Dominion Energy®

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

Before the State Corporation Commission of Virginia

230 kV Lines #210 and #243 Extension and 230-34.5 kV Edsall Substation

Application No. 338

Case No. PUR-2024-00135

Filed: July 26, 2024

Volume 2 of 3

COMMONWEALTH OF VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

230 kV Lines #210 and #243 Extension and 230-34.5 kV Edsall Substation

Application No. 338

DEQ Supplement

Case No. PUR-2024-00135

Filed: July 26, 2024

Table of Contents

Page

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 Project by DEQ and other relevant agencies.

1. Project Description

In order to provide service requested by a data center customer (the "Customer"); to maintain reliable service for the overall load growth in the area; and to comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, Dominion Energy Virginia proposes in Fairfax County, Virginia, to:

(i) Extend the Company's existing overhead single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from Van Dorn Substation to the proposed 230-34.5 kilovolt ("kV") Edsall Substation, resulting in (i) 230 kV Edsall-Hayfield Line #210 and (ii) 230 kV Edsall-Ox Line #243 (collectively, the "Edsall Lines"). Specifically, extend existing Lines #210 and #243 approximately 0.9 mile starting from the eastern side of the Van Dorn Substation and terminating at the proposed Edsall Substation. The proposed Edsall Lines will be constructed on entirely new 100-foot-wide right-of way supported by galvanized steel double circuit monopoles utilizing three-phase twin-bundled 768.2 Aluminum Conductor Steel Supported/Trapezoidal Wire/High Strength ("ACSS/TW/HS") conductor with a summer transfer capability of 1,573 MVA.

(ii) Construct a new 230-34.5 kV substation in Fairfax County, Virginia, on property to be obtained by the Company (the "Edsall Substation") and perform substation-related work at the Company's existing Van Dorn Substation, in Fairfax County, Virginia.

The Edsall Lines, Edsall Substation, and substation-related work at the Van Dorn Substation are collectively referred to as the "230 kV Edsall Lines and Substation Project" or the "Project."

The Project is necessary to ensure that Dominion Energy Virginia can provide service requested by the Customer in Fairfax County, Virginia; to maintain reliable service for the overall growth in the load area surrounding the Company's existing Van Dorn Substation (the "Van Dorn Load Area");[1] and to comply with mandatory NERC Reliability Standards. Specifically, the Customer has requested a total of 176 megawatts ("MW") of projected load from Dominion Energy Virginia to serve its planned data center development in Fairfax County, Virginia.

For this Project, the Company retained the services of Dewberry Engineers Inc. ("Dewberry") to help collect information within the study area, identify potential routes, perform a routing analysis comparing the route alternatives, and document

[1] For purposes of this filing, the Van Dorn Load Area is defined generally as the area bounded by the I-495/I-395 interchange and corridors to the west, the I-395 corridor to the north, South Van Dorn Street to the east, and the I-95/I-495 corridor to the south.

the routing efforts in an Environmental Routing Study.

The Company identified an approximately 0.9-mile proposed route for the Edsall Lines (the "Proposed Route"). The Proposed Route originates within the eastern side of the Company's existing Van Dorn Substation. After exiting the substation property, the route continues east for approximately 925 feet and then turns north for approximately 500 feet, crossing the Washington Metropolitan Area Transit Authority ("WMATA") and Virginia Passenger Rail Authority ("VPRA") Richmond, Fredericksburg, and Potomac rail corridors. The route then turns east and continues through the Farrington Avenue industrial complex for approximately 1,350 feet before turning north between two industrial buildings. The Proposed Route continues north for approximately 700 feet, crossing over the Norfolk Southern rail line and Backlick Run. At this point, the route enters into the Customer's planned data center development, to be located within the existing Plaza 500 commercial center, and continues north just east of Turkeycock Run for a distance of approximately 1,100 feet where it turns eastward before terminating at the proposed Edsall Substation, which is located approximately 250 feet southeast of the intersection between Edsall Road and Winter View Drive.

The Proposed Route will be constructed within a new 100-foot-wide right-of-way on galvanized steel double circuit monopole structures with a minimum structure height of approximately 100 feet, a maximum structure height of approximately 150 feet, and an average structure height of approximately 125 feet, based on preliminary conceptual design, not including foundation reveal, and subject to change based on final engineering design.

The proposed Edsall Substation initially will be constructed with four 84 MVA 230-34.5 kV transformers and a 230 kV ring bus with a four circuit breaker configuration, built to 4000 ampere standards. In total, it will be designed to accommodate future growth in the area with one additional 230-34.5 kV transformer and up to sixteen 34.5 kV distribution circuits. The total area of the Edsall Substation is approximately 5.0 acres.

The substation-related work at the existing Van Dorn Substation is necessary in order to extend existing Lines #210 and #243 approximately 0.9 mile starting from the eastern side of the Van Dorn Substation and terminating at the proposed Edsall Substation. As part of this work, the Company will remove an existing tie breaker (210T243) and two single circuit lattice structures, install two 230 kV single circuit backbone structures, and perform protection upgrades all within the Company's existing Van Dorn Substation.

2. Environmental Analysis

The Company solicited comments from all relevant state and local agencies about the proposed Project in letters sent on April 9, 2024. Copies of these letters are included as Attachment 2. The DEQ responded to the Company's request for the proposed Project in an email dated April 10, 2024, attaching the agency's Scoping Response

(see Attachment 2.1). On May 21, 2024, Fairfax County responded to the Company's request for comments. A copy of the County's response is included as Attachment 2.2. The Company will coordinate with Fairfax County to address its comments.

A. Air Quality

For the 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, 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 sedimentation control is addressed below in Section 2.H. 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 those motors will result in minimal air pollution.

Tree clearing will be required for parts of the Project. The Company does not expect to burn cleared material, but, if burning is necessary, the Company will coordinate with the responsible locality to obtain permits, comply with any conditions set forth by the locality, or take actions as otherwise set forth in the Company's right-of-way easements. The Company's tree clearing methods are described in Section 2.L.

B. Water Source

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

On behalf of the Company, Dewberry identified and mapped waterbodies in the vicinity of the Proposed Route using publicly available geographic information system ("GIS") databases, the U.S. Geological Survey ("USGS") topographic quadrangle for Annandale, Virginia (2022), USGS National Hydrography Dataset Plus High Resolution ("NHD"), ESRI World Elevation Terrain Data (2-foot contours), and recent (2023) and historic digital aerial photography (Fairfax County Imagery, ESRI imagery, and Google Earth). The Project is located within the Middle Potomac-Anacostia-Occoquan Hydrologic Unit Code 02070010.

The Proposed Route will utilize an overhead configuration that spans waterbodies. No transmission structures for the Edsall Lines are planned to be placed within waterbodies, though tree clearing will be required within the right-of-way in forested riparian areas at a waterbody crossing. The removal of forested riparian areas adjacent to waterbodies could reduce erosion control, stormwater filtration, and shading at these locations. Impacts to surface waters and riparian habitat will be reduced by minimizing rights-of-way at crossings to the extent possible, leaving roots and stumps in place, and implementing erosion control Best Management Practices during construction.

The Proposed Route crosses perennial Backlick Run. According to U.S. Army Corps of Engineers ("Corps") documentation, no waters considered navigable under Section 10 of the Rivers and Harbors Act are crossed by the Proposed Route for the Project.

Waterbodies in the vicinity of the Proposed Route, inclusive of the proposed Edsall Substation location, are shown on Attachment 2 of the Wetland and Waterbody Desktop Summary for the Project, which is included in Attachment 2.D.1.

Proposed Route

The Proposed Route would have a total of one waterbody crossing. The proposed crossing is of an NHD-mapped waterbody—Backlick Run—a perennial stream channel. Based on Dewberry's desktop wetland and waterbody analysis, the Proposed Route right-of-way encompasses approximately 0.2 acre of riverine wetlands.

Impacts to waterbodies would be limited to the conversion of riparian buffer that would be maintained as a shrub/open meadow habitat within the maintained right-of-way. Where clearing of trees and/or woody shrubs is required, clearing within 100 feet of a stream will be conducted by hand. Vegetation will be cut at or slightly above ground level, and stumps will not be grubbed. Tree removal adjacent to waterbodies could reduce riparian buffer functions such as stream bank stabilization and erosion control, nutrient and sediment filtration, floodwater storage and peak flow reduction, and would increase thermal impacts to riparian corridors due to loss of shading. To protect waterways from soil erosion and sedimentation during construction, the Company will use sediment barriers along waterways and steep slopes. The right-of-way will be maintained with a cover of herbaceous vegetation consistent with an open meadow during operations, which will provide some filtration and stabilization to protect waterbodies from runoff.

During construction, waterbodies will be maintained for proper drainage using culverts or other crossing devices, as needed, according to the Company's standard policies. 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 solicited comments from the Corps and the Virginia Marine Resources Commission ("VMRC") regarding the proposed Project on April 9, 2024. According to a response letter dated April 26, 2024, the Project is located within the jurisdictional areas of the VMRC and may require a permit from the agency. See Attachment 2.B.1 for a copy of the letter and accompanying email. According to the letter, the VMRC, pursuant to § 28.2-1200 *et seq.* of the Code

of Virginia, has jurisdiction over encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water level along non-tidal, natural rivers and streams with a drainage area greater than five square miles, a permit may be required from the VMRC. If necessary, a Joint Permit Application will be submitted for review by the VMRC, DEQ, and the Corps to authorize jurisdictional crossings and for any impacts to jurisdictional features.

C. Discharge of Cooling Waters

No discharge of cooling waters is associated with the Project.

D. Tidal and Non-tidal Wetlands

Tidal wetlands are not present within the Project area. Non-tidal wetlands are summarized below.

On behalf of the Company, Dewberry identified potential wetlands along the Edsall Lines using GIS and remote sensing data sources to conduct an offsite desktop wetland delineation. Sources for this desktop summary include:

- USGS 7.5-minute current (2016-2022) and historic (1994-2013) topographic mapping;
- U.S. Fish and Wildlife Service ("USFWS") National Wetland Inventory ("NWI") mapping;
- U.S. Department of Agriculture-Natural Resources Conservation Service ("NRCS") Soil Survey Geographic ("SSURGO") database for Fairfax County, Virginia;
- Fairfax County Hydrography – Minor Streams (water feature lines) Datasets (Fairfax County Streams);
- Fairfax County Hydrography – Lakes, Rivers, Ponds, and Major Streams (wetland feature polygons) Dataset (Fairfax County Wetlands); and
- USGS NHD.

A copy of Dewberry's Wetland and Waterbody Desktop Summary for the Project is included in Attachment 2.D.1.

Dewberry did not field delineate wetlands along the Proposed Route or within the proposed substation site. A field wetland delineation will be completed for the approved route after the Company receives a final order on the Project.

The Wetland and Waterbody Desktop Summary study determined the approximate locations and extents of potential waters of the United States ("WOTUS"). These areas were assigned a probability of wetland occurrence

ranking ranging from high probability to low probability using a stepwise process to identify probable wetland areas along the Proposed Route, inclusive of the proposed Edsall Substation location, as follows:

1. Natural color aerial photography was used in conjunction with USGS topographic maps, soils maps, and Fairfax County wetland dataset 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."

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

3. Dewberry assigned a probability of wetland occurrence 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 class are outlined in Table D-1 below.

Table D-1
Wetland Probability Criteria

PROBABILITY	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 and waterbody occurrence probabilities ranging from medium to high were identified for the Proposed Route, with acres of affected wetland calculated by probability class and cover type. The probability of wetland and waterbody 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 overlapping data sets. Results for these wetland probability classes are presented below.

The Proposed Route, inclusive of the proposed Edsall Substation location, would cross approximately 0.3 acre of wetlands, including:

- 0.1 acre of palustrine forested ("PFO") wetlands; and
- 0.2 acre of riverine wetlands.

All wetlands will require protective matting to be installed to support construction vehicles, equipment, and materials during construction. While most wetlands are anticipated to be spanned with impacts limited to clearing, permanent impacts would include the clearing-conversion of approximately 0.1 acre of PFO wetland within the proposed Edsall Lines right-of-way. No other permanent impacts to wetlands and waters are anticipated.

Prior to construction, the Company will delineate wetlands and other WOTUS along the Proposed Route 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: Atlantic Gulf Coast Region* (Version 2.0). The Company will obtain all necessary permits for activities that will impact jurisdictional resources.

The Company solicited comments from the Corps and the DEQ Office of Wetlands and Stream Protection ("OWSP") on April 9, 2024.

E. Floodplains

As depicted on the Federal Emergency Management Agency's online Flood Insurance Rate Maps #51059C0295E (effective date 9/16/2010), the majority of the Project area lies within Zone X, which is an area of minimal flood hazard, outside of the 100-year floodplain. A section of the proposed right-of-way north of Backlick Run and east of Turkeycock Run is located in a Zone A flood hazard area, which is an area with a 1 percent annual chance of flooding. The Zone A area is associated with Turkeycock Run. The Company will coordinate with the local floodplain coordinators as required.

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 study area have been identified using publicly available GIS databases obtained from the U.S. Environmental Protection Agency ("EPA") and the DEQ. These databases provide information about 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 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 that were 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 Project. These sites are not discussed further.

Sites regulated by the EPA as Superfund, Brownfield, and RCRA Corrective Action or Emergency Response sites within 1.0 mile of the Project, and sites regulated by the DEQ, including Petroleum Release, VRP, and PREP sites that are located within 1 mile, 1,000 feet, and 200 feet of the Project, were evaluated for potential impacts, as summarized in Tables F-1, F-2, and F-3. The locations of the sites are depicted in Attachment 2.F.1.

TABLE F-1
230 kV Edsall Lines and Substation Project

Environmental Regulated Facilities and Hazardous Waste / Petroleum Release Sites within 1.0 mile of the Edsall Lines Proposed Route

Database	Edsall Lines Proposed Route[a]
Waste	94
Toxics	2
Land	43
Air	52
Water	38
Solid Waste Facilities	6
Petroleum Facilities	80
Petroleum Releases	114
Total [b]	429

[a] The Edsall Substation location is included in the Edsall Lines Proposed Route analysis.
[b] Note that a single facility may be associated with multiple environmental permits; as such, the total number reflects the number of permits and releases within the specified distance from the Project.

Notes
Waste (Active and Inactive RCRA Facilities that handle or generate hazardous wastes)
Toxics (TRI Regulated facilities that handle and release toxic substances to the environment)
Land (Site cleanup under Superfund, RCRA, or Brownfield programs, and/or DEQ VRP or PREP sites)
Air (EPA and DEQ regulated facilities with a release of pollutants to the air)
Water (EPA and DEQ regulated facilities that discharge or process water to surface water)
Solid Waste Facilities (Former and existing landfills)
Petroleum Facilities (Regulated petroleum storage facilities)
Petroleum Releases (Typically associated with storage tank releases)

To evaluate potential impact to the route, Dewberry further assessed sites within 1,000 feet of the Proposed Route, inclusive of the proposed Edsall Substation location (Table F-2). Additional information on these sites is summarized below.

TABLE F-2
230 kV Edsall Lines and Substation Project

Environmental Regulated Facilities and Hazardous Waste / Petroleum Release Sites within 1,000 feet of the Edsall Lines Proposed Route

Database	Edsall Lines Proposed Route[a]
Waste	10
Toxics	0
Land	7
Air	4
Water	3
Solid Waste Facilities	1
Petroleum Facilities	6
Petroleum Releases	7
Total [b]	38

[a] The Edsall Substation location is included in the Proposed Route analysis.
[b] Note that a single facility may be associated with multiple environmental permits; as such, the total number reflects the number of permits and releases within the specified distance from the Project.

Notes
Waste (Active and Inactive RCRA Facilities that handle or generate hazardous wastes)
Toxics (TRI Regulated facilities that handle and release toxic substances to the environment)
Land (Site cleanup under Superfund, RCRA or Brownfield programs, and/or DEQ VRP or PREP sites)
Air (EPA and DEQ regulated facilities with a release of pollutants to the air)
Water (EPA and DEQ regulated facilities that discharge or process water to surface water)
Solid Waste Facilities (Former and existing landfills)
Petroleum Facilities (Regulated petroleum storage facilities)
Petroleum Releases (Typically associated with storage tank releases)

EPA Regulated Sites

Based on the EPA's "EnviroAtlas Interactive Map" database, no Brownfield or Superfund sites are located within 1.0 mile of the Proposed Route. The Proposed Route is located within 1.0 mile of 55 active and 39 inactive RCRA facilities. Three of the inactive RCRA facilities are located within 200 feet of the Proposed Route, inclusive of the proposed Edsall Substation location.

DEQ Regulated Sites

Dewberry reviewed DEQ Petroleum Release, VRP, and PREP databases to identify sites within 1,000 feet of the Proposed Route. There are 18 VRP sites, 7 petroleum release sites, and 7 PREP sites located within 1,000 feet of the Proposed Route, inclusive of the proposed Edsall Substation location. Based on available DEQ case files, one petroleum release case and one PREP site are located within 200 feet of the Proposed Route. Each of these is further discussed below.

EPA and DEQ Regulated Sites Within 200 Feet of the Proposed Route

Of the regulated facilities and hazardous waste / petroleum release sites identified within 1,000 feet of the Project, six are located within 200 feet as shown in Table F-3. Available site information was acquired from EPA and DEQ databases, which is summarized below.

