

Application, Appendix, DEQ Supplement, Direct Testimony and Exhibits of Virginia Electric and Power Company

Before the State Corporation Commission of Virginia

Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines

Application No. 352

Case No. PUR-2025-00077

Filed: May 9, 2025

Volume 2 of 2

BEFORE THE STATE CORPORATION COMMISSION OF VIRGINIA

APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY FOR APPROVAL OF ELECTRIC FACILITIES

Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines

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Based upon consultations with the Virginia Department of Environmental Quality ("DEQ"), Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") has developed this DEQ Supplement to facilitate review and analysis of the proposed Chickahominy-Elmont Line #557 Rebuild and New Future 230 kV Lines ("Rebuild Project") by DEQ and other relevant agencies.

1. Project Description

In order to maintain the structural integrity and reliability of the networked transmission system in compliance with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, and provide for future load growth in the Richmond Load Area, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes, in Charles City, Henrico, and Hanover Counties, ¹ to:

- (i) Rebuild, within existing right-of-way, approximately 27.6 miles of the existing 500 kilovolt ("kV") Chickahominy-Elmont Line #557 by removing the existing 500 kV single circuit COR-TEN® structures and replacing them with new 500/230 kV double circuit weathering steel H-frame structures.²
- (ii) Install approximately 8.1 miles of idle 230 kV conductors on the vacant arms of the structures of the Company's existing 230 kV Chickahominy-Elmont Line #2075, between Chickahominy Substation and Structure #2075/148.^{3,4}

(collectively, the "Rebuild Project").5

¹ A short, less than 0.02-mile segment of the Rebuild Project right-of-way traverses a small area of land whose ownership between the surrounding localities cannot be determined. In this less than 0.02-mile segment of the Rebuild Project, the Rebuild Project's conductor may traverse a small area of New Kent County. Despite this crossing, no structures currently exist or will be constructed in New Kent County. Because the Rebuild Project does not meaningfully—if at all—traverse New Kent County, the Company does not consider the Rebuild Project to cross New Kent County. The Company has nonetheless provided New Kent County officials and residents with notice of the Rebuild Project, but has not otherwise included New Kent County in this Appendix.

² As part of the Rebuild Project, the Company proposes to install 27.6 miles of idle 230 kV conductors on the lower level of the Company's proposed 500/230 kV double circuit structures between Chickahominy Substation and Elmont Substation. As explained in this Executive Summary and Section I.A, this work is needed so that the Company can continue to provide reliable service for the significant load growth anticipated in the Rebuild Project area. The Company will not energize the new conductors until the anticipated load materializes and the substation terminations are available.

³ Heading north after exiting Chickahominy Substation, 500 kV Line #557 and 230 kV Line #2075 parallel each other for approximately 8.1 miles within the same corridor, until diverging at Structure #2075/148 (Structure #557/264). In addition to installing idle conductors on the vacant arms of Line #2075, the Company intends to opportunistically reconductor Line #2075 between Chickahominy Substation and Structure #2075/150. The Company considers this reconductoring to qualify as an "ordinary extension[] or improvement[] in the usual course of business" (*i.e.*, "ordinary course") pursuant to Va. Code § 56-265.2 A 1 and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a certificate of public convenience and necessity ("CPCN") from the Commission. This is consistent with the Staff's July 6, 2017 guidance (available at https://www.scc.virginia.gov/media/sccvirginiagov-home/regulated-industries/utility-regulation/responsibilities/guidance-documents/staffguidanceordvsnonord.pdf), which provides that any transmission project that only requires reconductoring, maintenance or station work does not require a CPCN.

⁴ The Company intends to install conductors between Structure #2075/149 and Elmont Substation on the existing vacant arms as part of a future project.

⁵ The Company will also perform work associated with the Rebuild Project at the Elmont Substation. This work, while not included as part of the Rebuild Project, is discussed in Section II.C. In addition, Line #2075 currently

The proposed Rebuild Project is necessary for two primary reasons. The Rebuild Project is necessary to comply with mandatory NERC Reliability Standards, and so that the Company can continue to provide reliable service for the significant load growth anticipated in the area. The entire Rebuild Project will be located on Company-owned property or right-of-way and no new property or right-of-way will be required.

2. Environmental Analysis

As part of Dominion Energy Virginia's environmental compliance, the Company has a comprehensive Environmental Management System Manual in place that ensures it is committed to complying with environmental laws and regulations, reducing risk, minimizing adverse environmental impacts, setting environmental goals, and achieving improvements in its environmental performance, consistent with the Company's core values. The Company has conducted an environmental analysis on the proposed Rebuild Project. Please see the following subsections of this DEQ Supplement for pertinent details about the proposed Rebuild Project.

A. Air Quality

For the Rebuild Project, the Company will control fugitive dust during construction in accordance with DEQ regulations. During construction, if the weather is dry for an extended period of time, there will be airborne particles from the use of vehicles and equipment within the right-of-way. However, minimal earth disturbance will take place and vehicle speed, which is often a factor in airborne particulate, will be kept to a minimum. Erosion and sediment control is addressed in Section 2.H of this Supplement. Equipment and vehicles that are powered by gasoline or diesel motors will also be used during the construction of the line so there will be exhaust from those motors. Exhaust from these motors will result in minimal air pollution.

The existing transmission right-of-way corridor currently is maintained for transmission facility operations. The Rebuild Project may require some trimming of tree limbs along the right-of-way edges to support construction activities or danger tree removal. The Company does not expect to burn cleared material, but if necessary, the Company will coordinate with the responsible locality to obtain these permits and will comply with any conditions set forth by the locality, or take actions as otherwise in accordance with the Company's right-of-way easements. The Company's tree clearing methods are described in Section 2.L.

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terminates at Elmont Substation. Upon completion of the Rebuild Project, Line #2075 will double dead-end at or near Elmont Substation to capture significant cost savings and minimize environmental impacts, as compared to leaving Line #2075 unaddressed until a later date when the station can be arranged to accept the termination. While the work is required by the proposed Rebuild Project, the Company considers the work at Elmont Substation and the work related to Line #2075's termination to qualify as an "ordinary extension[] or improvement[] in the usual course of business (*i.e.*, "ordinary course") pursuant to § 56-265.2 A 1 of the Code of Virginia ("Va. Code") and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a CPCN from the Commission. Because this work is not a component of the proposed Rebuild Project, the costs associated with this work are not included in the total Rebuild Project costs.

B. Water Source

No water source is required for transmission lines. This discussion will focus on water bodies that will be crossed by the proposed transmission lines.

The proposed Rebuild Project is located within the Lower James watershed, 02080206. According to the U.S. Geological Survey ("USGS") topographic quadrangles (Roxbury [2019], Quinton [2019], Seven Pines [2019], Richmond [2019], and Yellow Tavern [2019] Virginia) and the Virginia Department of Conservation and Recreation's ("DCR") National Hydrography Dataset found on the Natural Heritage Data Explorer, the existing transmission line corridor crosses Chickahominy River (multiple crossings), Turner Run, Upham Brook, Horse Creek, Beaverdam Creek, Boatswain Creek, Elder Swamp, Boar Swamp, White Oak Swamp, Possum Run as well as unnamed tributaries to these waterbodies.

During detailed engineering, the Company will aim to span these waterbodies with no foundations being located below ordinary high water or mean high water marks, if possible. Any clearing, if required, in the vicinity of streams will be performed by hand within 100 feet of both sides, and vegetation less than three inches in diameter will be left undisturbed.

A subaqueous encroachment permit is expected to be required as there are multiple crossings (Chickahominy River, Beaver Dam Creek, White Oak Swamp) that either are tidal waters, or have a drainage area of five square miles or greater at the crossing location. A Joint Permit Application ("JPA") will be submitted for review by the VMRC, DEQ and the U.S. Army Corps of Engineers (the "Corps") to authorize jurisdictional crossings and for any impacts to jurisdictional features. See Section 2.D below.

C. Discharge of Cooling Waters

No discharge of cooling waters is associated with the Rebuild Project.

D. Tidal and Non-tidal Wetlands

On behalf of the Company, C2 Environmental, Inc. ("C2 Environmental") conducted a desktop wetland review to identify potential wetlands, streams and other water of the United States ("WOTUS") crossed by the Rebuild Project. Sources for this desktop review include the United States Fish and Wildlife Service ("USFWS") National Wetland Inventory ("NWI"), the U.S. Department of Agriculture-Natural Resources Conservation Service Soil Survey data, USGS topographic maps and digital elevation model data, Federal Emergency Management Agency ("FEMA") 100-year floodplain maps, and historic aerial imagery (Google Earth). A copy of the Desktop Wetland Review is included in Attachment 2.D.1.

Total jurisdictional resources crossed by the Rebuild Project, as estimated using desktop resources, are summarized in the table below and depicted in Attachment 2.D.1.

Table D-1. Results of Desktop Wetland Review Rebuild Project Summary								
	Low	Medium	High	Total				
PEM/PSS Wetlands	4.2 AC	11.9 AC	482.6 AC	498.7 AC				
PFO Wetlands				0.5 AC				
Open Water				16.5 AC				
Stream Channel	-	-	-	23.9 AC (56,674 LF)				
Jurisdictional Ditch	-	-	-	0.6 AC (3,978 LF)				

Prior to construction, the Company will delineate wetlands and other waters of the United States 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). The Company will obtain any necessary permits to impact jurisdictional resources.

