TCB Consultation Range

1:75,424

0 0.5 1 2 mi

0 0.75 1.5 3 km

VA DWR