TABLE F-3
230 kV Edsall Lines and Substation Project
Environmental Regulated Facilities and Hazardous Waste / Petroleum Release Sites within 200 feet of Edsall Lines Proposed Route [a]

Site Name	Site Type	Regulatory Authority	Distance from Route (feet)	Gradient from Project (up/down/side)	Agency Status
Ryder Dedicated Logistics Facility (ID: 3001404)	Petroleum Tank	DEQ	100	Side/downgradient	Inactive (2007)
Delmar SYS Inc (ID:110008188834)	RCRA Facility	EPA	100	Side/downgradient	Inactive (2015)
Ryder Truck Rental – Farrington Avenue (PC Number 19891618)	Petroleum Release	DEQ	100	Side/downgradient	Closed (2006)
Defense Intelligence Agency (ID:110006365361)	RCRA Facility	EPA	200	Upgradient	Inactive (2010)
Plaza 500 – (ID:110042428548)	RCRA Facility	EPA	200	Side gradient	Inactive (2022)
Sanitary Sewer Overflow – Unpermitted – Virginia Department of Transportation ("VDOT") Facility (ID: 312600)	PReP Record	DEQ	200	Upgradient	Closed (2024)

[a] The Edsall Substation location is included in the Edsall Lines Proposed Route analysis.
"Inactive" refers to the status of the regulated activity at the identified facility; *i.e.*, an inactive status indicates the regulated waste-generating activity is not currently occurring at the facility.
"Closed" refers to a facility that no longer exists and/or has been decommissioned, or a pollutant release record that has been resolved or mitigated satisfactorily according to the enforcing agency.

1) Registered Petroleum Tank - Ryder Dedicated Logistics Facility of Alexandria (ID: 3001404)

According to DEQ, the Ryder Dedicated Logistics Facility underground petroleum tank is located at 6100 Farrington Avenue in Alexandria, Virginia, which is approximately 50 feet north of the Proposed Route adjacent to Farrington Avenue in front of what is currently the K&W Tire Shop. Based on a review of DEQ's Environmental Data Mapper database, Fairfax County's

Jade Online Mapper, and the location of nearby surface water bodies, the site would be hydraulically side or downgradient from the Proposed Route. One reported release/spill from the tank was reported and is discussed below.

The facility handles trucking transportation, specifically for the company Ryder Dedicated Logistics. The DEQ designated the facility inactive on June 29, 2007.

Due to the reported closure of the associated petroleum release and time elapsed since the tank has been listed as inactive, it is unlikely that impacted soils remain a potential contamination source for the soils and/or groundwater in the immediate area of the Proposed Route, inclusive of the proposed Edsall Substation location. However, if previously unidentified contamination is observed during Project construction, the Company will follow proper safety and reporting procedures, as discussed below.

2) RCRA Facility - Delmar SYS Inc. (Registry ID: 110008188834)

According to EPA records, the Delmar SYS Inc. RCRA Facility is approximately 100 feet east from the Proposed Route adjacent to Farrington Avenue. The site is located at 6015 Farrington Avenue in Alexandria, Virginia. Based on a review of EPA's EnviroAtlas and Facility Registry Service ("FRS") databases, Fairfax County's Jade Online Mapper, and the location of nearby surface water bodies, the site would be hydraulically side or downgradient from the Proposed Route. According to EPA records, the site was registered in 2007. No violations have been reported for this facility.

The EPA designated the site as inactive on May 28, 2015. Due to the lack of reported contamination events and time elapsed since the site was designated inactive, it is unlikely that the site impacted soil and/or groundwater in the immediate area of the Proposed Route, inclusive of the proposed Edsall Substation location. However, if previously unidentified contamination is observed during Project construction, the Company will follow proper safety and reporting procedures, as discussed below.

3) Petroleum Release - Ryder Truck Rental (PC: 19891618)

According to DEQ, the Ryder Truck Rental petroleum release site, located at 6100 Farrington Avenue, is located approximately 100 feet from the Proposed Route just west of the Ryder Dedicated Logistics Facility's petroleum tank discussed above. Based on a review of DEQ's Environmental Data Mapper database, Fairfax County's Jade Online Mapper, and the location of nearby surface water bodies, the site would be hydraulically side or downgradient to the Proposed Route.

The site was closed by the DEQ in 2006. Due to the time elapsed since the original event and the record closure, it is unlikely that impacted soils remain a potential contamination source for the soils and/or groundwater in the

immediate area of the Proposed Route, inclusive of the proposed Edsall Substation location. However, if previously unidentified contamination is observed during Project construction, the Company will follow proper safety and reporting procedures, as discussed below.

4) RCRA Facility – Defense Intelligence Agency (Registry ID: 110006365361)

According to the EPA, the Defense Intelligence Agency RCRA Facility is located approximately 200 feet north from the Proposed Route adjacent to Edsall Road. The site is located at 6295 Edsall Road in Alexandria, Virginia. Based on a review of EPA's EnviroAtlas and FRS databases, Fairfax County's Jade Online Mapper, and the location of nearby surface water bodies, the site would be hydraulically upgradient from the Proposed Route. According to EPA records, the site was registered in February 2010. No violations have been reported for this facility.

The EPA designated the site as inactive on August 10, 2010. Due to the lack of reported contamination events and time elapsed since the site was designated inactive, it is unlikely that the site impacted soil and/or groundwater in the immediate area of the Proposed Route, inclusive of the proposed Edsall Substation location. However, if previously unidentified contamination is observed during Project construction, the Company will follow proper safety and reporting procedures, as discussed below.

5) RCRA Facility – Plaza 500 (Registry ID: 110042428548)

According to the EPA, the Plaza 500 RCRA Facility is approximately 200 feet north from the Proposed Route adjacent to Edsall Road. The site is located at 6295 Edsall Road, Unit 140, in Alexandria, Virginia. Based on a review of EPA's EnviroAtlas and FRS databases, Fairfax County's Jade Online Mapper, and the location of nearby surface water bodies, the site would be hydraulically side gradient from the Proposed Route. According to EPA records, the site was registered in 2022.

The EPA designated the site as inactive on January 13, 2022. Due to a lack of contamination reports and time elapsed since the site was designated inactive, it is unlikely that the site impacted soil and/or groundwater in the immediate area of the Proposed Route, inclusive of the proposed Edsall Substation location. However, if previously unidentified contamination is observed during Project construction, the Company will follow proper safety and reporting procedures, as discussed below.

6) PREP Site – Sanitary Sewer Overflow ("SSO") – Unpermitted – VDOT Facility (ID: 312600)

According to DEQ, the SSO PREP site is located approximately 200 feet south of the Proposed Route along Farrington Avenue. Based on a review of DEQ's

Environmental Data Mapper database, Fairfax County's Jade Online Mapper, and the location of nearby surface water bodies, the site would be hydraulically down-gradient to the Proposed Route.

According to the DEQ record, the sewage release was reported on February 6, 2024. The initial amount of sewage release to the soil was estimated at 500 gallons. Released sewage did not reach storm drains or surface waters. The blockage within the pipe was removed and HEPACO completed the cleanup and submitted a report.

The site was reported closed by DEQ on March 19, 2024. Due to the completion of appropriate compliance actions, the distance between the site and the Proposed Route, and the fact that the spill was contained before reaching any storm drain or waterbody, it is unlikely that impacted soils remain a potential contamination source for the soils and/or groundwater in the immediate area of the Proposed Route, inclusive of the proposed Edsall Substation location. However, if previously unidentified contamination is observed during Project construction, the Company will follow proper safety and reporting procedures, as discussed below.

Regulated Site Summary

In summary, the RCRA facilities identified adjacent to the Proposed Route are listed as inactive and have no recorded violations. It is not anticipated that these facilities present a concern to the proposed Project. The recorded sanitary sewer overflow near to the Proposed Route occurred recently but was also listed as closed by DEQ. In addition, sewage spills do not typically result in long-term contamination of sediments. This incident is not anticipated to present a concern to the proposed Project.

Lastly, all of the Petroleum Release cases within close proximity to the Project have been closed by the DEQ. The DEQ deems a petroleum release 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 Project is constructing overhead lines, minor subsurface work is required during installation. 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 associated regulatory agency will be coordinated with and the soils disposed of in accordance with applicable regulations.

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. This is 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, Dewberry conducted online database searches for threatened and endangered species in the vicinity of the Project, including the Department of Conservation and Recreation ("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. Dewberry also obtained query results from the USFWS Information for Planning and Consultation ("IPaC") System, the Virginia Department of Wildlife Resources ("DWR") Virginia Fish and Wildlife Information Service ("VaFWIS"), and the Center for Conservation Biology ("CCB") Bald Eagle Nest Locator. Results of these queries are provided in Attachment 2.G.1.

Database queries of the above referenced sources identified multiple federal- and state-listed threatened and endangered species within and adjacent to the study area (Table G-1).

Table G-1. Threatened and endangered species potentially within the Project vicinity

Species	Status	Database	Habitat	Results
Northern long-eared bat (*Myotis septentrionalis*)	FE, ST	USFWS-IPaC, DWR- NLEB Winter Habitat and Roost Tree Mapper	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.	Identified in the IPaC review as potentially occurring in a 1.0-mile search radius around the Proposed Route. No known hibernacula or maternity roost trees have been identified within a 2.0-mile radius of the Proposed Route.
Tricolored bat *(Perimyotis subflavus)*	FPE, SE	USFWS-IPaC, DWR- VaFWIS	Typically roost in trees near forest edges during summer. Hibernate deep in caves or mines in areas with warm, stable temperatures during winter.	DWR lists a confirmed observation within a 2.0-mile search radius around the Proposed Route. No known hibernacula or maternity roost trees have been identified within a 1.0-mile radius of the Proposed Route.

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

Northern long-eared bat

The Northern long-eared bat ("NLEB") (*Myotis septentrionalis*) is federally listed as endangered, state listed as threatened, and has been identified by USFWS as potentially occurring within the Project area. However, DWR records indicate

that no known hibernacula or maternity roost trees occur within a 2-mile radius of the Proposed Route. While construction of the Project requires 3.9 acres of trees to be removed, the Company does not anticipate adverse impacts to the NLEB.

Tricolored bat

The Tricolored bat ("TCB") (*Perimyotis subflavus*) is federally listed as proposed endangered and stated listed as endangered. The USFWS and DCR databases indicated the potential presence of the TCB within the Project area, and a recorded observation in the study area, dated from July 2016. The TCB prefers forested habitats where it can roost in trees or caves. DWR documented the observation of a TCB approximately 2.0 miles northwest of the Project area in the Indian Run corridor. While construction of the Project requires 3.9 acres of trees to be removed, the Company does not anticipate adverse impacts to the TCB.

On behalf of the Company, Dewberry electronically submitted the Project to the DCR's Division of Natural Heritage ("DNH") for review. The DCR completed its automated review on April 2, 2024, as discussed in detail below (see Attachment 2.G.1).

DCR indicated that no Conservation Sites are present within the study area.

There are no SCUs located within the study area.

According to the automated review, DCR-DNH records indicate that the Project will not affect any documented state-listed plants or insects and does not cross any State Natural Area Preserves under DCR's jurisdiction. See Attachment 2.G.1.

Diabase Glades

DCR-DNH's database does not identify any diabase formations within 3.0 miles of the Proposed Route, inclusive of the proposed Edsall Substation location.

Ecological Cores

The DCR defines areas of 100 acres or greater of contiguous natural land cover associated with areas of high ecological value as ecological cores, which provide refuge for thousands of species of animals and plants, in addition to a variety of recreational opportunities and open space resources for the public. Because the quality of ecological cores varies across different landscapes, the DCR evaluates ecological cores using an Ecological Integrity Score that ranks the relative contribution of different ecosystem services, from C5 (General) to C1 (Outstanding). A review of DCR-DNH's database did not identify any ecological cores within 1.0 mile of the Proposed Route, inclusive of the proposed Edsall Substation location.

To obtain the most current eagle nest data, Dewberry reviewed the 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 Proposed Route, inclusive of the proposed Edsall Substation location, does not intersect any Primary or Secondary Buffers of currently documented Bald eagle nests as identified in the Bald Eagle Protection Guidelines for Virginia (2012). According to the CCB database, the closest recorded bald eagle nest was located within the southern portion of the study area along the Backlick Run corridor. The nest lies greater than 660 feet from the Proposed Route; therefore, no impacts to bald eagles are anticipated.

A copy of the database search results can be found in Attachment 2.G.1. Construction and maintenance of the new transmission line facilities could have minor impacts on wildlife; however, impacts on most species will be short-term in nature and limited to the period of construction. The Company will work with the appropriate jurisdictional agencies to minimize impacts on resources, as appropriate and indicated above, during implementation of the Project.

Impacts to bat habitat will be minimized through coordination with appropriate jurisdictional agencies and consideration of time of year restrictions ("TOYRs"), as discussed in Section 2.K, Wildlife Resources. No instream work is anticipated to be required for the transmission structures and construction access is expected to span streams using crane mats or bridges. As described in Section 2.B, waterbodies will be maintained for proper drainage using culverts or other crossing devices. Additionally, since additional right-of-way clearing will be required for the proposed transmission line operation, erosion and sediment control measures will be implemented, as discussed below in Section 2.H. The Project will avoid and minimize impacts when possible. Once constructed, only maintenance and temporary construction activities will occur in terrestrial habitats.

New and updated information is continually added to DCR's Biotics database. The Company shall re-submit 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.[2]

The Company requested comments from USFWS, DWR, and DCR-DNH about the Project on April 9, 2024. Because the Company will obtain all necessary permits prior to construction, such as authorization from the Corps, coordination

[2] The Company updated this commitment consistent with discussions held between the Company and DCR representatives on August 23, 2022.

with the USFWS, DWR, and DCR will take place through the respective permit processes to avoid and minimize impacts to listed species.

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.

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

Dewberry conducted a Stage I Pre-Application Analysis ("Stage I Analysis") of potential impacts on cultural resources for the Edsall Lines 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) (VDHR 2008). A copy of the Stage I Analysis, which was provided to VDHR on July 25, 2024, 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-mile radius of each route centerline.
- National Register of Historic Places ("NRHP")-listed properties, NHLs, battlefields, and historic landscapes within a 1.0-mile radius of each route centerline.
- NRHP-eligible and -listed properties, NHLs, battlefields, and historic landscapes within a 0.5-mile radius of each route centerline.
- Qualifying architectural resources and archaeological sites located within the right-of-way for each route.
- Information on cultural resources within each of these study tiers was obtained from the Virginia Cultural Resources Information System ("VCRIS").

In addition to the VCRIS, Dewberry collected information on battlefields surveyed and assessed by the National Park Service's American Battlefield Protection Program ("ABPP") (NPS 2023). No additional ABPP study areas, core

areas, or potential NRHP boundaries for battlefields were identified within the relevant study tiers for the Proposed Route through this source.

Along with a records review carried out for the four tiers as defined by VDHR, Dewberry also conducted field assessments of one considered aboveground resource for the Proposed Route in accordance with the VDHR Guidelines. Digital photographs of the resource and views of the proposed transmission line were taken. Photo simulations were prepared to assess potential viewshed impacts from construction of the proposed transmission line for the considered resource in the vicinity of the Proposed Route.

A summary of the considered resources identified in the vicinity of the Proposed Route, inclusive of the proposed Edsall Substation location, and recommendations concerning the Project effects are provided in the following discussion. The information presented here derives from existing records and does not purport to encompass the entire suite of historic and archaeological resources that may ultimately be affected by the undertaking.

Architectural Resources

Resources located within the right-of-way of the Edsall Lines Proposed Route may be subject to both direct impacts from placement of the transmission line across the property as well as visual impacts from changes to the viewshed introduced by the new transmission infrastructure. Resources in the 0-0.5-mile study tier would not be directly impacted but would likely be visually impacted unless topography or vegetation obscures the view from the resource to the transmission line. At a distance over 0.5 mile, it becomes less likely that a resource would be within line-of-sight of the new transmission facilities. Beyond 1.0 mile, it becomes even less likely that a given resource would be within line-of-sight of the Project. However, a full architectural survey (anticipated to be completed following the selection of a route) is necessary to determine which resources would be visually impacted and to survey for additional unrecorded resources.

The nature of the impacts on cultural resources from construction and operation of the Project, while estimated in this study with the assistance of photo simulations, will depend on the final Project design in which the exact placement and height of transmission line structures is confirmed. As part of an anticipated future full architectural survey, Project impacts on existing and any newly identified resources would be assessed. The study area for the survey would be defined based on the height of the transmission line structures, topography, tree cover, and other factors impacting line-of-sight from resources to the route.

<u>Proposed Route</u>

A review of the VDHR VCRIS inventory records revealed a total of 105 previously recorded architectural resources within 1.5 miles of the Proposed

Route (VDHR 2024). There are no NHLs within 1.5 miles of the Proposed Route and no NRHP-listed resources, battlefields, or historic landscapes within 1.0 mile of the Proposed Route. The review identified one resource determined eligible for listing in the NRHP within 0.5 mile of the Proposed Route: the Richmond, Fredericksburg, and Potomac Railroad Historic District (DHR ID 500-0001) ("RF&PHD"). Therefore, the only resource considered for this analysis was the RF&PHD.