E. Floodplains

As depicted on the Federal Emergency Management Agency's ("FEMA") online Flood Insurance Rate Maps (see Table E-1) the Rebuild Project lies within Zone X, areas of minimal flood hazard, Cone A, base flood elevation and 100-year floodplain, and Zone AE, areas with a 1% annual chance of flooding. The Company will coordinate with the local floodplain coordinators as required.

Table E-1. FEMA Flood Insurance Rate Maps within the Proposed Rebuild Project Area					
FEMA Flood Insurance Rate Map(s)	Effective Date	Zone(s) that Cross the Rebuild Project Area			
51036C0050D	04/20/2022	-			
51085C0303C	06/20/2024	-			
51085C0311C	06/20/2024	AE, X			
51085C0312C	06/20/2024	AE, X			
51085C0320C	06/20/2024	AE, X			
51085C0430C	06/20/2024	AE, X			
51085C0435C	06/20/2024	A			
51085C0445C	06/20/2024	A			
51085C0465C	06/20/2024	A			
51087C0061D	04/25/2024	AE			
51087C0062D	04/25/2024	AE, X			
51087C0066D	04/25/2024	AE, X			
51087C0068D	04/25/2024	AE			
51087C0131D	04/25/2024	AE, X, A			
51087C0132D	04/25/2024	AE, X			
51087C0134D	04/25/2024	AE, X			
51087C0153D	04/25/2024	AE, X			
51087C0190D	04/25/2024	A			
51087C0255D	04/25/2024	A			

51087C0260D	04/25/2024	A
31007C0200B	0 1/23/2021	1 1

F. Solid and Hazardous Waste

Environmentally regulated sites that use and/or store hazardous materials or waste-producing facilities operating under regulatory permits in the vicinity of the Rebuild Project have been identified using publicly available GIS databases obtained from the United States Environmental Protection Agency ("EPA") and the DEQ. These databases provide information about a variety of facilities, sites, or places subject to environmental regulation or of environmental interest, including Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA" or "Superfund") sites; Resource Conservation and Recovery Act ("RCRA") sites; Brownfield sites; petroleum storage and petroleum release sites; Pollution Response Programs (PREP sites), and solid waste sites. The identification of a site in the databases does not mean that the site necessarily has contaminated soil or groundwater.

Sites regulated by the EPA under the Clean Air Act ("CAA") Compliance Monitoring Program, Toxic Release Inventory ("TRI"), National Pollutant Discharge Elimination System ("NPDES") and RCRA, and sites regulated by the DEQ under the Air, Solid Waste, Virginia Pollutant Discharge Elimination System ("VPDES"), Voluntary Response Program ("VRP"), and Registered Petroleum Tank Facilities programs not associated with a petroleum leak, site assessment, remediation, corrective action or emergency response case are anticipated to have no effect on, and will not be affected by, the Rebuild Project. These sites are not discussed further.

Sites within 0.5 miles of the Rebuild Project regulated by the EPA as Superfund, Brownfield, and RCRA, and regulated by the DEQ, including Petroleum Release, VRP, and PREP sites, were evaluated for potential impacts and are discussed in the sections below.

EPA Regulated Sites

No CERCLA/Superfund or Brownfield sites or RCRA sites were identified within the 0.5-mile search radius for the Rebuild Project, as such are not anticipated to impact nor be impacted by the Rebuild Project.

DEQ Regulated Sites

One active solid waste permit was identified within the 0.5-mile search radius for the Rebuild Project. The facility site name is the County Waste Hanover Transfer Station and has been active since 2019. The facility is located approximately 0.5 mile east of the Rebuild Project, and as such no impacts are anticipated.

Eighty-nine petroleum release sites were identified as present within a 0.5-mile radius of the Rebuild Project. All but one petroleum release site has been closed. The open petroleum release site is PC number 20164057 (Chickahominy Market Incorporated – Cold Harbor) and the release date was August 11, 2015. The Chickahominy Market

Incorporated release site is located approximately 0.3 mile north of the Rebuild Project, and as such no impacts are anticipated.

Twenty-three registered tank facilities were identified as present within a 0.5-mile radius of the Rebuild Project. Thirteen of the twenty-three registered tank facilities are active, twenty-two are federally registered, and six contain active above ground storage tanks. There are nineteen active underground storage tanks at six registered tank facilities. The Company has a procedure in place to handle petroleum contaminated soil, if encountered.

EPA and DEQ Regulated Sites Within 200 Feet

No EPA or DEQ regulated sites are within 200 feet of the Rebuild Project.

Summary

In summary, no EPA or DEQ regulated sites were identified within 200 feet of the Rebuild Project. One active solid waste permit was identified approximately 0.5-mile east of the Rebuild Project. Twenty-tree registered tank facilities were identified as active and six contain active underground storage tanks and another six contain above ground storage tanks. None were identified within the transmission line right-of-way or within 200 feet of the Rebuild Project. All but one petroleum release cases within 0.5-mile of the Rebuild Project have been closed by the DEQ. The one open petroleum release site is located approximately 0.3 mile from the Rebuild Project and as such no impacts are anticipated. The DEQ deems a petroleum release case closed once there is no further risk to the general public, although petroleum residue might remain.

The DEQ's risk assessments do not always consider the risk associated with temporary excavations and construction. Although the proposed Rebuild Project involves construction of overhead lines, some subsurface work is required during installation of the proposed structures. This disturbance occurs at discrete locations along the route, with temporary spoils contained as they are generated. The Company has a procedure in place to safely identify, manage, and dispose of any suspected hazardous or contaminated media encountered during construction. If contaminated soil or groundwater are identified, the Company will coordinate with the associated regulatory agency and dispose of the soils in accordance with applicable regulations. Therefore, the Company believes that no further evaluation of petroleum release sites is warranted.

Care will be taken to operate and maintain construction equipment to prevent any fuel or oil spills. Any waste created by the 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 DEQ.

G. Natural Heritage, Threatened and Endangered Species

On behalf of the Company, C2 Environmental conducted online database searches to identify federal- and state-listed threatened and endangered species that may occur in the vicinity of the Rebuild Project, including the DCR Natural Heritage Data Explorer

("NHDE"). The NHDE includes Conservation Sites, Stream Conservation Units ("SCUs"), General Location Areas for Natural Heritage Resources, and Ecological Cores. The Virginia Department of Wildlife Resources ("DWR") Fish and Wildlife Information Service ("VaFWIS") and the USFWS Information for Planning and Consultation ("IPaC") System were also searched to identify federally and state-listed species that may occur within the vicinity. The identified federal- and state-listed threatened and endangered species within the vicinity are presented in Table G-1 below, and the individual search results are included as Attachment 2.G.1.

The review accounted for regulatory changes and requirements associated with the USFWS uplisting of the Northern long-eared bat ("NLEB," *Myotis septentrionalis*) from federally threatened to federally endangered. On October 15, 2024, USFWS issued the NLEB Final Guidance for development projects. The USFWS Interim Guidance for the NLEB expired on November 30, 2024, and the Final Guidance for NLEB took effect.

The review also 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. The Company is anticipating the TCB and Monarch butterfly will be listed; therefore, it assumes any regulatory changes associated with the potential listing of the TCB and Monarch butterfly will affect this Rebuild Project. On September 14, 2022, the TCB was proposed to be listed as Endangered by the USFWS. USFWS extended its Final Rule issuance target from September 2023 to the end of 2024. At this time, the TCB Final Rule 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 will close on May 19, 2025. The Company is actively tracking these rulings and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

In October 2024 USFWS issued a final NLEB and TCB Range-wide Determination Key ("DKey") to allow project proponents to assess project 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 Rebuild Project enters permitting.

Searches of the above referenced databases identified multiple federal- and state-listed threatened and endangered species potentially occurring in the vicinity of the Rebuild Project (Table G-1). The federally listed species include the NLEB and Swamp pink (*Helonias bullata*) both of which are also listed at the state level. These searches also identified the TCB and the Monarch butterfly, which are both currently proposed for federal listing, neither species was listed at the time of this filing.

The DWR operates a Northern Long-eared Bat Winter Habitat and Roost Tree and a Little Brown Bat and Tri-colored Bat Winter Habitat & Roosts online mapping systems, which show general locations of known hibernacula and roost trees. A review of these systems

did not identify any known hibernacula or roost trees in Charles City, Henrico, and Hanover Counties; however, the Rebuild Project does overlap with known NLEB capture 3-mile buffers. The Company will coordinate with the appropriate agencies, as necessary, should tree clearing be required.

Based on the DWR VaFWIS query, state endangered Rafinesque's eastern big-eared bat (Corynorhinus rafinesquii macrotis) has known occurrences within 2 miles of the Rebuild Project. This species was also identified in the DCR query as having the potential to occur in the same watershed as the Rebuild Project. The DCR also identified state threatened New Jersey Rush (Juncus Caesariensis) as having the potential to occur in the same watershed as the Rebuild Project.

The DWR query also identified Anadromous Fish Use Areas near the Rebuild Project. A portion of the Chickahominy River, which meanders through the project area, is a confirmed Anadromous Fish Use Area. The portion of the river that is a confirmed Anadromous Fish Use Area is not crossed by the Rebuild Project.

To obtain the most current eagle nest data, C2 Environmental 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. The CCB mapping portal identified one bald eagle nest within 660 feet of the Rebuild Project. The nest was last checked and occupied in 2021. The CCB portal did not identify any osprey nests within 660 feet of the Rebuild Project. Further, according to the USFWS Bald Eagle Concentration Area Map, the Rebuild Project is not located within a designated Eagle Concentration Area.

Based on the queries of the above referenced sources, the following federal- and/or state-listed threatened and endangered species have the potential to occur within the vicinity of the Rebuild Project (Table G-1). A copy of the database search results can be found in Attachment 2.G.1.

	Table G-1. Potential Federal- and State-Listed Species in the vicinity of the Rebuild Project Potential Federal- and State-Listed Species in the Rebuild Project Area								
Species (Scientific Name) Status Database Habitat Results									
Northern long- eared bat (Myotis septentrionalis)	FE, ST	USFWS IPaC	Generally associated with old-growth or late successional interior forests. Partially dead or decaying trees are used for breeding, summer day roosting, and foraging. Hibernation occurs primarily in caves, mines, and tunnels.	Species potentially occur within the vicinity of the Rebuild Project. No known hibernacula or maternity roosts are identified within 0.5 mile. Rebuild Project to be constructed within existing cleared ROW, no impacts are anticipated.					

Table G-1.									
	Potential Federal- and State-Listed Species in the vicinity of the Rebuild Project Potential Federal- and State-Listed Species in the Rebuild Project Area								
Species (Scientific Name)	Status	Database	Habitat	Results					
Tricolored bat	FPE,	USFWS	Typically roost in trees near	Species potentially occurs					
(Perimyotis subflavus)	SE	IPaC	forest edges during summer. Hibernate deep in caves or mines in areas with warm, stable temperatures during winter.	within the vicinity of the Rebuild Project. No hibernacula or roost trees identified within 0.5 mile. Rebuild Project to be constructed within existing cleared ROW, no impacts are anticipated.					
Monarch Butterfly (Danaus plexippus)	FPT	USFWS IPaC	Typically found in herbaceous and scrub-shrub areas particularly with the presence of milkweed.	Suitable habitat may be present in the right-of-way. Vegetation may be temporarily disturbed due to construction access; however, no long term or adverse effects are expected.					
Swamp Pink (Helonias bullata)	FT, SE	DCR	Acidic, sandy seeps and seepage swamps, palustrine forested and scrub/shrub wetlands, often rooted in sphagnum hummocks.	Existing right-of-way is already cleared; however, suitable habitat may be present in or adjacent to the right-of-way depending on field conditions at the time of construction.					
New Jersey Rush (Juncus Caesariensis)	ST	DCR	Shady stream banks, pond margins, swales, and swamps. Acidic, sphagnous, wet springs or seeps with a source of flowing water but no standing water.	Existing right-of-way is already cleared; however, suitable habitat may be present in or adjacent to the right-of-way depending on field conditions at the time of construction.					
Rafinesque's eastern big-eared bat (Corynorhinus rafinesquii macrotis)	SE	DWR VaFWIS, DCR	Most often found in houses, or sometimes hollow trees, behind loose bark, in culverts, or in caves and mines. Prefer roosting sites near mature forests and adjacent to rivers and other permanent bodies of water.	Species confirmed as present by VaFWIS Search Report. Rebuild Project to be constructed within existing cleared ROW, no impacts are anticipated.					

FE= Federally listed as endangered, FT = Federally listed as threatened, FPE = Federally proposed as endangered, FPT = Federally proposed as threatened, SE=State listed as endangered, ST=State listed as threatened

A Project Review request was submitted to DCR on March 10, 2025. DCR completed its Project Review, as discussed in detail below, and provided its response on April 8, 2025 (See <u>Attachment 2.G.2</u>). According to this official review, DCR concluded that the Rebuild Project does not cross any State Natural Area Preserves under DCR's jurisdiction.

The Rebuild Project crosses the Chickahominy River – I295 to Grapevine Stream Conservation Sites ("SCS"). SCSs are given a biodiversity significance ranking bases of the rarity, quality, and number of element occurrences they contain. The Chickahominy River – I295 to Grapevine SCS has a ranking of B2, which represents a site of very high significance. DCR recommends the implementation and strict adherence to applicable state and local erosion and sediment control/stormwater management laws and regulations. As noted in Section 2.H, the Rebuild Project will be constructed in accordance with the DEQ approved the Company's Standards & Specification for Erosion & Sediment Control and Stormwater Management for Construction of Linear Electric Transmission Facilities (TE VEP 8000) and no in water work is proposed for the Rebuild Project. As such impacts to the Chickahominy River – I295 to Grapevine SCS are not anticipated.

The Rebuild Project also crosses the Possum Run Seep Conservation Site which has a ranking of B3 which represents an sit of high significance. The natural heritage resources associated with this conservation side is New Jersey Rush. The Project Review suggests surveys be conducted within the Roxbury Quadrangle during the fruiting period of this plant. Temporary impacts to vegetation will occur during construction of the Rebuild Project; however, as the project consists of rebuilding an existing transmission line no permanent change in habitat will occur. If the existing maintained right-of-way were to currently provide suitable habitat for New Jersey Rush, this habitat would continue to exist post construction. As such, the Company is not proposing surveys be completed for New Jersey Rush.New and updated information is continually added to DCR's Biotics database. The Company shall re-submit Rebuild Project information and a map 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.⁶

H. Erosion and Sediment Control

The DEQ approved the Company's Standards & Specification for Erosion & Sediment Control and Stormwater Management for Construction of Linear Electric Transmission Facilities (TE VEP 8000). These specifications are given to the Company's contractors and require erosion and sediment control measures to be in place before construction of the line begins and specifies the requirements for rehabilitation of the right-of-way. A copy of the current DEQ approval letter dated February 27, 2024 is provided as Attachment 2.H.1. According to the approval letter, coverage is effective from February 27, 2024, through February 26, 2025. The Company is actively coordinating with DEQ to renew the Standards and Specifications and will continue to operate under the currently approved agreement until agency approval is obtained.

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

The Company retained Dutton + Associates ("Dutton" or "D+A") to conduct a Stage I Pre-Application Analysis ("Stage I Analysis") of potential impacts on cultural resources for the proposed Rebuild Project in accordance with the Virginia Department of Historic

⁶ The Company updated this commitment consistent with discussions held between the Company and DCR-DNH representatives on August 23, 2022.

Resources' ("VDHR") Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia (Guidelines) (VDHR 2008). A copy of the Stage I Analysis, which was provided to VDHR on April 8, 2025, is included as <u>Attachment 2.I.1</u>. 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 1.5-mile radius of the Rebuild Project centerline;
- National Register of Historic Places (NRHP")-listed properties, battlefields, and historic landscapes located within a 1.0-mile buffer of the Rebuild Project centerline;
- NRHP-eligible and -listed properties, NHLs, battlefield, and historic landscapes within a 0.5-mile radius of the Rebuild Project centerline; and
- Qualifying architectural resources and archaeological sites located within the right-of-way of the Rebuild Project.

Information on cultural resources within each of these study tiers was obtained from the Virginia Cultural Resource Information System ("VCRIS"). Following identification and field inspection of historic properties, D+A assessed each architectural resource for potential impacts from the Rebuild Project. Assessment of impacts was conducted through a combination of field inspection, digital photography, review of topography and aerial photography, and photo simulation. Photo simulations were prepared to depict the new transmission infrastructure from vantage points within or near each resource. The photo simulations used digital photography, facing from the resources towards the Rebuild Project, which was then loaded into a computer with location and ground-elevation data. The transmission line structures to be built as part of the Rebuild Project were computer modeled to represent their location, height, and configuration within the viewshed of a resource. The models were then overlaid onto the digital photography so that the existing (unaltered) view can be compared with the simulated view illustrating the proposed structures, as they would appear on the landscape. Archaeological assessment was limited to desktop review of project improvements in relation to previously delineated site boundaries, however, existing conditions of sites remain unknown at this level of investigation.

A summary of the considered resources identified in the vicinity of the Rebuild Project and recommendations concerning the Rebuild Project's effects on these resources is provided in the following discussion. The information presented here is derived from existing records and is in accordance with VDHR's Guidelines and does not purport to encompass the entire suite of historic and archaeological resources that could be affected by the Rebuild Project.

A review of the VDHR VCRIS indicates that thirty-one previously recorded archaeological sites fall within or adjacent to the existing right-of-way of the Rebuild Project. Two were

determined potentially eligible for listing in the NRHP and five were determined eligible for listing in the NRHP (see Table I-1 below). Because a formal archaeological survey has not been conducted as part of this Rebuild Project, the potential impacts of the Rebuild Project on archaeological sites have not yet been fully determined, however, a preliminary assessment of potential impacts was conducted based upon previous site data and preliminary Rebuild Project details. A formal evaluation of these sites would be required as a part of an archaeological survey to determine their eligibility for listing in the NRHP. This would be followed by an assessment of the Rebuild Project's impacts for any site recommended eligible for listing on the NRHP if the site could not be avoided. Additional information on these sites is provided in <u>Attachment 2.I.1</u>.