The RF&PHD is crossed by the Proposed Route in the same location that the Proposed Route crosses the Richmond, Fredericksburg, and Potomac railroad tracks and VPRA parcels, as the three resources overlap. This crossing is located at the western boundary of the Farrington Avenue industrial parcels. The RF&PHD consists of a linear, double-tracked railroad bed stretching from Long Branch Bridge over the Potomac River in Arlington County to its southern terminus at Broad Street Station in the City of Richmond, Virginia. The district also includes contributing structures along its length, such as stations, towers, bridges, culverts, rail yards, branches, and spurs. The RF&PHD is historically significant for its association with the historic Richmond, Fredericksburg, and Potomac Railroad, a regional "bridge" railroad that linked larger railroads to the north and south, such as the Pennsylvania Railroad, Baltimore & Ohio Railroad, Atlantic Coast Line Railroad, and Seaboard Air Line Railroad.

Field inspection confirmed that the new transmission lines for the Proposed Route would be visible from and cross over the RF&PHD. The Proposed Route will introduce new visual elements to the historic district viewshed, such as visible towers north and/or south of the historic district and transmission lines above the tracks within the district. At present, existing distribution power lines cross the RF&PHD at two places within sight of the Proposed Route crossing. Several other distribution power lines parallel the RF&PHD; both distribution power lines and distribution poles are visible from the historic district. In addition, the surrounding industrial landscape largely post-dates the RF&PHD period of significance; elements such as the VDOT road maintenance property, WMATA electrified metro-tracks, and industrial warehouses are visible from the RF&PHD. Also, the Capital Beltway crosses the RF&PHD approximately 1,600 feet southwest of the Proposed Route crossing. It is expected that the Project's construction and operation will have minimal impact on the viewshed of the RF&PHD because there are already power lines crossing or parallel to the RF&PHD and the surrounding viewshed is an industrial landscape that was built after the historical period of significance. Therefore, the Project will be consistent with the current character of the area and have minimal impact on the viewshed of the RF&PHD. See Attachment 2.I.1 for further details.

Table I-1 NRHP listed and eligible resources within 1.5-miles of the Project

Buffer (miles)	Considered Resources	DHR ID	Description
1.5	National Historic Landmarks	None	None

1.0	National Historic Landmarks	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Listed	None	None
0.5	National Historic Landmarks	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Listed	None	None
	National Register Eligible	500-0001	Richmond, Fredericksburg, and Potomac Railroad Historic District
	VLR-Listed	None	None

Archaeological Resources

The Stage I Analysis also considered the potential effects to archaeological resources. A total of 22 previously recorded archaeological sites have been identified within 1.0 mile of the Proposed Route (Attachment 2.I.1). None of these sites are located within the right-of-way, or within 50 feet of the Proposed Route. As such, no archaeological sites were considered in the analysis.

J. Chesapeake Bay Preservation Areas

Fairfax County is a locality subject to the Chesapeake Bay Preservation Act ("CBPA"), which regulates the 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 or value of RPAs. As such, RPAs are located around perennial waterbodies and associated wetland areas along the Proposed Route, including Backlick Run and its associated wetlands.

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. In addition, the Company will use Best Management Practices to limit impacts to RPAs to the minimum extent possible while safely and effectively constructing and maintaining its infrastructure.

The Company solicited comments from the DEQ Office of Watersheds and Local Government Assistance ("DEQ-OWLGA") on April 9, 2024. Dominion Energy

Virginia received a response from DEQ-OWLGA on April 19, 2024, which is included as Attachment 2.J.1.

K. Wildlife Resources

Relevant agency databases were reviewed and requests for comments from the USFWS, DWR, and DCR were submitted to determine if the Project has the potential to affect any threatened or endangered species. As discussed in Section 2.G and identified in Attachment 2.G.1, certain federal- and state-listed species were identified as potentially occurring in the Project area. The Company will coordinate with the USFWS, DWR, and DCR as appropriate to determine whether additional surveys are necessary and to minimize impacts on wildlife resources.

The Company is monitoring actively regulatory changes and requirements associated with the NLEB and how they could potentially impact construction timing associated with TOYRs. The USFWS previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is tracking actively updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company's projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the TCB. On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is tracking actively this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

L. Recreation, Agricultural and Forest Resources

The Project is expected to have minimal permanent impacts on forest resources as only forest fragments and thin corridors exist within the proposed right-of-way. The Project is not expected to have permanent impacts on recreational or agricultural resources. The general character of the Project area is predominantly industrial and commercial use, surrounded by suburban residential communities with intermixed parkland. Opportunities for collocation with other rights-of-way were considered where possible as a means of avoiding or minimizing impacts on these resources. Based on a review of recent (2023) aerial photography and various databases, no agricultural lands are crossed by the Proposed Route. Where forested areas are crossed, trees would be removed, and vegetation kept to

maintained heights within the right-of-way. It is estimated the Proposed Route will require the clearing of approximately 3.9 acres of trees.

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 Fairfax County's Jade County Online Mapper and the Department of Forestry database, no Virginia Agricultural and Forestal Districts are crossed by the Proposed Route.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. Land that does not meet the criteria for prime farmland can be considered to be "farmland of statewide importance." The criteria for defining and delineating farmland of statewide importance are determined by the Virginia Department of Agriculture and Consumer Services. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Additionally, certain areas are considered prime farmland when the soils are managed through practices such as drainage or irrigation. Other areas that are not identified as having national or statewide importance can be considered to be "farmland of local importance." This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinances. No prime farmland, farmland of statewide importance, or farmland of local importance is located within the Project right-of-way and, therefore, are not expected to be impacted by 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 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 must be held for no less than five years in duration and can be held in perpetuity. No easements of this type are crossed by the Proposed Route. The nearest conservation easement is approximately 300 feet west of the Proposed Route near Turkeycock Run. The Project would not impact resources within the easement or their preservation in perpetuity.

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. There are no scenic rivers within the proposed Project right-of-way, nor within 1.0 mile of the Proposed Route of the Edsall Lines.

The Project does not overlap, nor is it in close proximity to, any scenic byways.

The Edsall Lines Proposed Route does not overlap with any Fairfax County Park Authority-owned properties. However, there are four Fairfax County Park Authority-owned properties within a 1.0-mile radius of the proposed Project: Backlick Run Stream Valley Park, Backlick Run Park, Bren Mar Park, and Franconia Park. No permanent impacts are anticipated for these Fairfax County Park Authority-owned properties.

Table L-1 Parks within 1.0-mile of the Project

Park Name	Management Agency	Distance to Centerline (Miles)
Backlick Run Park	Fairfax County Park Authority	0.3
Backlick Run Stream Valley Park	Fairfax County Park Authority	0.3
Bren Mar Park	Fairfax County Park Authority	0.3
Franconia Park	Fairfax County Park Authority	1.0

The entire width of the proposed transmission right-of-way is mixed-use and clearing of new right-of-way is anticipated. Trees and brush located within 100 feet of streams will be cleared by hand in accordance with the Company-approved erosion and sediment control measures. 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 towards 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 field inspect the right-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. The Project is expected to minimize impacts on forest resources by siting the proposed transmission line within previously developed parcels.

On April 9, 2024, the Company solicited DCR, VOF, and the Virginia Department of Forestry ("VDOF") for comments on the Project.

Dominion Energy Virginia received a response from VOF on April 10, 2024, indicating that the Project will not encroach on any existing or proposed VOF open-space easements. See Attachment 2.L.1 for a copy of the response.

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 rights-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 the right-of-way by establishing early successional plant communities of

native grasses, forbs, and low-growing woody vegetation. "Selective" application means the Company sprays only the 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 nozzle-radiarc, 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 DNH on an addendum to the IVMP to further explain how the Company's operations and maintenance forestry program addresses invasive species. 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 to further discuss the documentation provided. Once the addendum is finalized, the Company will report on the results of its communications with DCR in future transmission certificate of public convenience and necessity filings.

N. Geology and Mineral Resources

Dewberry used the Virginia Energy Geology Mineral Resources mapper to identify mineral resources within the Project area. The proposed Project is located in the Bren Mar Park, Virginia area, which falls mostly within the Coastal Plain geologic province. The study area overlaps with the Potomac Formation map unit, which is composed primarily of sand-based rocks and clay or mud dating to the Cretaceous period, and the Occoquan granite map unit, which consists primarily of granite stones dating to the Cambrian-Ordovician periods.

DCR's website was used to screen for karst terrain. Karst is a landscape developed in limestone, dolomite, marble, or other soluble rocks and characterized by subsurface drainage, sinking, or losing streams, sinkholes, springs, and caves. Karst was not found within a 3-mile radius of the Proposed Route, inclusive of the proposed Edsall Substation location.

Dewberry reviewed the Fairfax County Jade Online County Mapper to identify unique soils and geologic formations specific to the County. Within the study

area, there are previously identified marine clay soils, including Marumsco soils, which overlap with the area around the Van Dorn Substation as well as the Bren Mar Park development. Marine clay soils contain clays that swell upon wetting and shrink upon drying. Potential problems associated with these soils include land slippage and slope instability, shrinking and swelling of clays, poor foundation support, and poor drainage.

The Fairfax County Jade Online County Mapper and Google Earth were used to identify active mines and quarries within the study area and the surrounding communities. There are no quarries used for mineral resource extraction within a 9-mile radius of the Proposed Route, inclusive of the proposed Edsall Substation location. The closest mineral extraction facilities include two Vulcan Materials Company facilities: a materials storage facility approximately 1.1 miles northwest of the study area and a quarry pit approximately 9.1 miles southwest of the study area. No additional facilities were identified within 10.0 miles of the Project area. Additionally, there are no opportunities for mineral extraction within the study area considering the highly developed nature of the Project area.

O. Transportation Infrastructure

Road and Railroad Crossings

The Proposed Route crosses Farrington Avenue, a privately maintained road. No other roads, including VDOT roads, are crossed by the Proposed Route. On April 9, 2024, the Company solicited comments from VDOT on the proposed Project.

The Proposed Route crosses three railways:

- The WMATA Metro Blue Line
- Virginia Railway Express Manassas Line
- Norfolk Southern Railway

The Company anticipates that the proposed Project will not affect railroad facilities or conflict with their operation. The Company will communicate with all rail lines listed above prior to the permitting phase of the Project. All permits will be obtained prior to construction.

Airports

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

Dewberry reviewed the Federal Aviation Administration's ("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 ("nm") of the Proposed Route. Based on this review, two FAA-restricted airports are located within 10.0 nm of the Project:

- Ronald Reagan Washington National Airport, approximately 6.1 nm northeast of the proposed Project area.
- Davison Army Airfield, approximately 5.6 nm southwest of the proposed Project area.

Two helipads are located within 10.0 nm of the proposed Project. The Company will work with these entities as appropriate.

- Pentagon AHP, approximately 6.7 nm northeast of the proposed Project area.
- South Capitol Street, approximately 7.8 nm northeast of the proposed Project area.

There are no private airports within 10.0 nm of the proposed Project area.

On April 9, 2024, the Company solicited comments from the Virginia Department of Aviation (the "DOAv") on the proposed Project. DOAv responded on April 11, 2024, indicating that DOAv "has no objection to the project as it has been presented" and noting that a 7640 will be required to be submitted to the FAA if any portion of the project, including temporary cranes needed during construction reaches a height of 200 feet above ground level. This response is included as Attachment 2.O.1.

P. Drinking Water Wells

The Company solicited comments from the Virginia Department of Health ("VDH"), Office of Drinking Water ("ODW") regarding the proposed Project.

As a general matter, water wells within 1,000 feet of the Project may be outside of the transmission line corridor and located on private property. The Company does not have the ability or right to field mark wells on private property. In June 2021, the Company contacted VDH-ODW to propose a method of well protection, including plotting and calling out the wells on the Partial 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 Attachment 2.P.1. The Company intends to follow this same approach in this proceeding, as it has in other cases, and will coordinate with VDH-ODW, as needed.

Q. Pollution Prevention

Generally as to pollution prevention, 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. Accordingly, any recommendation by the DEQ to consider development of an effective environmental management system has already been satisfied.

Attachments

Dominion Energy Services, Inc.
120 Tredegar Street, Richmond, VA 23219
DominionEnergy.com

April 9, 2024

RE: Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation

Dear Ms. Henicheck:

Dominion Energy Virginia (the "Company") is proposing to construct a new 230-34.5 kV substation (the "Edsall Substation") and extend its existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from within the Company's existing Van Dorn Substation to the proposed Edsall Substation (the "Edsall Lines") in Fairfax County, Virginia (collectively, the "Project").

The Project is necessary to ensure that Dominion Energy Virginia can provide service requested by a data center customer (the "Customer") in Fairfax County, Virginia, to maintain reliable service for the overall growth in the load area surrounding the Company's existing Van Dorn Substation, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards.

The Company is preparing an application for a certificate of public convenience and necessity ("CPCN") with the State Corporation Commission of Virginia (the "Commission"). Pursuant to the July 2003 Memorandum Wetlands Impact Consultation, Dominion Energy Virginia is sending this letter to initiate consultation with the Virginia Department of Environmental Quality prior to filing an application for a CPCN from the Commission.

A wetland delineation has not been conducted by the Company at this time. However, Dewberry Engineers, Inc. conducted a wetland desktop study to identify probable wetlands and waterbodies based on a review of multiple data sources. Table 1 below provides a summary of the probability of wetlands and waterbodies expected to be present within the proposed Edsall Lines right-of-way.

Table 1. Summary of the Probabilities of Wetland and Waterbody Occurrence along the Proposed Route for the Edsall Lines

PROBABILITY	TOTAL ACRES WITHIN THE RIGHT-OF-WAY	WETLAND AND WATERBODY TYPE (ACRES)				
		FORESTED WETLAND (PFO)	SCRUB/ SHRUB WETLAND (PSS)	EMERGENT WETLAND (PEM)	OPEN WATER WETLAND (POW)	RIVERINE/ STREAMS (R3/R4/R6)
Proposed Route[b]						
High	0.3	N/A	N/A	N/A	N/A	0.2
Medium/High	N/A	N/A	N/A	N/A	N/A	N/A
Medium	0.1	0.1	N/A	N/A	N/A	N/A
Medium/Low	N/A	N/A	N/A	N/A	N/A	N/A
Low	N/A	N/A	N/A	N/A	N/A	N/A
Very Low	N/A	N/A	N/A	N/A	N/A	N/A

N/A Not applicable due to the absence of wetland or waterbody type within the route
a The numbers in this table have been rounded for presentation purposes.
b Edsall Substation wetlands and waterbodies are included within the Edsall Lines proposed right-of-way rather than individually.

The full Wetland Desktop Study will be submitted once finalized. Subsequently, a wetland delineation will be conducted and the limits of wetlands and other waters of the United States will be submitted to the U.S. Army Corps of Engineers for confirmation. In advance of filing an application for a CPCN from the Commission, the Company respectfully requests that you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter.

Enclosed is a Project Overview Map depicting the route of the proposed Edsall Lines, as well as the general Project location. All final materials, including maps, will be available in the Company's application filing to the Commission.

Finally, attached are GIS shapefiles of the transmission line route to assist in the project review. If there are any questions, please do not hesitate to contact Lucas DuPont at (434) 981-0483 or lucas.a.dupont@dominionenergy.com.

We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Sincerely,

Dominion Energy Virginia

Elizabeth "Tibby" L. Hester
Manager, Environmental & Sustainability

Attachments: Project Overview Map
Project GIS Shapefiles

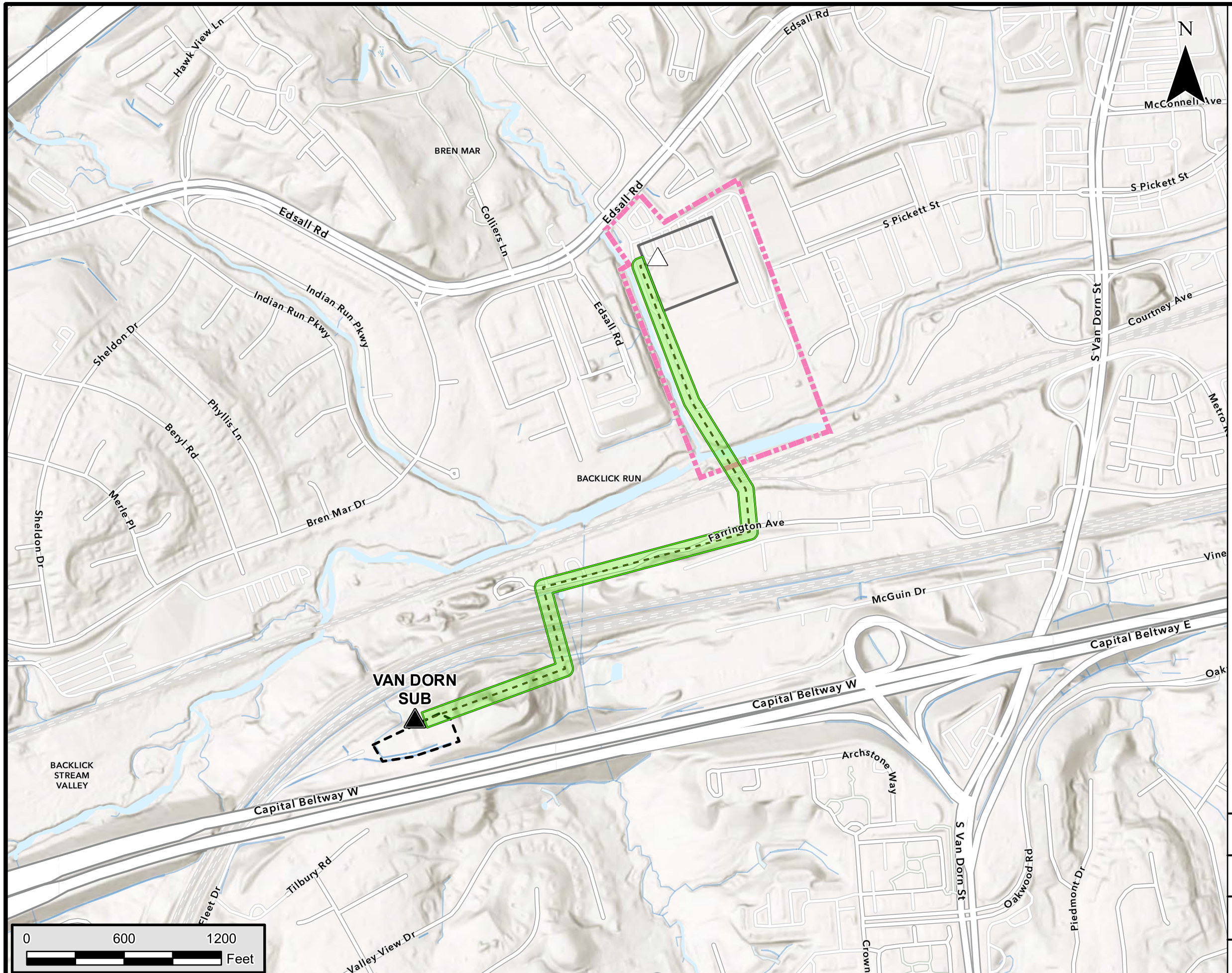


FIGURE NO.