Table I-1. Previously Recorded Archaeological Resources in the Existing Right-of-Way for the Rebuild Project*						
Buffer(miles) VDHR #		Description	Temporal Context	NRHP Status		
	44CC0320	Dwelling, single	Historic/Unknown	Not Evaluated		
	44CC0322	Dwelling, single, Trash pit	20th Century: 2nd quarter (1925 - 1949)	Not Evaluated		
	44CC0390	Camp	Late Archaic (3000 - 1201 B.C.), Middle Woodland (300 - 999 A.D.)	DHR Staff: Potentially Eligible		
	44CC0477	Artifact scatter, Other	Pre-Contact, Early National Period (1790 - 1829), Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916)	Not Evaluated		
	44HE0066 <null></null>		<null></null>	DHR Staff: Not Eligible		
	44HE0158	Camp	<null></null>	DHR Staff: Not Eligible		
0.0 (within ROW)	44HE0159	Camp	Middle Archaic (6500 - 3001 B.C.), Late Archaic (3000 - 1201 B.C.), Early Woodland (1200 B.C 299 A.D.)	Not Evaluated		
	44HE0160 Ca	Camp	Early Woodland (1200 B.C 299 A.D.)	Not Evaluated		
	44HE0161	Camp	<null></null>	Not Evaluated		
	44HE0162	Camp	Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E), Late Woodland (1000 - 1606)	Not Evaluated		
	44HE0275	Artifact scatter	Pre-Contact	Not Evaluated		
	44HE0769	Camp, temporary	Middle Woodland (300 - 999 C.E)	DHR Staff: Not Eligible		
	44HE0780	Camp, temporary	Prehistoric/Unknown (15000 B.C 1606 A.D.)	DHR Staff: Not Eligible		

Table I-1. Previously Recorded Archaeological Resources in the Existing Right-of-Way for the Rebuild Project*					
Buffer(miles)	VDHR#	Description	Temporal Context	NRHP Status	
	44HE0781	Camp	<null></null>	Not Evaluated	
	44HE0809	<null></null>	Pre-Contact	DHR Staff: Not Eligible	
	44HE0966	Earthworks, Other	Prehistoric/Unknown (15000 B.C 1606 A.D.), 19th Century: 2nd quarter (1825 - 1849)	DHR Staff: Not Eligible	
	44HE1063	Camp	Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Middle Woodland (300 - 999 C.E), Late Woodland (1000 - 1606)	DHR Staff: Potentially Eligible	
	44HE1065	Camp, Village/Town	Paleo-Indian (15000 - 8501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E), Late Woodland (1000 - 1606)	DHR Staff: Eligible	
	44HN0055	Camp, Trash scatter	Woodland (1200 B.C 1606 A.D.), 19th Century (1800 - 1899)	DHR Staff: Eligible	
	44HN0056	<null></null>	Woodland (1200 B.C 1606 A.D.)	Not Evaluated	
	44HN0059	<null></null>	Prehistoric/Unknown (15000 B.C 1606 A.D.)	Not Evaluated	
	44HN0112	Other	Prehistoric/Unknown (15000 B.C 1606 A.D.)	Not Evaluated	
	44HN0202	Camp	Prehistoric/Unknown (15000 B.C 1606 A.D.)	DHR Staff: Eligible	
	44HN0203	Camp	Prehistoric/Unknown (15000 B.C 1606 A.D.)	DHR Staff: Eligible	
	44HN0204	Camp	Middle Archaic (6500 - 3001 B.C.), Late Archaic (3000 - 1201 B.C.), Woodland (1200 B.C 1606 A.D.)	DHR Staff: Eligible	
	44HN0205	Earthworks	19th Century: 3rd quarter (1850 - 1874)	Not Evaluated	
	44HN0206	Camp	Prehistoric/Unknown (15000 B.C 1606 A.D.)	Not Evaluated	
	44HN0207	Camp	<null></null>	Not Evaluated	
	44HN0237	<null></null>	<null></null>	DHR Staff: Not Eligible	
	44HN0332	Other	Prehistoric/Unknown (15000 B.C 1606 A.D.)	DHR Staff: Not Eligible	

	Table I-1. Previously Recorded Archaeological Resources in the Existing Right-of-Way for the Rebuild Project*							
Buffer(miles)	Buffer(miles) VDHR # Description Temporal Context NRHP Status							
	44HN0474	Railroad bed	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	Not Evaluated				

^{*}Bold font denotes site is considered eligible or potentially eligible for listing in the NRHP

Table I-2. NHL/VLR, NRHP-listed, eligible, and battlefield resources within 1.5 miles of the vicinity of the Proposed Rebuild Project.							
Buffer(mil es)	Considered Resources	VDHR#	Description	Impact			
1.5	National Historic Landmarks	None	None	Not Applicable			
	National Historic Landmarks	None	None	Not Applicable			
	National Register-	042-0137	Oakley Hill	No Impact			
	Listed	042-5509	Ashland UDC Jefferson Davis Highway Marker	No Impact			
1.0	Battlefields	042-5022	Battle of Bethesda Church (Historic), Battle of Crumps Creek (Historic), Battle of Hanovertown (Historic), Battle of Shady Grove Road (Historic), Totopotomoy Creek Battlefield (Current Name)	No Impact			
	Historic	None	None	Not Applicable			
	Landscapes	None	None	Not Applicable			
	National Historic Landmarks	None	None	Not Applicable			
	National Register- Listed Battlefields	042-0120	Hogan House, 6279 Powhite Farm Drive	No Impact			
		043-6408	Indian Springs Farm Site (NRHP Listing), Wilson Site (Historic)	No Impact			
0.5		043-0307	Battle of Chaffin's Farm, New Market Road (Historic/Location), New Market Heights Battlefield (Historic/Current)	No Impact			
		043-5077	Frazier's Farm (Historic), Glendale Battlefield (Current Name), Glendale Battlefield (Historic), Nelson's Farm (Historic)	No Impact			

NI	IL/VLR, NRHP-liste		Table I-2. battlefield resources withi posed Rebuild Project.	n 1.5 miles of the vicinity
		043-5273	Battle of Garnett's and Golding's Farm (Historic/Location)	Minimal Impact
	Historic Landscapes	None	None	Not Applicable
		007-5513	Virginia Central Railroad	Minimal Impact
	National Register-	043-0175	Ravenswood (Current)	No Impact
	Eligible	043-0800	Antique Carousel, Virginia Center Commons	Demolished (No Impact)
	National Historic Landmarks	None	None	Not Applicable
	National Register- Listed	043-0033	Richmond National Battlefield Park	Minimal Impact
		018-5004	Saint Mary's Church Battlefield	Minimal Impact
		042-5017	Second Cold Harbor Battlefield	Minimal Impact
		042-5018	First Cold Harbor Battlefield, Gaines' Mill Battlefield	Minimal Impact
0.0	Battlefields	042-5479	Beaver Dam Creek Battlefield (Current Name)	No Impact
(ROW)		043-0308	Savage Station Battlefield	Minimal Impact
		043-5081	Fair Oaks (Historic), Seven Pines Battlefield (Historic)	Minimal Impact
		043-5108	Yellow Tavern Battlefield (Historic)	Minimal Impact
	Historic Landscapes	None	None	Not Applicable
	National Pagister	043-5347	Richmond-Ashland Trolley Line	Minimal Impact
	National Register- Eligible	121-5134	Chesapeake and Ohio Railroad (Historic), CSX Railroad (Current Name)	Minimal Impact

Twenty-one architectural resources that conform to the categories in the VDHR's tiered study area were identified for the Rebuild Project (see Table I-2 below). Additional information on these sites, including photo simulations and mapping, is provided in Attachment 2.I.1.

J. Chesapeake Bay Preservation Areas

Hanover County, Henrico County, and Charles City County are subject to the Chesapeake Bay Preservation Act ("CBPA"), which regulates development of lands that could impact water quality in the Chesapeake Bay and its tributaries. Chesapeake Bay Preservation

Areas that help maintain water quality are broken into Resource Protection Areas ("RPAs"), including tidal wetlands, tidal waterbodies, perennially flowing streams, wetlands associated with perennially flowing streams, and a 100-foot buffer around them; and Resource Management Areas, land that could degrade water quality of value of RPAs. As such, RPAs are located around perennial waterbodies and associated wetland areas along the Rebuild Project, including, Chickahominy River, Horse Swamp Creek, Beaverdam Creek, and Boatswain Creek.

Construction, installation, operation and maintenance of electric transmission lines are conditionally exempt from the CBPA as stated in the exemption for public utilities, railroads, public roads, and facilities in 9 VAC 25-830-150. The Company will meet those conditions and will use Best Management Practices to limit impacts to CBPA areas to the maximum extent possible while safely and effectively constructing and maintaining this infrastructure.

K. Wildlife Resources

Relevant agency databases were reviewed to determine if the proposed Rebuild Project has the potential to affect any threatened or endangered species, and a request for Project Review was submitted to DCR as described in Section 2.G and included as <u>Attachment 2.G.1</u> and <u>Attachment 2.G.2</u>, respectively. As discussed in Section 2.G, certain federal and state listed species were identified as confirmed and potentially occurring in the vicinity of the Rebuild Project. Since the proposed Rebuild Project is a rebuild of a transmission line within existing right-of-way and minimal clearing is needed to support construction activities, no loss of wildlife habitat is anticipated. The Company will coordinate with the USFWS, DWR, and DCR Department of Natural Heritage ("DCR-DNH") as appropriate to determine whether surveys are necessary and to minimize impacts on wildlife resources.

L. Recreation, Agricultural and Forest Resources

The general character of the area crossed by the existing ROW to be used for the Rebuild Project is characterized as predominantly agricultural, open, forested, wetlands, low density residential, and developed. The Rebuild Project is expected to have minimal incremental impacts on recreational, agricultural, and forest resources as the right-of-way is existing and no additional right-of-way is required.

The Company reviewed publicly available data sets and maps, County websites, and recent digital aerial photography to identify recreational areas within 0.5-mile of the Rebuild Project. Eleven recreational areas were identified as shown in Table L-1 below. Given the distance between four of these recreational areas (Woodside Park, Glover Park, Mill Square Park, and Capital Park) and the Rebuild Project, and that the project consists of the rebuilding an existing transmission line and the construction of a new, no new impacts to these four recreational areas are anticipated.

Eight recreational facilities are crossed by the existing transmission line right-of-way that will be utilized for the Rebuild Project. These sites include the River Mill Homeowners' Private Nature Trail, Vawter Street Park, Meadowview Park, Captain John Smith

Chesapeake National Historic Trail, U.S. Bike Route 76, Conservation Park of Virginia, and Richmond National Battlefield Park.

Table L-1. Recreational Areas within 0.5 miles of the Proposed Rebuild Project						
Name	Facilities Summary	Distance/Direction from Proposed Rebuild Project (Miles)				
Woodside Park	Pond, Sidewalk,	0.43 NW				
Capital Park	Soccer Fields, Parking Lot	0.36 E				
Glover Park	Four Turf Fields, Eight Sand Volleyball Courts, Restrooms, and Parking Lot	0.24 SW				
Mill Square Park	Picnic Tables, Shelter, Hammocks, Open Space, Trail, Parking Lot	0.13 S				
Fall Line Trail	Trail	0.00				
River Mill Homeowners Private Nature Trail	Trail	0.00				
Captain John Smith Chesapeake National Historic Trail	Water Trail	0.00				
U.S. Bike Route 76	3-Shared Lane, U.S. Bicycle Route	0.00				
Vawter Street Park/Glen Lea Recreation Area	Playground, Picnic Tables, Shelter, Baseball Field, Softball Field, Football Field, Trail	0.00				
Meadowview Park	Scenic Walking Trail, Tennis Courts, Garden, Fountain, Children's Garden and Play Areas	0.00				
Conservation Park of Virginia	Recreational and Wildlife Sanctuary Consisting of 1500 acres	0.00				
Richmond National Battlefield Park	Consists of Twelve Sites and Four Visitor Centers	0.00				

Of the eight recreational facilities crossed by the Rebuild Project, four are linear facilities including Fall Line Trail, River Mill Homeowner's Private Nature Trail, Captain John Smith Chesapeake National Historic Trail, and U.S. Bike Route 76. No new right-of-way will be required, and visual impacts are anticipated to be minimal as recreational users are likely accustomed to the existing transmission line crossings of these trails and/or roadways. Short-term temporary impacts may occur during construction of the Rebuild Project including temporary trail closures and increase traffic from construction vehicles. A summary of the four linear recreational facilities crossed by the Rebuild Project is provided below:

The Fall Line Trail is an approximately 43-mile multi-use trail in Central Virginia connecting Chesterfield, Hanover, and Henrico counties. Portions of the trail are open to the public, while other sections are under construction or will be heading for construction in late 2025. Within the vicinity of the Rebuild Project, that Fall Line Trail wraps around the eastern side of the Elmont Substation and is located within the existing transmission line right-of-way to be utilized for the Rebuild Project for approximately 0.8 mile, until the trail crosses Holly Hill Road. This portion of the trail is under construction as of Spring 2025. Maintenance and programming agreements are under development by trail

administration partners. The Virginia Department of Transportation ("VDOT") has committed to maintaining the paved sections of the trail. Coordination with VDOT will occur prior to construction.

The River Mill Homeowners' Private Nature Trail is a private trail in the River Mill Homeowners Association ("HOA") that provides residence with access to a dirt nature trail that follows a portion of the Chickahominy River through the HOA. A portion of the trail follows the southern boundary of the existing transmission line right-of-way. The trail is crossed southeast of Elmont Substation between Holly Hill Road and Washington Highway.

The Captain John Smith Chesapeake National Historic Trail ("NHT") was established in 2006 as the first national water trail. The trail traces approximately 3,000 miles of John Smith's voyages in the Chesapeake Bay and nine of its major tributaries including the Chickahominy River, which is crossed by the Rebuild Project. Historic markers and museums have been installed along the water trail, and the trail provides access to various opportunities for viewing natural resources including marsh and shoreline habitats. The Rebuild Project parallels the Chickahominy River within the extent of the NHT and crosses the river in one location (at the boarder of Hanover and Henrico counties) within the extent of the NHT.

U.S. Bicycle Route 76 is a cross-country bicycle route that extends from Kansas to Virginia. Within the Rebuild Project area, the trail follows Route 156 (Cold Harbor Road) and is crossed by the existing transmission line right-of-way in one location, approximately 1 mile east of where Route 156 intersects with Interstate 295.

The remaining four recreational facilities that are crossed by the Rebuild Project are established parks. In all instances the Rebuilt Project will cross the parks within the previously established transmission line ROW and no new ROW will be required. While rebuilt transmission line structures may increase in height at some park crossing locations, visual impacts are anticipated to be minimal as recreational users of the park are likely accustomed to the existing transmission line in the area. Short-term temporary impacts may occur during construction of the Rebuild Project including temporary closures or access restrictions to portions of parks and increased traffic from construction vehicles. A summary of the four parks crossed by the Rebuild Project is provided below:

- Vawter Street Park/Glen Lea Recreation Area is a Henrico County Park which consists of a baseball/softball field, concession stand, picnic area, playground, restrooms, and a soccer/football field and trails. This park is crossed by the existing ROW between Richmond Henrico Turnpike and Mechanicsville Turnpike.
- Meadowview Park is a Henrico County Park which consists of scenic walking trails, tennis courts, a garden, fountain, and children's gardens and play areas. The park is crossed by the existing ROW between Mechanicsville Turnpike and Creighton Road.

- Conservation Park of Virginia is a privately managed park that consists of 1,500 acres in Charles City County, Virginia. Approximately 1,450 acres of the Conservation Park is managed for wildlife. The remaining 50 acres of the park are devoted to recreational facilities including skeet fields, trap fields, five stand rifle range, pistol ranges, archery range, picnic areas, nature trails, and a clubhouse. A CSX Railroad borders the north boundary of Conservation Park and the park is crossed by the existing ROW between CSX Railroad and Charles City Road.
- Richmond National Battlefield Park is managed by the National Park Service and the mission of the park is to protect, maintain, and provide for the enjoyment and understanding of historic resources associated with the Civil Ware battles fought near Richmond, Virginia. The park encompasses scattered parcels with battlefield sites and visitor centers located in the City of Richmond, and in Henrico, Hanover, and Chesterfield Counties. The Rebuild Project crosses Richmond National Battlefield Park in two locations and runs adjacent to the park in one additional location.

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. Charles City, Hanover, and Henrico Counties do not contain Agricultural and Forestal Districts within their jurisdiction under Va. Code § 10.1-1119.7 6. According to Charles City, Hanover, and Henrico Counties Comprehensive Plans, the existing transmission line corridor is located within areas designated as urban areas. No Agricultural Preservation Districts are crossed by the Rebuild Project. The U.S. Department of Agriculture ("USDA") National Resource Conservation Service soils data indicate the existing right-of-way to be used for the Rebuild Project crosses a total of approximately 130.3 acres of prime farmland and approximately 87.5 acres of farmland of statewide importance. There are several agricultural use areas apparent within the right-of-way. These activities have been occurring within the right-of-way while the existing transmission line has been in operation. The Rebuild Project may result in temporary impacts to farmland during construction but would otherwise not be expected to impact farmlands and would not alter the agricultural use.

The Virginia Scenic Rivers Program identifies and designates outstanding scenic, recreational, and historic waterbodies of statewide significance to conserve their natural corridors. The Chickahominy River is designated as a state scenic river from Route 360 downriver to the intersection of the Hanover, Henrico and New Kent County lines. The Rebuild Project generally parallels the Chickahominy River and crosses the mainstem of the river in two locations where it is designated as a state scenic river. While proposed structures will be increasing in height at these two river crossings, visual impacts are anticipated to be minimal as no new right-of-way will be required and existing structures already exist in these crossing locations.

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 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. No VOF easements are crossed by the Rebuild Project.

According to the DCR's NHDE, the existing right-of-way to be used for the Rebuild Project crosses three existing conservation easements, a Ducks Unlimited easement US-VA-31-1, and two Nature Conservancy easements (Chickahominy River Megasite, and an unnamed easement). These easements were established after the Company's initial establishment of the transmission corridor. The Rebuild Project also crosses land in Hanover County that is held by the Civil War Trust. The Company does not expect new easements will be required for the Rebuild Project as it will be located within the existing rights-of-way of Lines #557 and #2075.