TITLE:

PROJECT OVERVIEW MAP

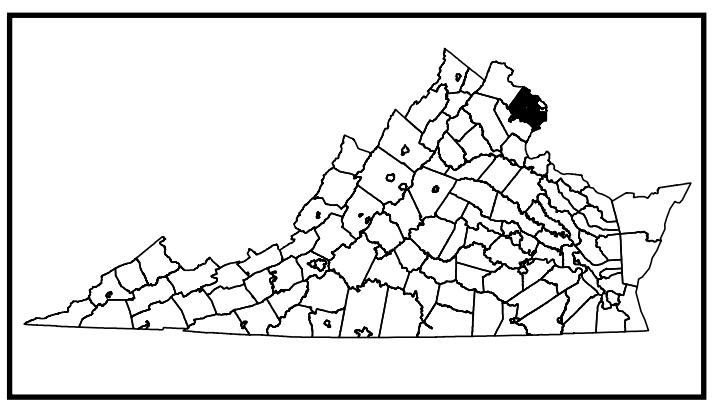
PROJECT:

230 KV LINES #210 AND #243 EXTENSION AND EDSALL SUBSTATION

LEGEND

- PROPOSED EDSALL SUBSTATION
- EXISTING SUBSTATIONS
- EXISTING SUBSTATION BOUNDARY
- PROPOSED SUBSTATION BOUNDARY
- PROPOSED TRANSMISSION LINE ROUTE
- CUSTOMER DATA CENTER CAMPUS

KEY PLAN



PROJECT NUMBER: 50163606	
SCALE: 1"= 600 FEET	DATE: 4/9/2024
PROJECT MANAGER: TL	
DRAWN BY: MH	Dewberry

Dominion Energy Services, Inc.
120 Tredegar Street, Richmond, VA 23219
DominionEnergy.com

April 9, 2024

RE: Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation

To Whom it May Concern:

Dominion Energy Virginia (the "Company") is proposing to construct a new 230-34.5 kV substation (the "Edsall Substation") and extend its existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from within the Company's existing Van Dorn Substation to the proposed Edsall Substation (the "Edsall Lines") in Fairfax County, Virginia (collectively, the "Project").

The Project is necessary to ensure that Dominion Energy Virginia can provide service requested by a data center customer (the "Customer") in Fairfax County, Virginia, to maintain reliable service for the overall growth in the load area surrounding the Company's existing Van Dorn Substation, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards.

The Company is preparing to file an application for a certificate of public convenience and necessity ("CPCN") with the State Corporation Commission of Virginia (the "Commission").I In advance of filing an application for a CPCN from the Commission, the Company respectfully requests that you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter.

Enclosed is a Project Overview Map depicting the route of the Edsall Lines, as well as the general Project location. All final materials, including maps, will be available in the Company's application filing to the Commission.

Finally, attached is a GIS shapefile of the transmission line route to assist in the project review. If you have any questions, please do not hesitate to contact Lucas DuPont at (434) 981-0483 or lucas.a.dupont@dominionenergy.com.

We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Sincerely,

Dominion Energy Virginia

Elizabeth "Tibby" L. Hester
Manager, Environmental & Sustainability

Attachments: Project Overview Map
GIS Shapefiles

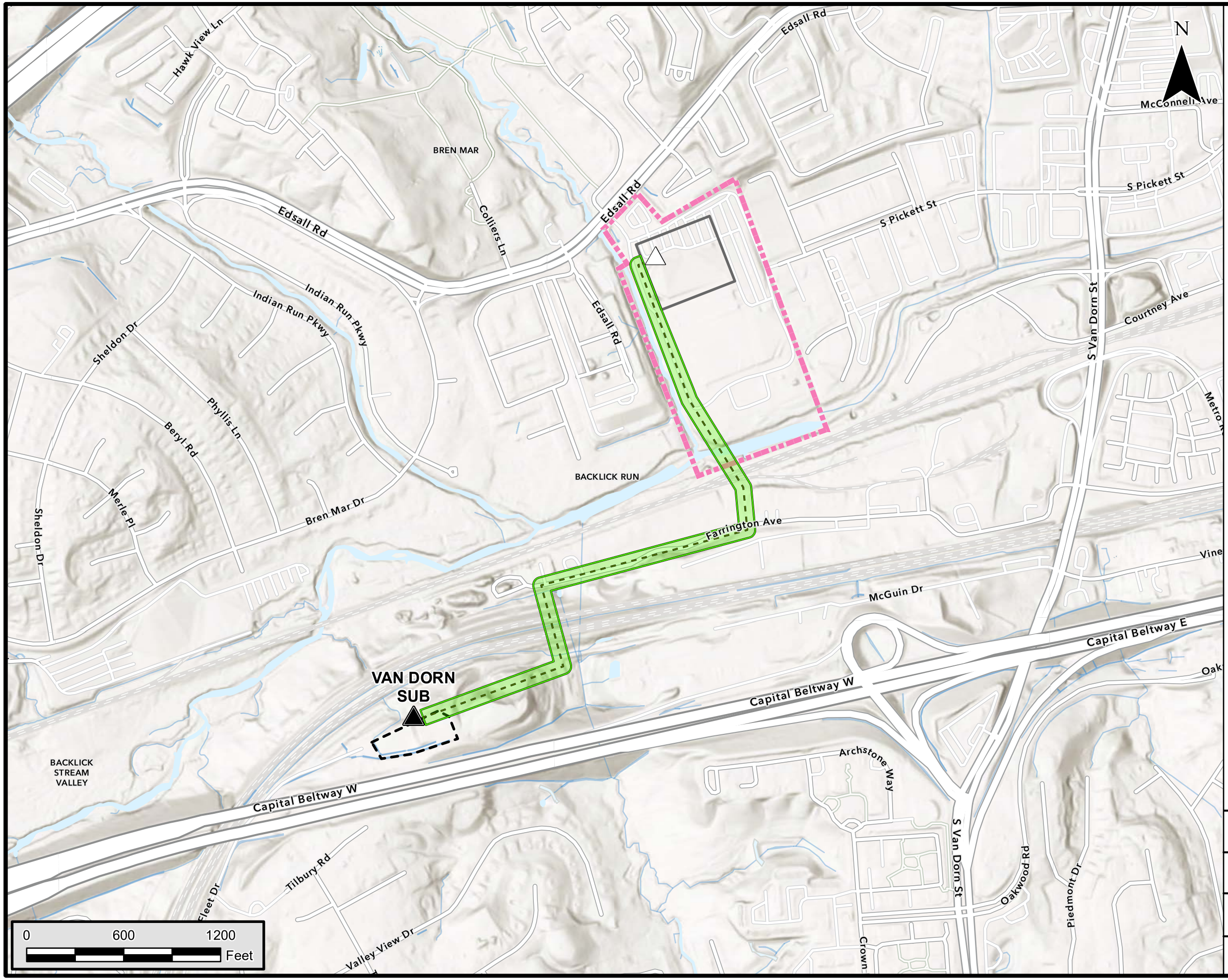


FIGURE NO.

TITLE:

PROJECT OVERVIEW MAP

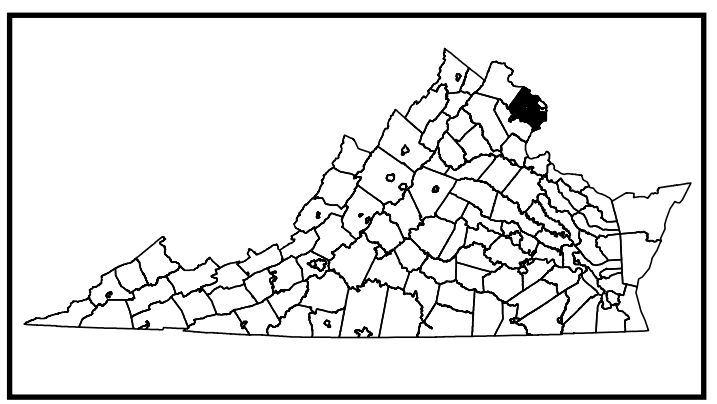
PROJECT:

230 KV LINES #210 AND #243 EXTENSION AND EDSALL SUBSTATION

LEGEND

- PROPOSED EDSALL SUBSTATION
- EXISTING SUBSTATIONS
- EXISTING SUBSTATION BOUNDARY
- PROPOSED SUBSTATION BOUNDARY
- PROPOSED TRANSMISSION LINE ROUTE
- CUSTOMER DATA CENTER CAMPUS

KEY PLAN



PROJECT NUMBER: 50163606	
SCALE: 1"= 600 FEET	DATE: 4/9/2024
PROJECT MANAGER: TL	Dewberry
DRAWN BY: MH	

Dominion Energy Services, Inc.
120 Tredegar Street, Richmond, VA 23219
DominionEnergy.com

April 9, 2024

RE: Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation

To Whom it May Concern:

Dominion Energy Virginia (the "Company") is proposing to construct a new 230-34.5 kV substation (the "Edsall Substation") and extend its existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from within the Company's existing Van Dorn Substation to the proposed Edsall Substation (the "Edsall Lines") in Fairfax County, Virginia (collectively, the "Project").

The Project is necessary to ensure that Dominion Energy Virginia can provide service requested by a data center customer (the "Customer") in Fairfax County, Virginia, to maintain reliable service for the overall growth in the load area surrounding the Company's existing Van Dorn Substation, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards.

The Company is preparing to file an application for a certificate of public convenience and necessity ("CPCN") with the State Corporation Commission of Virginia (the "Commission"). In advance of filing an application for a CPCN from the Commission, the Company respectfully requests that you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter.

Enclosed is a Project Overview Map depicting the route of the proposed Edsall Lines, as well as the general Project location. All final materials, including maps, will be available in the Company's application filing to the Commission.

If you would like to receive a GIS shapefile of the transmission line route to assist in the project review or if there are any questions, please do not hesitate to contact Christa McDonald at (571) 319-2582 or c.mcdonald@dominionenergy.com. We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Sincerely,

Christa McDonald
Siting and Permitting Specialist, Electric Transmission

Attachment: Project Overview Map

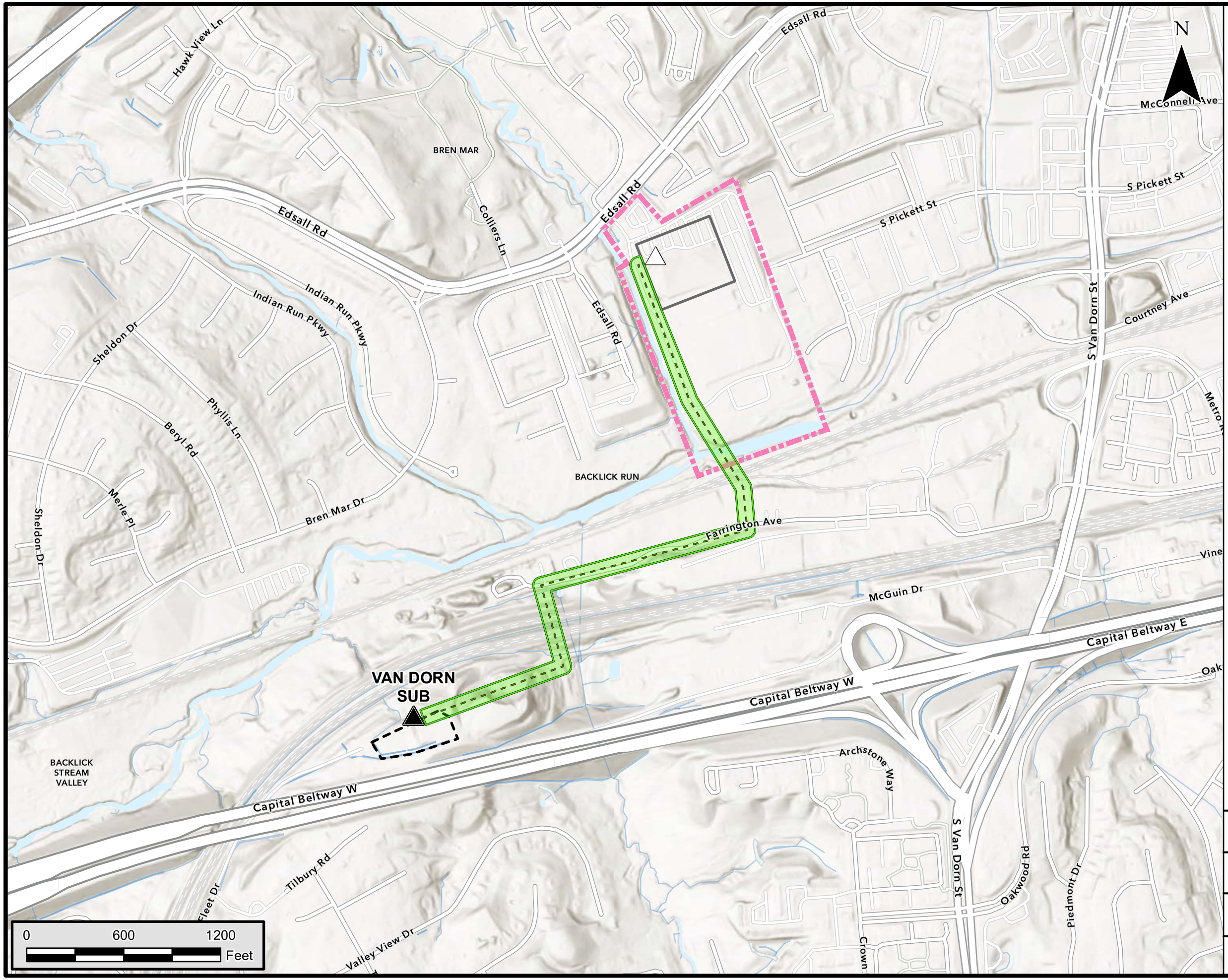


FIGURE NO.

TITLE:

PROJECT OVERVIEW MAP

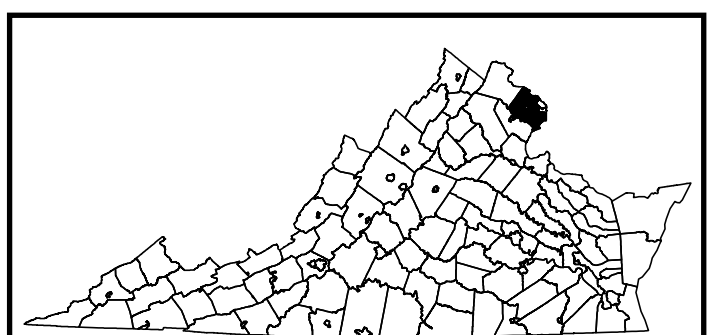
PROJECT:

230 KV LINES #210 AND #243 EXTENSION AND EDSALL SUBSTATION

LEGEND

- PROPOSED EDSALL SUBSTATION
- EXISTING SUBSTATIONS
- EXISTING SUBSTATION BOUNDARY
- PROPOSED SUBSTATION BOUNDARY
- PROPOSED TRANSMISSION LINE ROUTE
- CUSTOMER DATA CENTER CAMPUS

KEY PLAN



PROJECT NUMBER: 50163606	
SCALE: 1"= 600 FEET	DATE: 4/9/2024
PROJECT MANAGER: TL	Dewberry
DRAWN BY: MH	

Dominion Energy Services, Inc.
120 Tredegar Street, Richmond, VA 23219
DominionEnergy.com

Mr. Bryan Hill
Fairfax County Executive
12000 Government Center Parkway
Fairfax, Virginia 22035

April 9, 2024

RE: Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation
Notice Pursuant to Va. Code § 15.2-2202 E

Dear Mr. Hill:

Dominion Energy Virginia (the "Company") is proposing to construct a new 230-34.5 kV substation (the "Edsall Substation") and extend its existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from within the Company's existing Van Dorn Substation to the proposed Edsall Substation (the "Edsall Lines") in Fairfax County, Virginia (collectively, the "Project").