The Rebuild Project as proposed takes place entirely within existing right-of-way. Routine right-of-way maintenance requires trimming of tree limbs along the right-of-way edges and/or trimming for access roads along the corridor to support construction activities. Any tree along the right-of-way that is tall enough to endanger the conductors if it were to break at the stump or uproot and fall directly toward the conductors and exhibits signs or symptoms of disease or structural defect that make it an elevated risk for falling, will be designated as a "danger tree" and may be removed. The Company's arborist will contact the property owner if possible before any danger trees are cut, except in emergency situations. The Company's Forestry Coordinator will inspect the rights-of-way within the field and designate any danger trees present. Qualified contractors working in accordance with the Company's Electric Transmission specifications will perform all danger tree cutting. As such, the Rebuild Project is expected to have minimal impacts on forest resources.

M. Use of Pesticides and Herbicides

Of the techniques available, selective foliar is the preferred method of herbicide application. The Company typically maintains transmission line right-of-way by means of selective, low volume applications of EPA-approved, non-restricted use herbicides. The goal of this method is to exclude tall growing brush species from right-of-way by establishing early successional plant communities of native grasses, forbs, and low growing "Selective" application means the Company sprays only the woody vegetation. undesirable plant species (as opposed to broadcast applications). "Low volume" application means the Company uses only the volume of herbicide necessary to remove the selected plant species. The mixture of herbicides used varies from one cycle to the next to avoid the development of resistance by the targeted plants. There are four means of dispersal available to the Company, including by-hand application, backpack, fixed nozzleradiarc, and aerial. Very little right-of-way maintenance incorporates aerial equipment. The Company uses licensed contractors to perform this work that are either certified applicators or registered technicians in the Commonwealth of Virginia.

DEQ has previously requested that only herbicides approved for aquatic use by the EPA or the USFWS be used in or around any surface water. The Company intends to comply with this request. Additionally, based on a discussion between Company and DCR-DNH representatives, the Company reviewed its Integrated Vegetation Management Plan ("IVMP") for application to both woody and herbaceous species based on the species list available on the DCR website. The Company continues to coordinate with DCR-DNH on an addendum to the IVMP to further explain how the Company's operations and maintenance forestry program addresses invasive species. Most recently, on January 21, 2025, the Company met with DCR to continue ongoing coordination. At that time, the Company committed to providing DCR with the most recent working draft of the IVMP addendum and a list of the recommended shrub species for planting within the Company's electric transmission right-of-way for review. The Company's recommended planting list is for customers to reference when planting shrub species within its transmission rights-of-way on private property. Those documents were shared with DCR on February 7, 2025.

Updates to the Company's recommended shrub species planting list include: (i) addition of a QR code providing a direct link to DCR's invasive species list, (ii) addition of a link to DCR's website for invasive species information, (iii) incorporation of additional native species, and (iv) removal of all invasive species.

The Company is continuing to coordinate with DCR to identify ways to collaborate that are consistent with the Company's IVMP and will provide the outcome of those efforts.

In November 2023, the Company submitted the addendum draft to DCR for review and continued discussions. DCR provided an initial response to the addendum in January 2024. The Company will continue to meet with DCR-DNH to further discuss the documentation provided. Once the addendum is finalized, the Company will report on the results of its communications with DCR-DNH in future transmission certificate of public convenience and necessity filings.⁷

N. Geology and Mineral Resources

The proposed Rebuild Project is located within the Piedmont and Coastal Plain geologic provinces. The Piedmont geologic province is the largest geologic province in the state and is bounded on the east by the Fall Zone and on the west by the mountainous Blue Ridge province and the terraced slopes of the Coastal Plain province to the east. The Piedmont province is characterized by rolling topography, thick soils, and deeply weathered bedrock due to the region's humid climate. Bedrock in the Piedmont province includes a variety of igneous and metamorphic rock formations. Geologic formations crossed by the Proposed Rebuild Project include but are not limited to: Pliocene sand and gravel, Chesapeake

⁷ See Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: 230 kV Line #293 and 115 kV Line #83 Rebuild Project, Case No. PUR-2021-00272, Final Order at 9-11 (Aug. 31, 2022) ("Lines #293 and #83 Rebuild") (Commission agreed with the Chief Hearing Examiner and declined to adopt DCR-DNH's recommendation regarding an invasive species management plan ("IVMP"), but directed the Company to meet with DCR-DNH and to report on the status of the meetings in the Company's next transmission CPCN filing); see also Report of Alexander F. Skirpan, Jr., Chief Hearing Examiner, Lines #293 and #83 Rebuild (June 22, 2022) at 22 (agreeing with the Company that, with its IVMP, the Company should not be required to undergo the additional cost of DCR-DNH's ISMP; however, recommending that the Company meet with DCR-DNH regarding its IVMP and report the results of the meeting in the next transmission CPCN filing).

Group, Bacons Castle Formation, Windsor Formation, Miocene sand and gravel, and Alluvium.

The Coastal Plain geologic province has the greatest area and diversity of wetlands among other provinces. The province is bounded on the east by the Atlantic Ocean and on the west by the Fall Zone which occurs on the eastern edge of the Piedmont province. The Coastal Plain province is characterized as a low-relief, terraced landscape that slopes gently toward the Atlantic Ocean from its highest elevations at the fall line. It is underlain by a wedge of Cretaceous and Tertiary sediments that increases in thickness from a feather edge at the Fall Zone to thousands of meters at the offshore edge of the North American continental shelf.

C2 Environmental reviewed USGS topographic quadrangles, digital aerial photographs, and a search of the Virginia Department of Energy ("VDOE") online resources to identify mineral resources within 0.25-mile of the Rebuild Project. Based on that review one mineral resource was identified: Grapevine Road Pit (90296AA), which had a status of Abandoned. Grapevine Road Pit (90296AA) was identified through the VDOE online resources. It is depicted on the VDOE website as being accessible from Woods Road. A review of recent (2023) aerial photography and parcel data, the Grapevine Road Pit was confirmed as not being directly crossed by the Rebuild Project and as such, no impacts to the site are expected. The Company does not anticipate that the Rebuild Project will result in negative impacts to geology or mineral resources.

O. Transportation Infrastructure

Road and Railroad Crossings

The existing transmission line corridor to be used for the Rebuild Project extends approximately 27.7 miles between the existing Chickahominy Substation and the existing Elmont Substation. Three interstates, Interstate 295 (I-295), Interstate 95 (I-95), and Interstate 64 (I-64) extend across the proposed Rebuild Project. Other roads crossed by the existing right-of-way include: E Williamsburg Road (US-60E), White Oak Road, Mechanicsville Turnpike (US-360E), Hope Haven Drive, Turkey Hill Trail, Swamp Lane, Cold Harbor Road, Chambers Road, Charles City Road (SC-600E), Holly Hill Road, Washington Highway, Chamberlayne Road (US-301N), Power Road, Creighton Road (SC-615N), North Airport Drive (VA-156N), Richmond Henrico Turnpike (CR-7609N), Roxbury Road (VA-106N), Telegraph Road, Rivermere Lane, and private roads.

Temporary closures to roads and or traffic lanes may be required during construction of the Rebuild Project. No long-term impacts to roads are anticipated and the Company will comply with VDOT and Henrico County requirements for access to the right-of-way from public roads. At the appropriate time, the Company will obtain the necessary VDOT and Henrico County permits as required and comply with permit conditions. Increases in structure heights will cause a minor change in visual impacts to drivers along these roadways. As all of these roads already have transmission line crossings, impacts are expected to be minimal.

There are three railroads crossed by the Rebuild Project including CSX Transportation, Norfolk Southern Railway, and the Shortline. The Company will coordinate with the owners of these railroads to acquire the required permits prior to construction.

Airports

The design of the Rebuild Project must prevent interference with pilots' safe ingress and egress at airports in the vicinity of the Rebuild Project. Such hazards or impediments include interference with navigation and communication equipment and glare from materials and external lights.

The Company reviewed the Federal Aviation Administration's ("FAA") website, aerial photography, and the AirNav website to identify public use airports, airports, or heliports with at least one FAA-approved instrument approach procedure, and public use or military airports under construction within 10.0 miles of the Rebuild Project. Table O-1 provides a summary of airports and heliports identified, including private use airports and helipads.

Table O-1. Summary of Airports and Heliports Within 10.0 miles of the Rebuild Project					
Name	Approximate Distance and Direction from the Rebuild Project	Use			
Hanover County Municipal Airport (OFP)	2.38 NM E	Public			
Richmond International Airport (RIC)	4.22 NM SW	Public			
New Kent County Airport (W96)	4.25 NM E	Public			
VCU Health System-Main Hospital Heliport (VG45)	3.55 NM SW	Private			
VCU Health System-I Lot Heliport (8VA0)	3.16 NM SW	Private			
Innsbrook Technical Center Heliport (VG02)	5.24 NM W	Private			
Innsbrook Pavilion Heliport (9VA8)	5.66 NM W	Private			
St. Mary's Hospital Heliport (37VA)	4.75 NM W	Private			
Chippenham Hospital Heliport (6VA3)	7.71 NM SW	Private			
McGuire Va Medical Center Heliport (0VA6)	6.62 NM SW	Private			
VCU Health New Kent ED Heliport (99VA)	0.75 NM W	Private			

Three public airports were identified (Hanover County Municipal Airport, Richmond International Airport, and New Kent County Airport). Based on the review of the FAA defined Civil Airport Imaginary Surfaces and Henrico County Airport Overlay District, it was determined that the Rebuild Project is located within approach and transitional surfaces for Richmond International Airport. Since the FAA manages air traffic in the United States, it will evaluate any physical objects that may affect the safety of aeronautical operations through an obstruction evaluation. If required during the permitting process, the Company will submit an FAA Form 7460-1 Notice pursuant to 14 CFR Part 77 for any structure locations that meet the review criteria.

The regulations that govern objects that may affect navigable airspace are codified in the Code of Federal Regulations, Title 14, Part 77. In these regulations, it states that restrictions to structure heights only apply to public used airports and do not apply to privately owned airports. The privately owned airports and heliports identified are located between 0.75 and 7.71 miles from the Rebuild Project. Even though private airports are not granted the same height restrictions from the surrounding area (as opposed to a public use airport), the Rebuild Project should not have any impacts on the navigable airspace of these airports and FAA Form 7460-I Notice will be submitted as appropriate.

P. Drinking Water Wells

The Company has coordinated with the Virginia Department of Health, Office of Drinking Water ("VDH-ODW") on the Company's analysis of drinking water sources in proximity to the Company's construction projects. VDH-ODW has requested the Company identify known drinking water wells within the Rebuild Project area on the Company's Erosion and Sediment Control Plans. Water wells within 1,000 feet of the Rebuild Project, however, may be outside of the transmission line corridor. The Company does not have the ability or right to field-mark wells located on private property. The Company has agreed to a method of well protection, including plotting and calling out the wells on the Rebuild Project's Erosion and Sediment Control Plan, to which VDH-ODW indicated that the Company's proposed method is reasonable. A copy of that correspondence is included as <a href="https://dx.doi.org/10.1001/journal.org/10

Q. Pollution Prevention

Generally, as to pollution prevention, as part of the Company's commitment to environmental compliance, the Company has a comprehensive Environmental Management System Manual in place that ensures it is complying with environmental laws and regulations, reducing risk, minimizing adverse environmental impacts, setting environmental goals, and achieving improvements in its environmental performance, consistent with the Company's core values. Accordingly, any recommendation by the DEQ to consider development of an effective environmental management system has already been satisfied.

ATTACHMENTS



DESKTOP WETLAND REVIEW CHICKAHOMINY - ELMONT LINE #557 REBUILD AND NEW FUTURE 230 KV LINES

Charles City, Hanover, and Henrico Counties, Virginia

Prepared For:

Dominion Energy Virginia c/o Jacey Hamelman 120 Tredegar Street Richmond, Virginia 23219

Prepared By:

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February 2025

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1.0 INTRODUCTION

C2 Environmental (C2 Env) has been retained by Dominion Energy Virginia (Dominion) to complete a desktop wetland review on the project known as Chickahominy - Elmont Line #557 Rebuild and New Future 230 kV Lines. The approximate 27.7-mile, 812.2-acre project area consists of an existing transmission line right-of-way (ROW) located in Charles City, Hanover, and Henrico Counties, Virginia. The project area originates at the Elmont Substation located southwest of Cedar Lane (Route 623) and east of Old Washington Highway (Route 626), and generally runs to the southeast, terminating at the Chickahominy Substation located east of Route 106 and south of Chambers Road (Route 685).

It should be noted that this study does not include any on-site wetland delineation field investigations utilizing the 1987 Army Corps of Engineers Wetland Delineation Manual in conjunction with the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic Gulf Coastal Plain Region (version 2.0). Rather, publicly available data was used to identify the potential limits of wetlands and other Waters of the U.S. (WOUS).

2.0 DESKTOP DATA SOURCES

Resources used to complete the desktop review include the following:

- VGIN aerial imagery dated 2021;
- VGIN infrared imagery dated 2021;
- Google Earth historic imagery ranging from 1994 to 2021;
- U.S. Geologic Survey (USGS) topographic maps;
- USGS Digital Elevation Model (DEM) 2-foot contour data;
- U.S. Department of Agriculture National Resources Conservation Service (USDA-NRCS) hydric soil survey data;
- U.S. Fish and wildlife service (USFWS) National Wetland Inventory (NWI) wetland mapping;
- Federal Emergency Management Agency (FEMA) 100-year floodplain maps

3.0 METHODOLOGY AND WETLAND OCCURANCE PROBABILITY

Using the available infrared and aerial imagery along with the DEM and USGS topography, potential wetland areas were identified within the study area. The areas identified using the aerial imagery were typically darker in color, which is indicative of inundation or saturated soil conditions associated with wetlands. In many instances these dark signature areas are confined to concave landscapes as defined by the topography. However, wetland occurrence is not limited to concave landforms and can occur in flat landscapes. A probability of occurrence was assigned to each potential wetland based upon the presence or absence of additional supporting data layers including USDA-NRCS hydric soil data, NWI wetland mapping, and FEMA 100-year floodplain maps. Table 1 lists the probability criteria of wetland occurrence based upon the number of layers present in a given area. It should be noted that streams, jurisdictional ditches, and open water have not been assigned a

probability of occurrence and have been identified based upon their consistent presence in multiple years of aerials.

Table 1: Criteria for Probability of Wetland Occurrence

Probability	Criteria	
Low	Areas identified with only topography and aerials.	
Medium	Areas identified with topography and aerials with one additional data source (NRCS hydric soil mapping, NWI wetland mapping, or FEMA 100-year floodplain maps).	
High	Areas identified with topography and aerials with two or more additional data sources (NRCS hydric soil mapping, NWI wetl mapping, or FEMA 100-year floodplain maps).	

4.0 RESULTS

The results of the desktop wetland review are provided in the Desktop Wetland Review Map (Appendix A). The Cowardin Classification of the wetlands within the existing ROW portion of the project area have been combined into palustrine scrub-shrub (PSS) / palustrine emergent wetlands (PEM) and not separated. This is because the majority of the study area is within a maintained ROW, and it is difficult to differentiate between scrub-shrub and emergent wetlands even with the highest resolution aerials. Table 2 lists wetland acreages by probability as well as open water, stream channels, and jurisdictional ditches.

Table 2: Results of Desktop Wetland Review

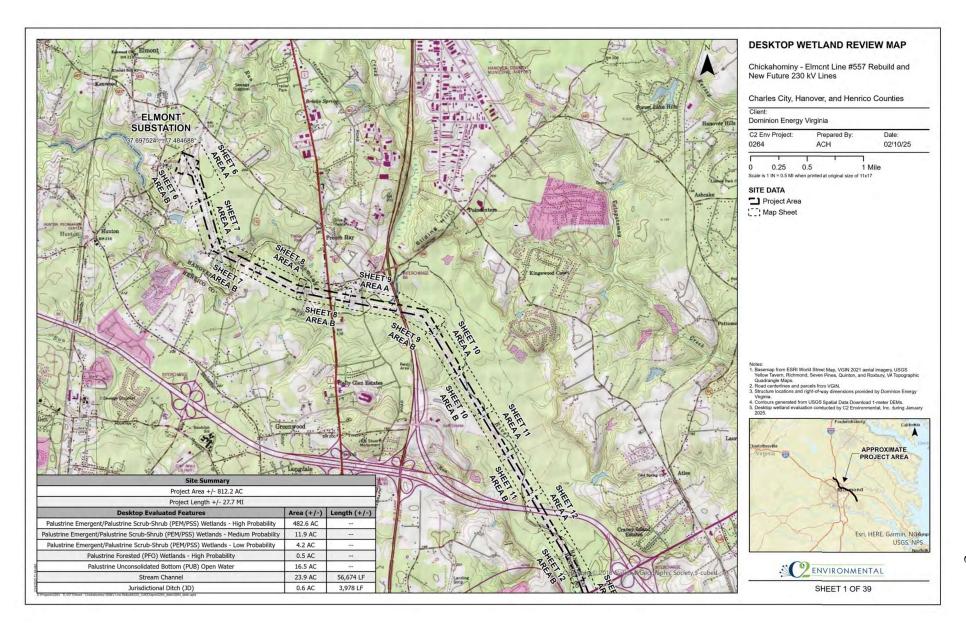
	Low	Medium	High	Total
PEM/PSS Wetlands	4.2 AC	11.9 AC	482.6 AC	498.7 AC
PFO Wetlands			0.5 AC	0.5 AC
Open Water				16.5 AC
Stream Channel				23.9 AC (56,674 LF)
Jurisdictional Ditch				0.6 AC (3,978 LF)