The Project is necessary to ensure that Dominion Energy Virginia can provide service requested by a data center customer (the "Customer") in Fairfax County, Virginia, to maintain reliable service for the overall growth in the load area surrounding the Company's existing Van Dorn Substation, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards.

The Company is preparing to file an application for a certificate of public convenience and necessity ("CPCN") with the State Corporation Commission of Virginia (the "Commission"). In advance of filing an application for a CPCN from the Commission, the Company respectfully requests that you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter.

Enclosed is a Project Overview Map depicting the route of the Edsall Lines, as well as the general Project location. All final materials, including maps, will be available in the Company's application filing to the Commission.

If you would like to receive a GIS shapefile of the transmission line route to assist in the project review or if there are any questions, please do not hesitate to contact Christa McDonald at (571) 319-2582 or C.McDonald@dominionenergy.com. We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Regards,

Christa McDonald
Siting and Permitting Specialist, Electric Transmission

Attachment: Project Overview Map

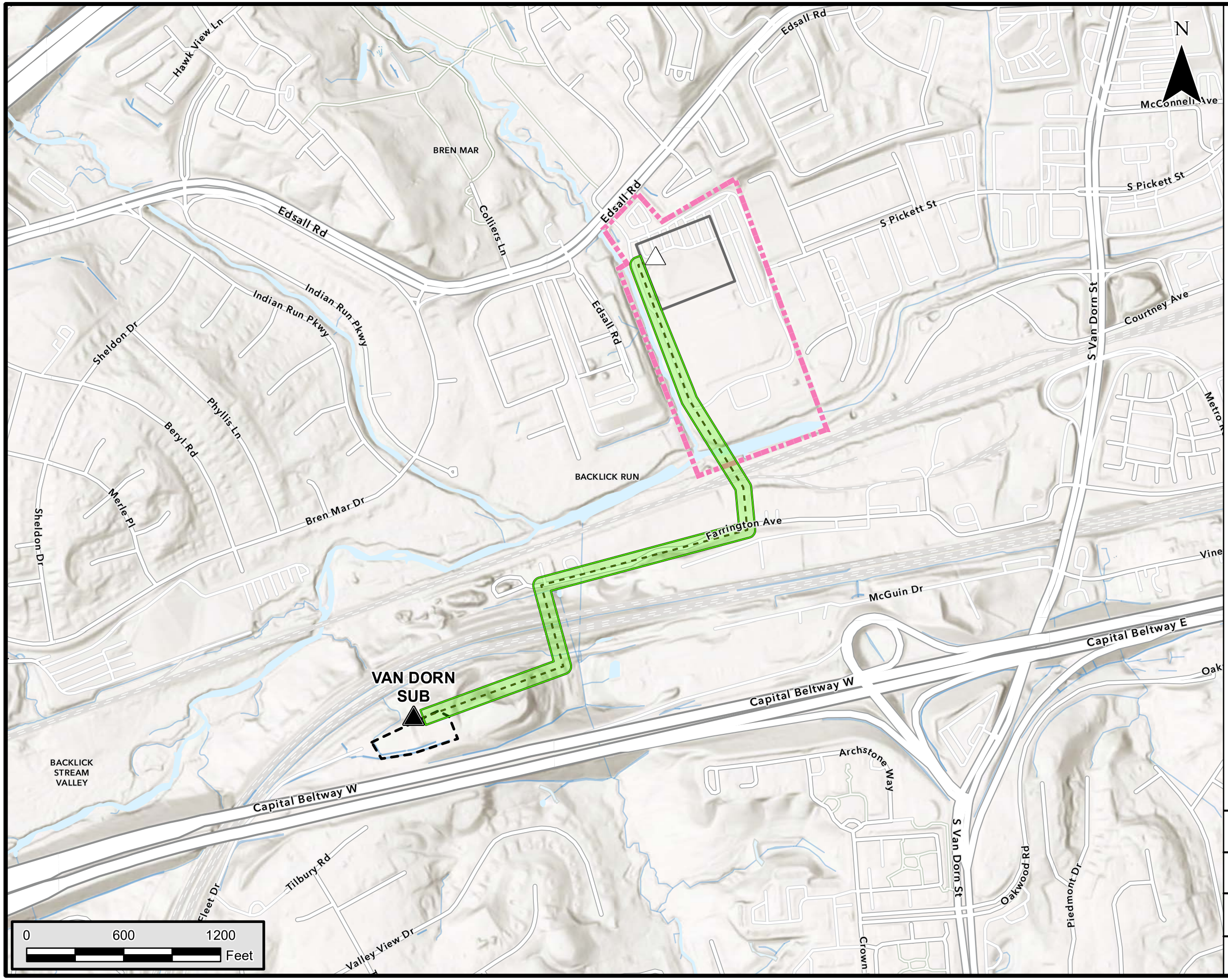


FIGURE NO.

TITLE:

PROJECT OVERVIEW MAP

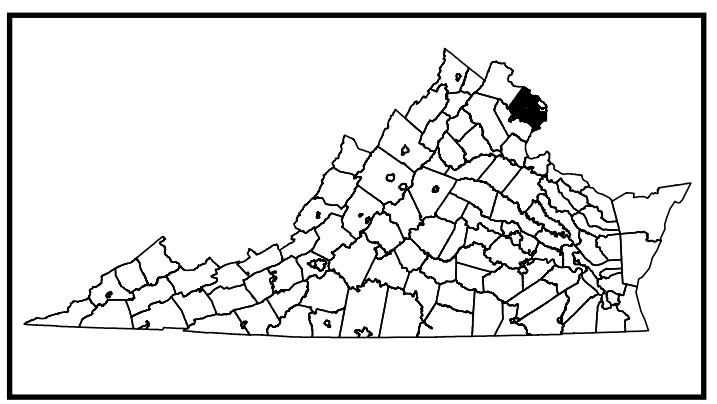
PROJECT:

230 KV LINES #210 AND #243 EXTENSION AND EDSALL SUBSTATION

LEGEND

- PROPOSED EDSALL SUBSTATION
- EXISTING SUBSTATIONS
- EXISTING SUBSTATION BOUNDARY
- PROPOSED SUBSTATION BOUNDARY
- PROPOSED TRANSMISSION LINE ROUTE
- CUSTOMER DATA CENTER CAMPUS

KEY PLAN



PROJECT NUMBER: 50163606	
SCALE: 1"= 600 FEET	DATE: 4/9/2024
PROJECT MANAGER: TL	Dewberry
DRAWN BY: MH	

From:	Fulcher, Valerie (DEQ)
To:	dgif-ESS Projects (DWR); Tignor, Keith (VDACS); DCR-PRR Environmental Review (DCR); odwreview (VDH); Ballou, Thomas (DEQ); Lovain, Anna (DEQ); Gavan, Larry (DEQ); Gavan, Larry (DEQ); Moore, Daniel (DEQ); Miller, Mark (DEQ); Kirchen, Roger (DHR); Simms, Danielle (DEQ); Lasher, Terrance J. (DOF); Folks, Clint (DOF); EIR Coordination (VDOT); Heller, Matthew (Energy); ImpactReview (impactreview@vof.org); MRC - Scoping (MRC); Lazaro, Robert (VDOT); Hermann, Katherine
Cc:	Lucas A Dupont (Services - 6)
Subject:	[EXTERNAL] NEW SCOPING Edsall Substation
Date:	Wednesday, April 10, 2024 1:47:28 PM
Attachments:	Edsall Substation and line Scoping response.pdf Agency Letter - General (DEES) (Edsall)(187485196.2).docx Agency Letters Map - FINAL (Edsall).pdf 2024.04.08 Edsall Route 1.zip

Good afternoon—attached is a request for scoping comments on the following:

Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation

If you choose to make comments, please send them directly to the project sponsor (lucas.a.dupont@dominionenergy.com**) and copy the DEQ Office of Environmental Impact Review: eir@deq.virginia.gov. We will coordinate a review when the environmental document is completed.**

DEQ-OEIR's scoping response is also attached.

If you have any questions regarding this request, please email our office at eir@deq.virginia.gov.

Valerie

Valerie A. Fulcher, CAP, OM, Admin/Data Coordinator Senior
Department of Environmental Quality
Environmental Enhancement - Office of Environmental Impact Review
1111 East Main Street
Richmond, VA 23219
NEW PHONE NUMBER: 804-659-1550
Email: Valerie.Fulcher@deq.virginia.gov
https://www.deq.virginia.gov/permits-regulations/environmental-impact-review [deq.virginia.gov]

For program updates and public notices please subscribe to Constant Contact:
https://lp.constantcontact.com/su/MVcCump/EIR [lp.constantcontact.com]

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482 FAX (804) 698-4178
www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

April 10, 2024

Lucas (Luke) DuPont
Environmental Specialist (Contractor)
Dominion Energy Environmental & Sustainability
120 Tredegar Street, Richmond, VA 23219
Via email: Lucas.a.dupont@dominionenergy.com

RE: Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation in Fairfax County, Virginia, Scoping Response

Dear Mr. DuPont:

This letter is in response to the scoping request for the above-referenced project.

As you may know, the Department of Environmental Quality, through its Office of Environmental Impact Review (DEQ-OEIR), is responsible for coordinating Virginia's review of environmental impacts for electric power generating projects and power line projects in conjunction with the licensing process of the State Corporation Commission.

DOCUMENT SUBMISSIONS

In order to ensure an effective coordinated review of the environmental impact analysis may be sent directly to OEIR. We request that you submit one electronic to eir@deq.virginia.gov (25 MB maximum) or make the documents available for download at a website, file transfer protocol (ftp) site or the VITA LFT file share system (Requires an "invitation" for access. An invitation request should be sent to eir@deq.virginia.gov.). The required "Wetlands Impact Consultation" can be sent directly to Michelle Henicheck at michelle.henicheck @deq.virginia.gov or at the address above.

ENVIRONMENTAL REVIEW UNDER VIRGINIA CODE 56-46.1

While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the preparation of the environmental impact analysis document. Accordingly, we have coordinated your request with the following state agencies and those localities and Planning District Commissions, including but not limited to:

Department of Environmental Quality:

- DEQ Regional Office
- Air Division
- Office of Wetlands and Stream Protection
- Office of Local Government Programs
- Division of Land Protection and Revitalization
- Office of Stormwater Management
- Office of Environmental Justice

Department of Conservation and Recreation
Department of Health
Department of Agriculture and Consumer Services
Department of Wildlife Resources
Virginia Marine Resources Commission
Department of Historic Resources
Virginia Energy
Department of Forestry
Department of Transportation

DATA BASE ASSISTANCE

Below is a list of databases that may assist you in the preparation of a NEPA document:

- DEQ Online Database: Virginia Environmental Geographic Information Systems

  Information on Permitted Solid Waste Management Facilities, Impaired Waters, Petroleum Releases, Registered Petroleum Facilities, Permitted Discharge (Virginia Pollution Discharge Elimination System Permits) Facilities, Resource Conservation and Recovery Act (RCRA) Sites, Water Monitoring Stations, National Wetlands Inventory:
  - www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx

- DEQ Virginia Coastal Geospatial and Educational Mapping System (GEMS)

  Virginia's coastal resource data and maps; coastal laws and policies; facts on coastal resource values; and direct links to collaborating agencies responsible for current data:
  - https://www.deq.virginia.gov/?splash=https%3a%2f%2fgaia.vcu.edu%2fportal%2fapps%2fsites%2f%23%2fgemsmaps&____isexternal=true

- MARCO Mid-Atlantic Ocean Data Portal

  The Mid-Atlantic Ocean Data Portal is a publicly available online toolkit and resource center that consolidates available data and enables users to visualize and analyze ocean resources and human use information such as fishing grounds, recreational areas, shipping lanes, habitat areas, and energy sites, among others.

  - http://portal.midatlanticocean.org/visualize/#x=-73.24&y=38.93&z=7&logo=true&controls=true&basemap=Ocean&tab=data&legends=false&layers=true

- DHR Data Sharing System.

Survey records in the DHR inventory:

- www.dhr.virginia.gov/archives/data_sharing_sys.htm

- DCR Natural Heritage Search

  Produces lists of resources that occur in specific counties, watersheds or physiographic regions:
  - www.dcr.virginia.gov/natural_heritage/dbsearchtool.shtml

- Wetland Condition Assessment Tool (WetCAT)
  - https://www.deq.virginia.gov/our-programs/water/wetlands-streams/wetcat

- DWR Fish and Wildlife Information Service

  Information about Virginia's Wildlife resources:
  - http://vafwis.org/fwis/

- Total Maximum Daily Loads Approved Reports
  - https://www.deq.virginia.gov/programs/water/waterqualityinformationtmdls/tmdl/tmdldevelopment/approvedtmdlreports.aspx

- Virginia Outdoors Foundation: Identify VOF-protected land
  - http://vof.maps.arcgis.com/home/index.html

- Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Database: Superfund Information Systems

  Information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation, including sites that are on the National Priorities List (NPL) or being considered for the NPL:
  - www.epa.gov/superfund/sites/cursites/index.htm

- EPA RCRAInfo Search

  Information on hazardous waste facilities:
  - www.epa.gov/enviro/facts/rcrainfo/search.html

- Total Maximum Daily Loads Approved Reports
  - https://www.deq.virginia.gov/our-programs/water/water-quality/tmdl-development/approved-tmdls

- EPA Envirofacts Database

  EPA Environmental Information, including EPA-Regulated Facilities and Toxics Release Inventory Reports:
  - www.epa.gov/enviro/index.html

- EPA NEPAssist Database

  Facilitates the environmental review process and project planning:
  http://nepaassisttool.epa.gov/nepaassist/entry.aspx

If you have questions about the environmental review process, please feel free to contact me (telephone (804) 659-1915 or e-mail bettina.rayfield@deq.virginia.gov).

I hope this information is helpful to you.

Sincerely,

Bettina Rayfield, Program Manager
Environmental Impact Review and
Long-Range Priorities

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

May 21, 2024

Lucas (Luke) DuPont
Environmental Specialist (Contractor)
Dominion Energy Environmental & Sustainability
120 Tredegar Street, Richmond, VA 23219
Email: Lucas.a.dupont@dominionenergy.com

Dear Mr. DuPont:

Thank you for the opportunity to review the preliminary materials associated with the "Edsall Substation and Edsall Lines" project in Fairfax County, Virginia. The project would include the construction of a new 230-34.5 kV substation (the "Edsall Substation") and extend its existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 ("Edsall Lines") from within the Company's existing Van Dorn Substation to the proposed Edsall Substation. The project would be constructed by Dominion Energy Virginia ("Dominion Energy") to provide service requested by a data center customer.

The responses in this memorandum have been coordinated among the Fairfax County Departments of Public Works and Environmental Services (DPWES), Land Development Services (LDS), Planning and Development (DPD), and Transportation (FCDOT).

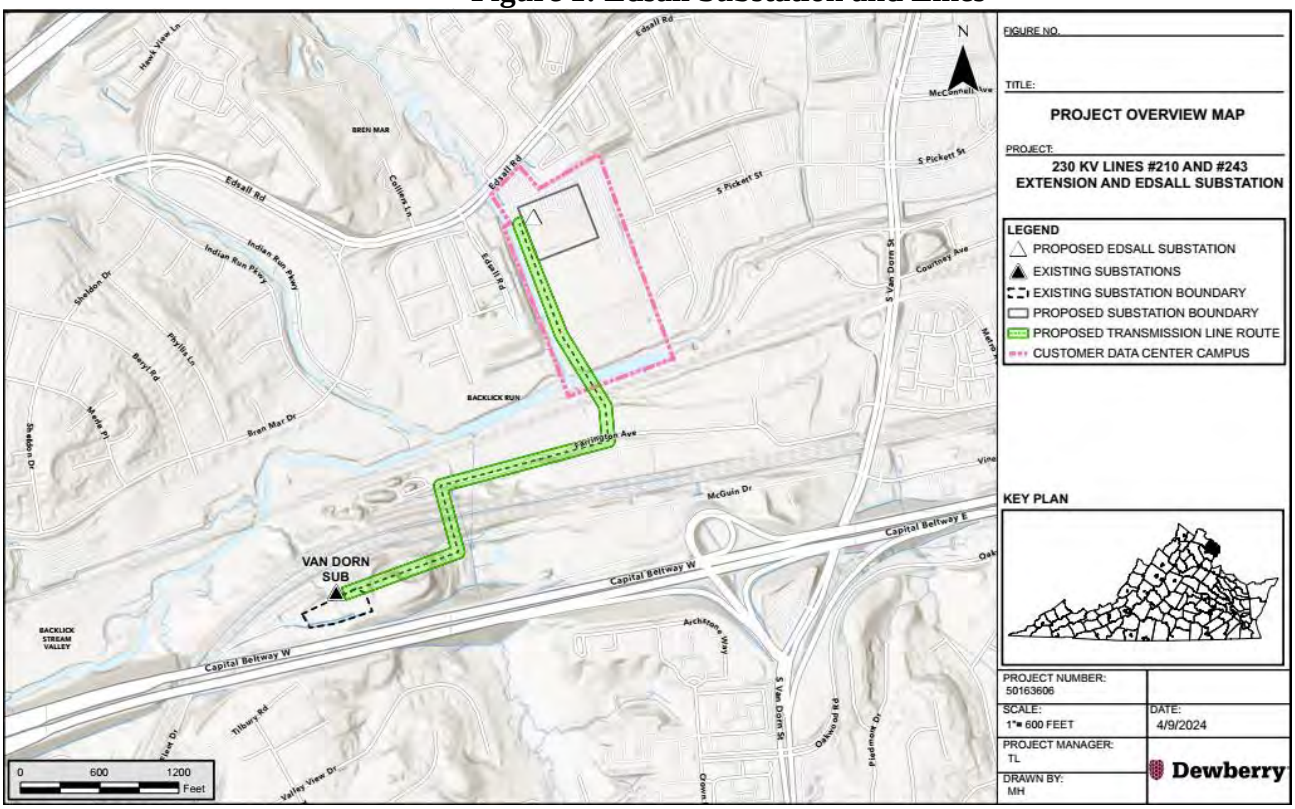
PROJECT DESCRIPTION

Project Components

The Project is comprised of two basic components:

1. Construction of a new 230-34.5 kV substation on approximately 5 acres in the northern portion of the current Plaza 500 business center located at 6925 Edsall Road, Alexandria, Virginia; and
2. Extension of an existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 along a proposed route, approximately 4,600 feet in length, from the existing Van Dorn Substation located at 5850 Tilbury Road, Alexandria, Virginia, southwest of the proposed substation.