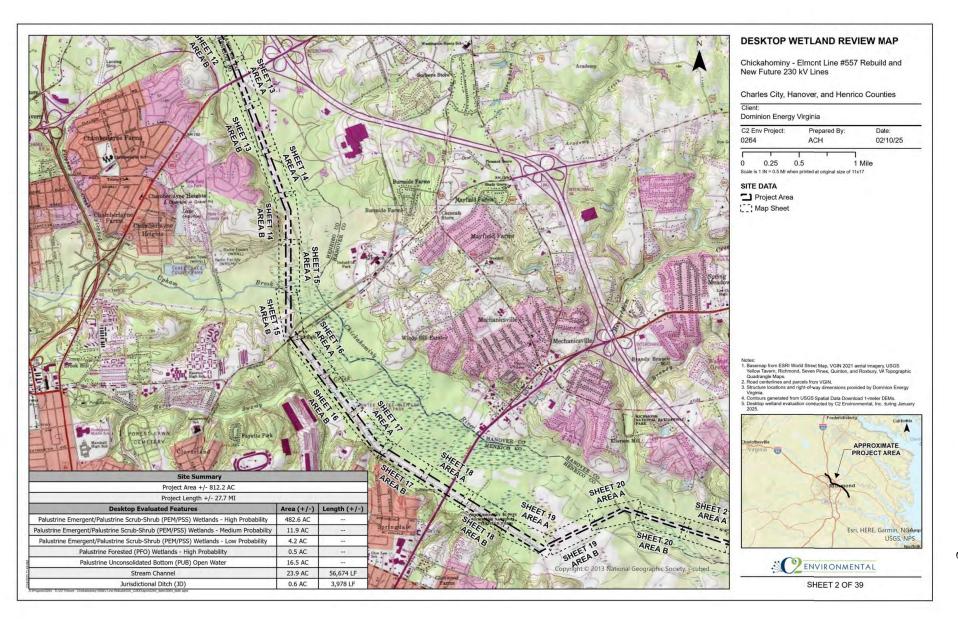
5.0 CONCLUSION

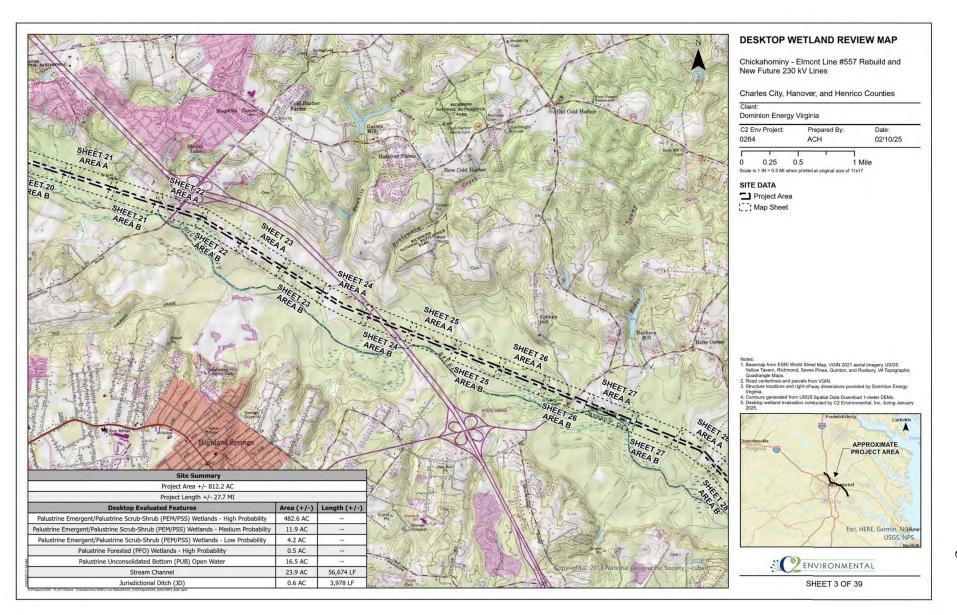
C2 Env performed a Desktop Wetland Review on the Chickahominy - Elmont Line #557 Rebuild and New Future 230 kV Lines project to determine the potential limits of wetlands and other WOUS within the project area using publicly available off-site resources. Prior to any land disturbing activities, C2 Env recommends a detailed delineation of wetlands and other WOUS followed by confirmation by U.S. Army Corps of Engineers.

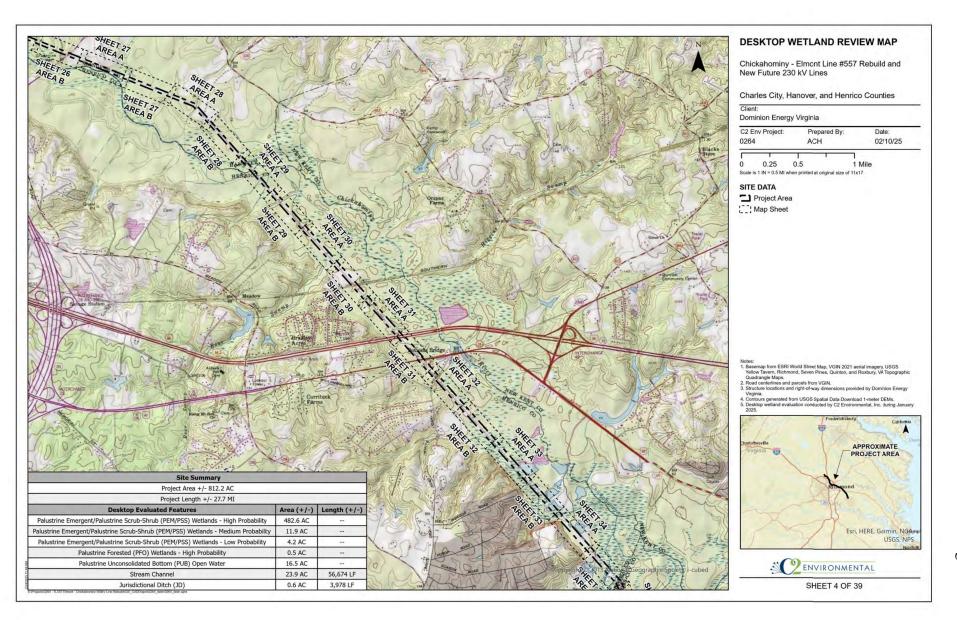
APPENDIX A

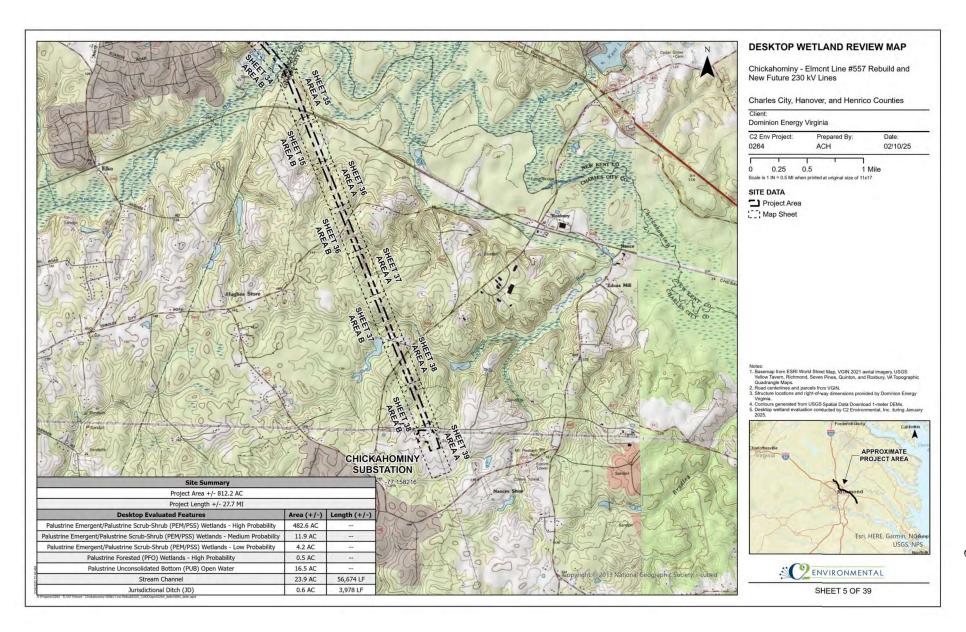
Project Graphics



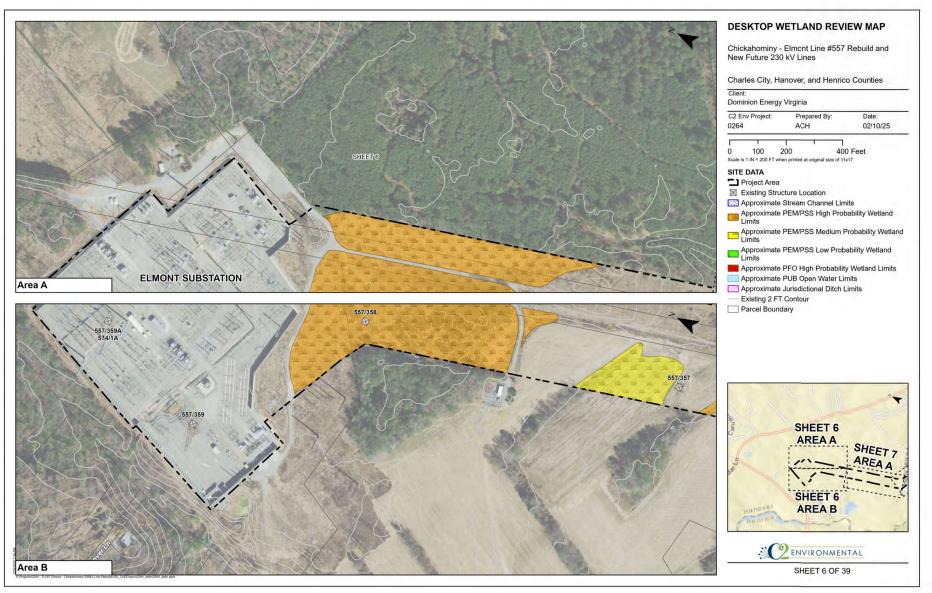








Attachment 2.D.1



DESKTOP WETLAND REVIEW MAP

DESKTOP WETLAND REVIEW MAP

Chickahominy - Elmont Line #557 Rebuild and New Future 230 kV Lines