Figure 1: Edsall Substation and Lines



Source: Dominion Energy

STAFF COMMENTS

Policy Guidance

Listed below is a discussion of Fairfax County policies and factors related to the site and route selection for the project. These comments are intended to help guide the development of the project as part of a future, more formal environmental assessment.

Land Use

Bren Mar Park and The Edges at Edsall residential communities are located north of the subject site. Residential uses are also located to the west. Industrial uses are located to the east and south. Land Use policies of the Comprehensive Plan promote a harmonious development pattern and development design that minimizes potential adverse impacts between different uses (Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Land Use, Amended through 6-28-2022, Objectives 8 and 14).

To minimize the visual impacts of the substation, it is recommended that landscape buffers and screenings are provided to the maximum extent possible, particularly along the property lines adjacent to existing residential uses and along the Edsall Road frontage.

Dominion Energy should provide the rationale for constructing a new substation on the subject site versus an expansion of the existing substation located at 5850 Tilbury Road.

Electrical Facilities

The provision of electrical facilities is guided by the Public Facilities policies of the Comprehensive Plan, namely Objectives 41 and 42. A 2232 Public Facility Review application will be required for the substation, as required in the Code of Virginia requirement under Section 15.2-2232. The County's 2232 Review Process determines the compatibility of proposed public facilities with the locational guidelines established in the Comprehensive Plan. Specifically, this process determines if the general or approximate location, character and extent are in substantial accord with the Fairfax County Comprehensive Plan. More information on the 2232 review process or where the application can be submitted can be found at Public Facilities 2232 Review Process | Planning Development (fairfaxcounty.gov)

Overall, transmission line facilities, including substations, are to be located as unobtrusively as possible and avoid areas of environmental sensitivity. Visual and auditory impacts should be a key element in the evaluation of the facilities. Additionally, whenever possible, transmission lines should be constructed underground, preferably along lot lines.

Water Resources Protection and Restoration Policies

The Environment Element of the Policy Plan states that the protection and restoration of the ecological integrity of streams is expected in Fairfax County. In order to minimize the impacts that development may have on county streams, the Comprehensive Plan encourages the protection of stream channels, the protection of buffer areas along stream channels, and commitments to the restoration of degraded stream channels and riparian buffer areas. (Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 6-28-2022, Objective 2). Additionally, the Capital Facilities Element of the Policy Plan encourages the location of electrical facilities as unobtrusively as possible and avoid areas of environmental sensitivity. (Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 6-9-2020, Objective 41). The Comprehensive Plan also recognizes that a *"conserved network of different habitats can accommodate the needs of many scarce or sensitive plant and animal species. Natural open space also provides scenic variety within the county, and an attractive setting for and buffer between urban land uses. In addition, natural vegetation and stream valleys have some capacity to reduce air, water and noise pollution."* (Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 6-28-2022, Objective 9).

Backlick Run is located south of the subject site, which connects to Backlick Run Park and Backlick Stream Valley Park to the west. Turkeycock Creek is located along the western portion of the subject site and connects to Bren Mark Park to the north.

Soils maps indicate that the proposed development area contains Codorus and Hatboro (30), Kingstowne (66), Kingstowne-Sassafras-Marumsco Complex (71), Sassafras-Marumsco Complex (91), Urban Land (95), and Urban Land-Kingstowne Complex (100) soils. Codorus and

Hatboro soils occur in floodplains and drainageways. Sassafras-Marumsco Complex soils (marine clays), present on portions of the existing Van Dorn substation, require intensive geotechnical analysis prior to construction. The remaining soils are typically found in developed areas, are impervious, and have diminished ability to infiltrate stormwater. Several stream restoration projects are proposed near the area; however, the Watershed Implementation Branch staff find no direct impacts to proposed green infrastructure investments from the proposed transmission line route. Several privately maintained stormwater management facilities such as S0768/DP0102 exist on the northern part of 6295 Edsall Rd and S0768/MB033 along the eastern property line.

Resource Protection Areas (RPA), FEMA flood zones, and/or potential wetlands associated with Turkeycock Run, Backlick Run, and an unnamed perennial stream are present along the proposed transmission line route and immediately west of the proposed substation on this property. There is a Floodplain Use Determination (FPUD-2024-00034) currently under review for proposed plantings and removal of asphalt within the RPA. Dominion Energy should continue to coordinate with the County's Departments of Planning and Development and Land Development Services to determine potential county permitting requirements.

For the electric transmission lines, the construction, installation, operation, and maintenance of these lines are conditionally exempt from the Chesapeake Bay Preservation Ordinance (CBPO). This is stated in the exemption for public utilities, railroads, public roads, and facilities in 9 VAC 25-830-150. However, the development of the rest of the site includes the removal of existing impervious area and re-establishment of the buffer area to the prescribed planting density defined in County's Public Facilities Manual (PFM) section 12-0316.4. Any loss of proposed planting in that area would put the site out of compliance, even if the loss was due to an exempt activity. If transmission lines are being considered in an area that could impact the re-established buffer area, they should be included within the Water Quality Impact Assessment (WQIA) package to ensure the proper density is being met in the ultimate condition of the site. Dominion Energy should continue with policies to use Best Management Practices to limit impacts to RPAs to the maximum extent versus the stated minimum extent possible while safely and effectively constructing and maintaining its infrastructure.

The following recommendations should be considered as part of stormwater management measures for on-site and adjacent RPAs, floodplains, and wetlands to minimize impacts to water resources:

- Existing stormwater management facilities should be shown and protected or vacated from the County inventory.
- Existing stormwater easements along the eastern side of the property located at 6295 Edsall Rd, should also be noted on plans and existing stormwater management facilities shown and protected.
- There are many sump areas along the proposed electric transmission line route where vegetated swales with native meadow mix seeding are recommended to be provided as a low maintenance option to assist in improved water quality and stormwater run-off reduction to protect downstream green infrastructure investments.

- Existing paved areas proposed to be removed within RPAs should include extensive soil remediation and landscaping, such as native trees, shrubs, and perennials to enhance stormwater management and habitat value of these areas. To improve soil quality, plant health, and infiltration of the project area, soil in areas proposed for plantings which contain construction debris and rubble, is compacted, or is otherwise unsuitable for the establishment and long-term survival of landscape plants should be the subject of remedial action to restore planting areas to satisfy cultural requirements of trees, shrubs, and groundcovers specified in the landscape planting plan.
- Minimize runoff from the site during land disturbance activities through the avoidance of sensitive slopes and soils and compliance with the applicable erosion and sediment control and stormwater management measures, with the submission of plans to Fairfax County and the Virginia Department of Environmental Quality, as applicable, for review prior to receiving a construction permit and the commencement of any land disturbing activities; give special consideration to the prevention of erosion on slopes and the stabilization of stream banks.
- To minimize overall impacts to wildlife and other natural resources and to conserve, protect, replenish, propagate, and increase fish and wildlife:
  - Avoid the loss of riparian and aquatic habitat; protect the integrity of all streambeds to allow the unhindered passage of aquatic organisms.
  - Avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable; avoid filling or channelization of drainageways.
  - Maintain undisturbed forested buffers around on-site wetlands and perennial and intermittent streams, wherever feasible, to help protect the forest/wetland complex, maintain healthy stream conditions, and maintain functional wildlife corridors.
  - Strictly adhere to erosion and sediment controls during ground disturbance; avoid the use of synthetic/plastic erosion and sediment control matting in lieu of matting made of natural/organic materials, such as coir fiber, jute, and/or burlap.
  - Design and perform any instream work to avoid or minimize impacts on streamflow and the movement of resident aquatic species; conduct in-stream activities only during low- or no-flow conditions; stockpile any excavated material in a manner that prevents reentry into the stream; restore any impacted streambed and streambank contours; revegetate disturbed areas with native vegetation; and verify that streams are free of construction-related sediment and turbidity.
  - Perform a Biological Assessment to determine whether the project would affect critical habitat for local wildlife.

Vegetative Resources

The Fairfax County Comprehensive Plan anticipates that new development will include an urban forestry program and be designed in a manner that retains and restores meaningful amounts of tree cover, consistent with planned land use and good silvicultural practices. Good quality vegetation should be preserved and enhanced and lost vegetation restored through replanting. (Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 6-28-2022, Objective 10).

County policies also anticipate that public facilities will be designed, retrofitted, and maintained in an environmentally-sensitive manner with the application of natural landscaping methods with the goal of minimizing resource consumption, reducing stormwater runoff, decreasing life-cycle maintenance requirements, increasing the habitat value of each site, and increasing soil and plant health. Utility corridors are to be designed and maintained as natural areas to the extent practicable. Natural landscaping is to be monitored and maintained such that it remains viable over time. (Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Public Facilities, Amended through 6-9-2020, Objective 6).

The proposed project would likely entail the clearing of trees from RPAs, floodplain, and/or wetland areas, transforming the affected areas from forests to grasslands. The removal of the trees, construction activities, and the associated soil disturbance would create forest edges, introduce sun to otherwise shady locations, and allow invasive plant species the opportunity to infest these areas. Additionally, given the proposed extent and nature of the project, soils can be expected to be severely compacted at the end of the construction process, particularly for soils impacted while wet. If not remediated, the compaction could lead to high plant mortality, stunted plant growth, minimal water infiltration, and significant stormwater runoff from planted areas.

Staff is aware of Dominion Energy's document entitled "Shrub Species Recommended for Planting within Dominion Energy Electric Transmission Rights of Way." The list does not contain any grasses or forbs. Some of the listed plant species are non-native, including some classified as invasive by the State of Virginia and surrounding localities with known detrimental impacts on biodiversity and local ecosystems.

In furtherance of county vegetative resources policies, staff recommends the following:

- That all disturbed project areas be revegetated with locally-native, indigenous plants, to include shrubs, perennial grasses and grass-like plants; and perennial forbs, to build ecological structure in the landscape, to increase the viability of the plantings, to protect the soil, to prevent extreme temperature fluctuations, and to increase the habitat value of the site. Consideration should be given to the creation of both horizontal and vertical structure within planting groups. A grassland biome may be appropriate, with predominantly warm-season grasses interspersed with thickets of native shrubs, which can be managed by mowing.
- The use of Fairfax County Technical Bulletin No. 22-04 (Fairfax County Seeding Guidelines), which establishes seeding guidelines to promote the use of native plant species and limit the use of invasive plant species in seeding applications for soil stabilization, restoration, agriculture, turf, and landscaping.
- An update to the Dominion Energy shrub planting list to reflect current science regarding the invasiveness of exotic plant species and an expansion of the list to include the native plant communities recognized by the Virginia Department of Conservation and Recreation. (see: The Natural Communities of Virginia, Classification of Ecological Groups and Community Types, Virginia Department of Conservation and Recreation (Natural Communities of Virginia)).
- The completion of an invasive species management plan and the subsequent management of the project area. Invasives management is especially important for edge areas between remnant forest areas and disturbed areas.

- A commitment to soil aeration, which would help restore the infiltration and water-holding capacity of the soil, reduce stormwater runoff, and promote viable landscape plantings.
- The creation of extensive planted buffers around the proposed substation, to include groupings of native trees, shrubs, and perennials.
- Ensure the proposed transmission line easement maintains a vegetated planting buffer density as it extends across the various parcels, the county's Public Facilities Manual.

Fairfax County Department of Transportation

The proposed transmission line route would be within close proximity to I-495 and cross over rail lines used by Metrorail, VRE, Amtrak, CSX, etc. The following items should be considered during the planning of this project:

- Any high voltage line that enters the subject site should avoid impacts to the roadway that loops around the warehouse. While this roadway is used for business purposes, on-site, including by trucks (loading, off-loading) and employees, it is also used as an extension of South Pickett Street. It is another route that is used to get between South Van Dorn Street and Edsall Road.
- Any high-voltage line should avoid impacts to the rail line, which is used by Metrorail, VRE, Amtrak, CSX, etc.
- Any high-voltage line should avoid impacts to I-495, where VDOT is currently studying the feasibility of express lanes; the Fairfax County Comprehensive Plan calls for 10+ lanes, with HOV (which could be satisfied with the express lane project, if implemented).

CONCLUSION

Given the long-lasting project impacts on the community landscape, staff recommends that substation and line location options be evaluated in the context of county policies, as described above, and that this information be made available to the county. Additionally, we would appreciate the opportunity to discuss this information prior to the submittal of a formal application by Dominion Energy to the SCC.

We also anticipate a subsequent review, once a formal environmental assessment is available.

It should be noted that these comments represent staff analysis and do not reflect the opinion of the Fairfax County Board of Supervisors. If you have any questions regarding these comments, please contact Carly Aubrey of the Department of Planning and Development (DPD) at carly.aubrey@fairfaxcounty.gov or 703-324-1380. Thank you for the opportunity to comment.

Sincerely,

Tracy D. Strunk, AICP
Director, Department of Planning & Development

TDS: CMA

cc: Board of Supervisors
Bryan Hill, County Executive
Rachel Flynn, Deputy County Executive
Tracy Strunk, Director, DPD
Katherine Hermann, Branch Chief, Environmental Policy and Plan Development, DPD-Planning Division (PD)
Salem Bush, Branch Chief, Public Facilities, DPD-PD
Carly Aubrey, Senior Planner, DPD-PD
Katalin Barczay, LDS-Branch Chief, Site Development & Inspection Division
Linda Barfield, Planner, DPWES-SWPD
Michael Garcia, Chief, Transportation Planning Section, FCDOT
DEQ Office of Environmental Impact Review: eir@deq.virginia.gov

From: MRC - Scoping (MRC)
To: Lucas A DuPont (Services - 6)
Cc: Environmental Impact Review (DEQ); Payne, Khadijah (MRC)
Subject: [EXTERNAL] Re: Edsall Substation
Date: Friday, May 3, 2024 9:53:52 AM
Attachments: Edsall Substation VMRC Response.pdf

Good morning, Lucas:

Please find attached the VMRC agency comments regarding the above referenced project. Thank you for the opportunity to comment.

Regards,
VMRC

.....
Habitat Management Division
Virginia Marine Resources Commission
380 Fenwick Road
Fort Monroe, VA 23651
(757) 247-2285

COMMONWEALTH of VIRGINIA
Marine Resources Commission
380 Fenwick Road
Bldg 96
Fort Monroe, VA 23651-1064

Travis A. Voyles
Secretary of Natural and Historic Resources

Jamie L. Green
Commissioner

April 26, 2024

Dominion Energy Services, Inc.
Attn: Lucas DuPont
120 Tredegar Street
Richmond, VA 23219

Re: 230 kV Lines #210 and #243 Extension and 230-34.5 kV Edsall Substation, SCC Project Notification

Dear Mr. DuPont:

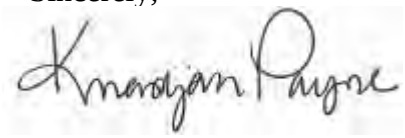
This will respond to the request for comments regarding the State Corporation Commission (SCC) Project Notification for the 230 kV Lines #210 and #243 Extension and 230-34.5 kV Edsall Substation, prepared by Dominion Energy Services, Inc. Specifically, Dominion Energy Services, Inc. has proposed to construct a new 230-34.5 kV substation ("Edsall Substation") and extend its existing single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from within the existing Van Dorn Substation to the proposed Edsall Substation (the "Edsall Lines"). The proposed line extension will cross over Backlick Run in Fairfax County, Virginia.

We reviewed the provided project documents and found the proposed project may impact resources within the jurisdiction of the Virginia Marine Resources Commission (VMRC) and may therefore require a permit from this agency.

Please be advised that the VMRC, pursuant to §28.2-1200 et seq of the Code of Virginia, has jurisdiction over encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water along non-tidal, natural rivers and streams with a drainage area greater than 5-square miles, a permit may be required from our agency or the Department of Environmental Quality. Any jurisdictional impacts will be reviewed by the VMRC during the JPA process.

Please contact me at (757) 788-6624 or by email at khadijah.payne@mrc.virginia.gov if you have any questions. Thank you for the opportunity to comment.

Sincerely,



Khadijah Payne
Environmental Engineer, Habitat Management

KP/dd
HM

PROJECT #50163606

WETLANDS AND WATERBODIES DESKTOP ANALYSIS

230 KV LINES #210 AND #243 EXTENSION AND 230-34.5 KV EDSALL SUBSTATION ENVIRONMENTAL ROUTING STUDY

Fairfax County, VA

JULY 18, 2024

Dewberry

ORIGINAL

SUBMITTED BY
Dewberry Engineers Inc.
8401 Arlington Boulevard
Fairfax, Virginia 22031-4666
703.849.0100

SUBMITTED TO
Dominion Energy
c/o Christa McDonald
5000 Dominion Blvd
Glen Allen, VA 23060

Wetland and Waterbody Desktop Summary

Table of Contents

Table of Tables

1. Project Introduction

Dewberry Engineers Inc. (Dewberry), on behalf of Virginia Electric and Power Company (Dominion Energy Virginia, Dominion, or the Company), conducted a desktop wetland and waterbody review of publicly available information for the proposed overhead 230 kilovolt (kV) Edsall Lines and Edsall Substation (230 kV Edsall Lines and Substation Project or the Project) located in Fairfax County, Virginia. The Project consists of extending two existing overhead single circuit transmission lines to a proposed substation (the Edsall Substation), resulting in two new overhead single circuit transmission lines (the Edsall Lines) as described below. The delineation was done using desktop resources and methodology. A field delineation is required to verify the accuracy and extent of aquatic resource boundaries. Attachment 1 depicts the general location of the proposed Project, and Attachment 2 illustrates the wetland boundaries that were identified as part of the desktop review.

Dominion Energy Virginia is filing an application with the State Corporation Commission (SCC) to:

- Extend the Company's existing overhead single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from Van Dorn Substation to the proposed 230-34.5 kV Edsall Substation, resulting in (i) 230 kV Edsall-Hayfield Line #210 and (ii) 230 kV Edsall-Ox Line #243 (collectively, the Edsall Lines); and
- Construct a new 230-34.5 kV substation in Fairfax County Virginia, on property to be obtained by the Company (the Edsall Substation).

The Project is needed to ensure that Dominion Energy Virginia can provide service requested by a data center customer (the Customer); to maintain reliable service for the overall growth in the area; and to comply with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards.

The purpose of this desktop analysis is to identify and evaluate potential impacts of the Project on aquatic resources (streams, creeks, runs, and open water features) in the Project area. In accordance with Virginia Department of Environmental Quality (DEQ) 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 DEQ as part of the DEQ Wetland Impacts Consultation.

This assessment did not include field investigations required for wetland delineations in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the Eastern Mountains and Piedmont or the Atlantic and Gulf Coastal Plain Regional Supplement (Environmental Laboratory, 2010 & 2012).

1.1 Project Study Area and Route Alternatives

The study area encompasses approximately 0.05 square miles (30.5 acres) primarily within southeastern Fairfax County, Virginia, but also encompasses a portion of the City of Alexandria along the eastern boundary. The limits of the study area are depicted in Attachment 1 and are generally encompassed within the developments between I-495, I-395, and South Van Dorn Street, as well as the areas east of Bren Mar Drive, south of Edsall Road, west of S. Pickett Street, and north of I-495.

After a review of the new build options that could address the power needs of a new proposed data center development to be constructed along Edsall Road in Fairfax County, Virginia, Dominion Energy Virginia identified one electrical option. This electrical option requires a new substation located along Edsall Road (Edsall Substation) that will be sourced by extending two existing overhead 230 kV single circuit transmission lines (existing Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243) on shared structures within a new 100-foot-wide right-of-way from the existing Van Dorn Substation located near McGuin Drive, resulting in (i) 230 kV Edsall-Hayfield Line #210 and (ii) 230 kV Edsall-Ox Line #243. Specifically, the proposed electrical solution requires removing an existing tie breaker (210T243) and two single circuit lattice structures, installing two 230 kV single circuit backbone structures, and performing protection upgrades all within the Company's existing Van Dorn Substation in order to extend Lines #210 and #243 approximately 0.9 mile starting from the eastern side of the Van Dorn Substation and terminating at the proposed Edsall Substation.

Dominion Energy Virginia identified three potentially viable overhead route alternatives (Routes 1, 2, and 3) that were evaluated as potential route alternatives for the Edsall Lines. Route 1 would run from the Van Dorn Substation eastward along and between the adjacent railroad corridors and into the industrial complex along Farrington Avenue before turning northward across the Norfolk Southern rail corridor and Backlick Run and running parallel to Turkeycock Run until its termination at the proposed Edsall Substation location. Route 2 would similarly run from the Van Dorn Substation eastward until turning northeast and crossing two rail corridors and Backlick Run, then travelling east parallel to Backlick Run until it crosses Turkeycock Run and turns northward towards the proposed Edsall Substation location. Route 3 would also run from the Van Dorn Substation eastward but turn northeast more immediately and cross two rail corridors and Backlick Run, then travelling east parallel to Backlick Run until it crosses Turkeycock Run and turns northward towards the proposed Edsall Substation location. All three routes would tap into the existing Van Dorn Substation and include two new single circuit 230 kV overhead transmission lines that extend from Van Dorn Substation to the proposed Edsall Substation. Additionally, all three routes would also connect to the proposed Edsall Substation at an anticipated location along Edsall Road opposite of its intersection with Winter View Drive.

The Company considered the facilities required to construct and operate the new feeds; the length of new rights-of-way that would be required; the amount of existing development in each area; the potential for environmental impacts on communities; and the relative cost of each route.

Three routes were identified that had the potential to meet the Project objectives. These route alternatives are described below and depicted in Attachments 1 and 2.

1.1.1 Route 1

Route 1 originates within the eastern side of the Company's existing Van Dorn Substation. After exiting the substation property, the route continues east for approximately 925 feet and then turns north for

approximately 500 feet, crossing the Washington Metropolitan Area Transit Authority (WMATA) Blue Line and the Virginia Passenger Rail Authority (VPRA) Richmond Fredericksburg and Potomac rail corridors. The route then turns east and continues through the Farrington Avenue industrial complex for approximately 1,350 feet before turning north between two industrial buildings. The Proposed Route 1 continues north for approximately 700 feet, crossing over the Norfolk Southern rail line and Backlick Run. At this point, the route enters into the Customer's data center campus and continues north just east of Turkeycock Run for a distance of 1,100 feet where it turns eastward and terminates at the proposed Edsall Substation in the northwestern corner of the existing Plaza 500 commercial center. This route would include two new 230 kV overhead single circuit transmission lines on shared double circuit monopoles within a 100-foot-wide right-of-way. Route 1 extends for approximately 0.9 mile.

1.1.2 Route 2

Route 2 originates within the eastern side of the Company's existing Van Dorn Substation. After exiting the substation property, the route follows the Route 1 alignment, continuing east for approximately 500 feet, crossing the WMATA Blue Line and the VPRA Richmond Fredericksburg and Potomac rail corridors. Route 2 then continues northward another approximately 650 feet, crossing the Norfolk Southern rail corridor and Backlick Run at an approximately perpendicular angle. Route 2 then turns eastward directly south of the end of First Statesman Lane and travels parallel to Backlick Run approximately 800 feet within Backlick Run Park before crossing Turkeycock Run. The route then turns northward continuing approximately 1,050 feet parallel to Turkeycock Run to the location of the proposed Edsall Substation in the northwestern corner of the existing Plaza 500 complex commercial center that abuts Edsall Road. This route would include two new 230 kV overhead single circuit transmission lines on shared double circuit monopoles within a 100-foot-wide right-of-way. Route 2 extends for approximately 0.9 mile.

1.1.3 Route 3

Route 3 begins at the northeastern corner of the Van Dorn Substation and runs approximately 325 feet eastward before turning northeast for approximately 1,150 feet, crossing the WMATA Blue Line and the VPRA Richmond Fredericksburg and Potomac rail corridors as well as the Norfolk Southern rail corridor and Backlick Run at a near-perpendicular angle. Route 3 then turns eastward at the confluence of Holmes Run and Backlick Run and travels parallel to Backlick Run approximately 1,600 feet within Backlick Stream Valley Park and Backlick Run Park before crossing Turkeycock Run. The route then turns northward continuing approximately 800 feet parallel to Turkeycock Run to the location of the proposed Edsall Substation in the northwestern corner of the existing Plaza 500 complex commercial center that abuts Edsall Road. This route would include two new 230 kV overhead single circuit transmission lines on shared double circuit monopoles within a 100-foot-wide right-of-way. Route 3 extends for approximately 0.8 mile.

1.2 Desktop Evaluation Methodology

The area of effect considered for this study consists of the rights-of-way identified above within which the electric transmission lines would be constructed and operated. Data sources used for this review include the following, each of which is described briefly below:

- U.S. Geological Survey (USGS) 7.5-minute current (2016-2022) and historic (1994-2013) topographic mapping;
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapping;

- U.S. Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) Soil Survey Geographic (SSURGO) database for Fairfax County, Virginia;
- Fairfax County Hydrography – Minor Streams (water feature lines) Datasets (Fairfax County Streams);
- Fairfax County Hydrography – Lakes, Rivers, Ponds, and Major Streams (wetland feature polygons) Dataset (Fairfax County Wetlands); and
- USGS National Hydrography Dataset (NHD).

1.2.1 Natural Color Aerial Photography

Recent (2016-2022) natural color aerial photography was used to provide a visual overview of the study area and to assist in evaluating current conditions. Areas were assessed by looking through aerials from different times of year to determine where deciduous hardwoods were present, which could be associated with potential wetlands.

1.2.2 USGS Topographic Maps

Recent (2016-2022) USGS topographic maps show the topography of the study area. The USGS topographic maps also depict other important landscape features such as forest cover, development, buildings, agricultural areas, streams, lakes, and wetlands. Historic topographic mapping (1994-2013) was used to identify potential changes in topography due to the high level of urban disturbance in a portion of the study area.

1.2.3 NWI Maps

NWI maps provide the boundaries and classifications of potential wetland areas as mapped by the USFWS. However, 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, when 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 the aerial photography. However, in areas where there was an obvious discrepancy between the NWI classification and the aerial photography, Dewberry modified the classification to more accurately reflect current conditions. For example, an area mapped by NWI data as open water may be adjusted to an emergent wetland type if emergent vegetation is observed. For the purposes of this review, wetlands mapped as unconsolidated bottoms or riverine were considered open water. In order to acknowledge Dewberry's adjustment of NWI classifications where appropriate, all of the wetland types referenced in this assessment are referred to as "assigned wetland cover types" regardless of whether the cover type was actually modified from the NWI classification.

1.2.4 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. 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. No soils meeting this definition were found within the study area. Partially hydric soils include map units that only contain minor component soils that are designated as hydric. The partially hydric map units in the study 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.

1.2.5 USGS Hydrography, Fairfax County Waterbody Datasets

The NHD and Fairfax County Waterbody datasets contain features such as lakes, ponds, streams, rivers, canals, dams, and stream gages. The waterbodies mapped by the NHD appeared consistent with those visible on the USGS maps and aerial photography. The Fairfax County Waterbody datasets were used in coordination with the USGS Hydrography dataset for additional refinement.

1.2.6 Probability Analysis – Stepwise Process

Dewberry has applied a stepwise process to identify probable wetland areas along the route alternatives, as follows:

1. Natural color aerial photography was used in conjunction with USGS topographic maps, soils maps, and Fairfax County wetland dataset 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.

2. 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 hydric soils information from the SSURGO database.

3. 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 class are outlined in Table 1.1 below.

Table 1.1 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	• 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

2. Results

2.1 Wetland Crossings

The desktop analysis provides a probability of wetlands and waterbody occurrences within each 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 three inches or larger diameter at breast height;
- Palustrine Unconsolidated Bottom (PUB) – wetlands 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 – wetlands within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergent, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts in excess of 0.5%.

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

A range of wetland occurrence probabilities are reported by this study 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 each route. Attachment 2 depicts the interpreted wetland cover types and the probabilities of wetland occurrence based on aerial imagery base map images.

Table 2.1 Summary of the Probabilities of Wetland Occurrence by Type along Each Route Alternative

PROBABILITY	TOTAL ACRES WITHIN THE RIGHT-OF-WAY	WETLAND AND WATERBODY TYPE (ACRES)				
		FORESTED WETLAND (PFO)	SCRUB/ SHRUB WETLAND (PSS)	EMERGENT WETLAND (PEM)	OPEN WATER WETLAND (POW)	RIVERINE/ STREAMS (R3/R4/R6)
Route 1						
High	0.2	N/A	N/A	N/A	N/A	0.2
Medium/High	N/A	N/A	N/A	N/A	N/A	N/A
Medium	0.1	0.1	N/A	N/A	N/A	N/A
Medium/Low	N/A	N/A	N/A	N/A	N/A	N/A
Low	N/A	N/A	N/A	N/A	N/A	N/A
Very Low	N/A	N/A	N/A	N/A	N/A	N/A
Route 2						
High	0.3	N/A	N/A	N/A	N/A	0.3
Medium/High	N/A	N/A	N/A	N/A	N/A	N/A
Medium	N/A	N/A	N/A	N/A	N/A	N/A
Medium/Low	N/A	N/A	N/A	N/A	N/A	N/A
Low	N/A	N/A	N/A	N/A	N/A	N/A
Very Low	N/A	N/A	N/A	N/A	N/A	N/A
Route 3						
High	0.4	N/A	N/A	N/A	N/A	0.4
Medium/High	N/A	N/A	N/A	N/A	N/A	N/A
Medium	N/A	N/A	N/A	N/A	N/A	N/A
Medium/Low	N/A	N/A	N/A	N/A	N/A	N/A
Low	N/A	N/A	N/A	N/A	N/A	N/A
Very Low	N/A	N/A	N/A	N/A	N/A	N/A

N/A Not applicable due to the absence of wetland or waterbody type within the route.
a The numbers in this table have been rounded for presentation purposes.
b Edsall Substation wetlands and waterbodies are included within the Edsall Lines proposed right-of-way rather than individually.

2.1.1 Route 1

Route 1 is approximately 0.9 mile long and encompasses a total of approximately 10.8 acres. Based on the methodology discussed above, the right-of-way will encompass approximately 1 percent (0.1 acre) of land with a medium or higher probability of containing wetlands.

2.1.2 Route 2

Route 2 is approximately 0.9 mile long and encompasses a total of approximately 10.0 acres. Based on the methodology discussed above, the entire right-of-way will have a very low probability of containing wetlands.

2.1.3 Route 3

Route 3 is approximately 0.8 mile long and encompasses a total of approximately 9.5 acres. Based on the methodology discussed above, the entire right-of-way will have a very low probability of containing wetlands.

2.2 Waterbody Crossings

Dewberry identified and mapped waterbodies in the study area using similar publicly available GIS databases as those used to identify and map wetlands. All of the route alternatives cross a perennial waterbody. According to the USACE, no waters considered navigable under Section 10 of the Rivers and Harbors Act are crossed by the route alternatives for the Project. Table 2.1 summarizes the waterbody crossings by route alternative.

2.2.1 Route 1

Based on NHD, Fairfax County Waterbody Datasets, and aerial imagery, Route 1 crosses one named perennial waterbody (Backlick Run; an R3 stream channel), encompassing approximately 0.2 acre (140 linear feet) within the study area.

2.2.2 Route 2

Based on NHD, Fairfax County Waterbody Datasets, and aerial imagery, Route 2 crosses two named perennial waterbodies (Backlick Run and Turkeycock Run; R3 stream channels), totaling approximately 0.3 acre (244 linear feet) within the study area.

2.2.2 Route 3

Based on NHD, Fairfax County Waterbody Datasets, and aerial imagery, Route 3 crosses three named perennial waterbodies (Backlick Run, Indian Run, and Turkeycock Run; R3 stream channels), totaling approximately 0.4 acre (310 linear feet) within the study area.

2.3 Project Impacts

Avoiding or minimizing new impacts on wetlands and streams was among the criteria Dominion Energy Virginia used in developing potential routes for the Project. While crossings of wetlands and streams could not be entirely avoided in siting this linear facility, Dominion Energy Virginia has minimized crossings of these features to the extent practicable. There would be no change in contours of wetlands and waterbodies, or redirection of the flow of water, and the amount of spoil from foundations and structure placement would be minimal. Excess soil in wetlands generated through foundation construction would be limited through the use of Best Management Practices (erosion and sediment controls) and would be removed from the wetland.

The majority of potential direct impacts on wetlands due to Project construction would be temporary in nature. Mats would be used for construction equipment to travel over wetlands, as appropriate. Due to the absence of an existing right-of-way, some new access roads may be necessary along the route. If a section of line cannot be accessed from existing roads, Dominion Energy Virginia may need to install a

culvert, ford, or temporary bridge along the right-of-way to cross small streams. In such cases, some temporary fill material in wetlands adjacent to such 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 siting transmission lines, perpendicular crossings of wetland systems are prioritized to minimize direct impacts to these sensitive areas and reduce overall impacts to the watershed.

To minimize impacts on wetland areas, the transmission line has been designed to span or avoid wetlands where possible, keeping transmission structures outside of wetlands to the extent practicable. Permanent direct impacts to wetlands would be limited to placement of structures within wetlands if unavoidable, and the potential permanent conversion of less than 0.1 acres of PFO wetlands within the right-of-way to PEM wetlands, depending on vegetation type and height maintained within the right-of-way.

Where tree clearing is required within the new right-of-way, PFO wetlands would be permanently converted to PEM wetlands. Forested wetlands and riparian buffers provide functions such as peak flood flow reduction, nutrient and sediment capture, filtration of pollutants to adjacent waterbodies, and habitat diversity. The conversion of forested wetlands would reduce or eliminate some of these functions.

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, and water temperature modification from shading. Vegetation within the right-of-way would be allowed to return to maintained grasses and shrubs after construction, which would provide some filtration stabilization to help protect waterbodies from pollutants. Within the stream buffers (100 feet), all trees will be hand felled with stumps left in place to reduce the potential for erosion. Shrubs and trees with a diameter at breast height of less than three inches will be left in place unless it impedes temporary access where they would be clipped, leaving roots in place which will be able to naturally regenerate.

3. Closing

This Wetland and Waterbody Summary report was prepared in accordance with the Memorandum of Agreement between the DEQ and the SCC, including changes to the Memorandum as directed by HB 1157 (effective July 1, 2024), 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: www.dominionenergy.com/Edsall.

4. References

Environmental Laboratory. 1987. Technical Report Y-87-1: Corps of Engineers Wetlands Delineation Manual US Army Corps of Engineers, Waterways Experiment Station. January 1987

Environmental Laboratory. 2012. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region. Prepared for U.S. Army Corps of Engineers Wetlands Regulatory Assistance Program. ERDC/EL TR-12-9. July 2012.

Fairfax County Authoritative Data, Water Feature Lines. 2024. Available online at Water Features lines | Water Features lines | Fairfax County GIS & Mapping Services Open Data Site (arcgis.com). Available online at https://www.fairfaxcounty.gov/maps/open-geospatial-data. Accessed January 2024.

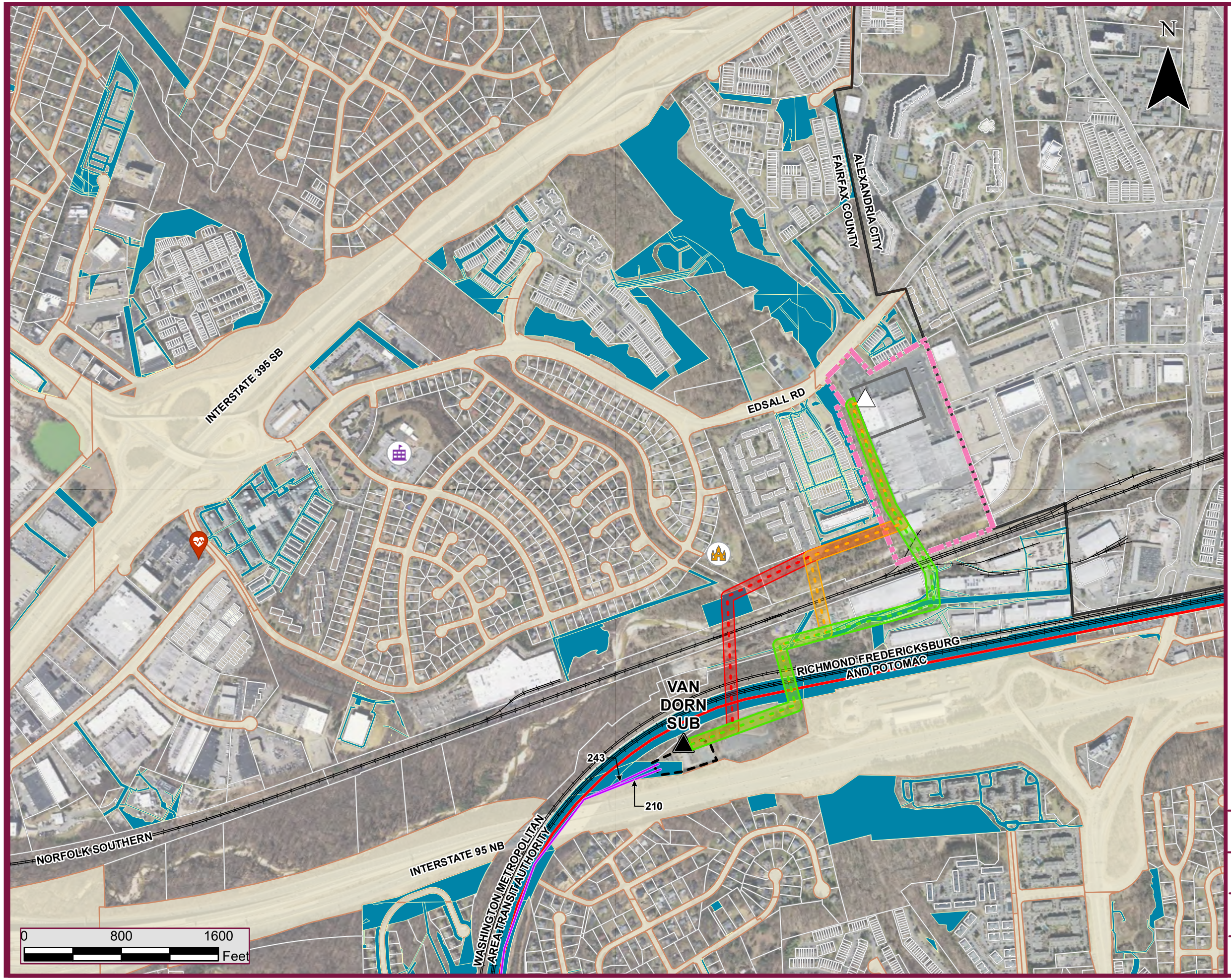
National Agricultural Imagery Program (NAIP). 2017. Digital Ortho-Rectified Natural Color Images and NAIP Digital Ortho-Rectified Infrared Images. Available online at https://www.fpacbc.usda.gov/geo/customer-service/naip-quarter-quad-shapefiles/index.html. Accessed January 2024.

United States Department of Agriculture, Natural Resource Conservation Service (NRCS). 2023. Soil Survey Geographic Data (SSURGO). Available online at websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed January 2024.

U.S. Fish and Wildlife (USFWS). 2023. National Wetlands Inventory. Available online at http://www.fws.gov/wetlands/. Accessed January 2024.

U.S. Geological Survey (USGS). 2019. U.S. Geological Survey. The National Hydrography Dataset. Available online at https://www.usgs.gov/national-hydrography/access-national-hydrography-products. Accessed January 2024.

Attachment 1
Project Overview Map



TITLE:

APPENDIX 2.D.1
WETLANDS DESKTOP STUDY

PROJECT: ATTACHMENT 1

230 KV LINES #210 AND #243
EXTENSION AND EDSALL SUBSTATION

ROUTE OPTIONS

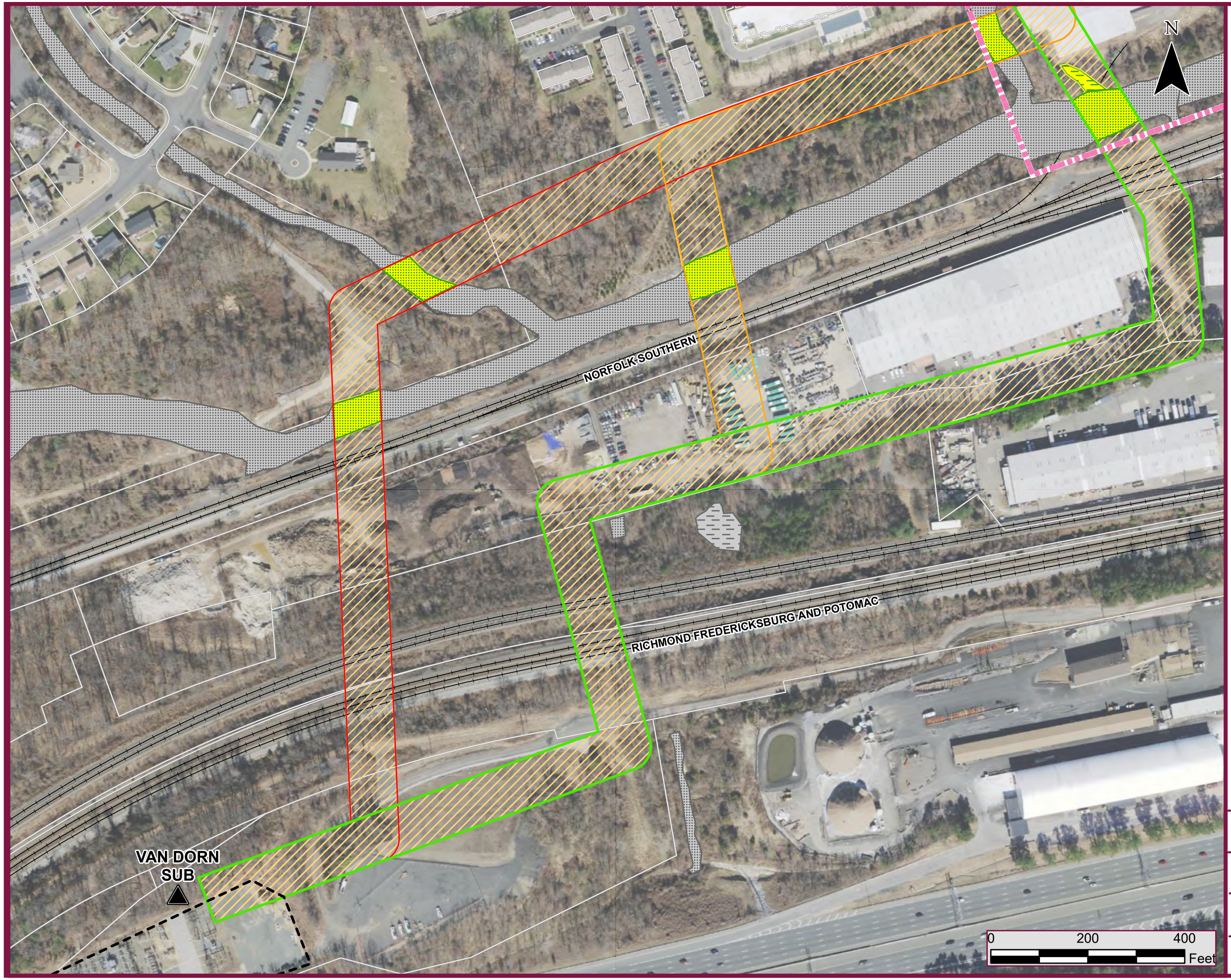
- ROUTE 1
- ROUTE 2
- ROUTE 3
- ROUTE 1 CENTERLINE
- ROUTE 2 CENTERLINE
- ROUTE 3 CENTERLINE

LEGEND

- EXISTING SUBSTATIONS
- PROPOSED EDSALL SUBSTATION
- PROPOSED SUBSTATION BOUNDARY
- EXISTING SUBSTATION BOUNDARY
- CUSTOMER DATA CENTER CAMPUS
- PLACES OF WORSHIP
- SCHOOL FACILITIES
- HOSPITALS AND URGENT CARE FACILITIES
- COUNTY LINE
- EXISTING EASEMENTS
- RIGHTS OF WAY (ROW)
- PARCEL BOUNDARY
- PLANTATION GAS
- EXISTING DOMINION TRANSMISSION LINES
- RAILROADS

PROJECT NUMBER: 50163606	
SCALE: 1"= 800 FEET	DATE: 7/11/2024
PROJECT MANAGER: TL	
DRAWN BY: MGH	Dewberry

Attachment 2
Probability of Presence Maps



TITLE:

ATTACHMENT 2.D.1
WETLAND DESKTOP ANALYSIS-
PROBABILITY OF PRESENCE MAPS

PROJECT: ATTACHMENT 2

230 KV LINES #210 AND #243
EXTENSION AND EDSALL SUBSTATION

ROUTE OPTIONS

- ROUTE 1
- ROUTE 3
- ROUTE 2

LEGEND

- EXISTING SUBSTATIONS
- PROPOSED EDSALL SUBSTATION
- PROPOSED SUBSTATION BOUNDARY
- EXISTING SUBSTATION BOUNDARY
- CUSTOMER DATA CENTER CAMPUS
- PARCEL BOUNDARY
- COUNTY LINE
- RAILROADS
- EXISTING DOMINION TRANSMISSION LINES

PREDICTED WETLAND/STREAM PRESENCE INSIDE AND OUTSIDE EASEMENT

- PRESENT
- ABSENT
- OUTSIDE ABSENT
- OUTSIDE PRESENT

WETLAND/STREAM TYPE INSIDE AND OUTSIDE EASEMENT

- WATERBODY/STREAM
- FORESTED
- OUTSIDE FORESTED
- OUTSIDE WATERBODY/STREAM

PROJECT NUMBER: 50163606	
SCALE: 1"= 200 FEET	DATE: 6/25/2024
PROJECT MANAGER: TL	Dewberry
DRAWN BY: MGH	

TITLE:

ATTACHMENT 2.D.1
WETLAND DESKTOP ANALYSIS-
PROBABILITY OF PRESENCE MAPS

PROJECT: ATTACHMENT 2

230 KV LINES #210 AND #243
EXTENSION AND EDSALL SUBSTATION

ROUTE OPTIONS

- ROUTE 1
- ROUTE 3
- ROUTE 2

LEGEND

- EXISTING SUBSTATIONS
- PROPOSED EDSALL SUBSTATION
- PROPOSED SUBSTATION BOUNDARY
- EXISTING SUBSTATION BOUNDARY
- CUSTOMER DATA CENTER CAMPUS
- PARCEL BOUNDARY
- COUNTY LINE
- RAILROADS
- EXISTING DOMINION TRANSMISSION LINES

PREDICTED WETLAND/STREAM PRESENCE INSIDE AND OUTSIDE EASEMENT

- PRESENT
- ABSENT
- OUTSIDE ABSENT
- OUTSIDE PRESENT

WETLAND/STREAM TYPE INSIDE AND OUTSIDE EASEMENT

- WATERBODY/STREAM
- FORESTED
- OUTSIDE FORESTED
- OUTSIDE WATERBODY/STREAM

PROJECT NUMBER: 50163606	
SCALE: 1"= 200 FEET	DATE: 6/25/2024
PROJECT MANAGER: TL	
DRAWN BY: MGH	Dewberry

ATTACHMENT
2.F.1

TITLE:

HAZMAT MAP

PROJECT:

230 KV LINES #210 AND #243 EXTENSION AND EDSALL SUBSTATION

VAN DORN SUB

243
210

N

0 .25 .50 Miles

LEGEND

- PROPOSED EDSALL SUBSTATION
- EXISTING SUBSTATIONS
- PROPOSED ROUTE CENTERLINE AND RIGHT-OF-WAY
- PROPOSED SUBSTATION BOUNDARY
- EXISTING SUBSTATION BOUNDARY
- CUSTOMER DATA CENTER CAMPUS
- EXISTING DOMINION TRANSMISSION LINES
- 1 MILE BUFFER
- 1000 FT BUFFER
- 200 FT BUFFER

SOLID WASTE FACILITIES
- SOLID WASTE FACILITIES

PETROLEUM FACILITIES
- DEQ TANKS

PETROLEUM RELEASES
- PETROLEUM RELEASES

LAND
- PREP REPORTS
- DEQ VRO
- EPA SUPERFUND

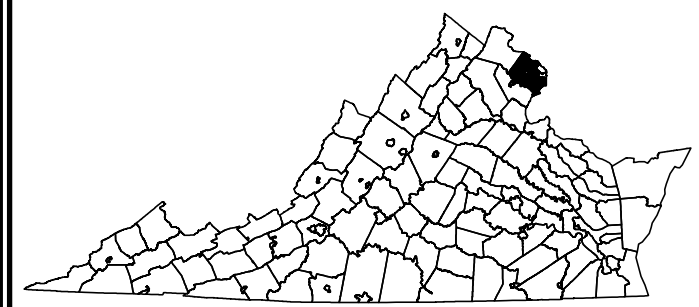
WASTE
- HAZARDOUS WASTE TRANSPORTERS
- LARGE QUANTITY GENERATORS (LQGS)
- HAZARDOUS WASTE ACTIVE
- HAZARDOUS WASTE INACTIVE

TOXICS
- TRI

WATER
- VPDES
- NPDES
- STORMWATER PERMITS

AIR
- DEQ ACTIVE AIR SITES
- ICIS AIR MAJOR
- ICIS AIR

KEY PLAN



PROJECT NUMBER: 50163606	
SCALE: 1"= .25 MILES	DATE: 4/23/2024
PROJECT MANAGER: TL	
DRAWN BY: MGH	Dewberry

Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES

Web Project ID: WEB0000022615

Client Project Number: 50163606

PROJECT INFORMATION

TITLE: 230kV Lines #210 and #243 Extension to the New 230-34.5 kV Edsall Substation

DESCRIPTION: The proposed project would construct two new overhead single circuit 230 kV transmission lines that would extend from the east side of the existing Van Dorn Substation and proceed to the proposed Edsall Substation, where they will terminate.

EXISTING SITE CONDITIONS: Industrial parcels intermixed with forested parcels. Surrounded by residential areas.

QUADRANGLES: Annandale

COUNTIES: Fairfax

Latitude/Longitude (DMS): 38° 47' 53.3718" N / 77° 8' 36.346" W

Acreage: 12 acres

Comments:

Instream Activity: No - Instream Work Not Required

Major Ground Disturbing Activities: Transmission line construction-new build, wreck and rebuild; Tree removal (timber harvest) with heavy machinery

Minor Ground Disturbing Activities: Hand Digging; Manual tree removal with chainsaw; Other: Hand clearing of limbs and "danger trees" if present

REQUESTOR INFORMATION

Priority: Y

Tier Level: Tier I

Tax ID:

Contact Name: Jacob Fleckenstein

Company Name: Dewberry

Address: 8401 Arlington Boulevard

City: FAirfax

State: VA

Zip: 22031

Phone: 7038490100

Fax:

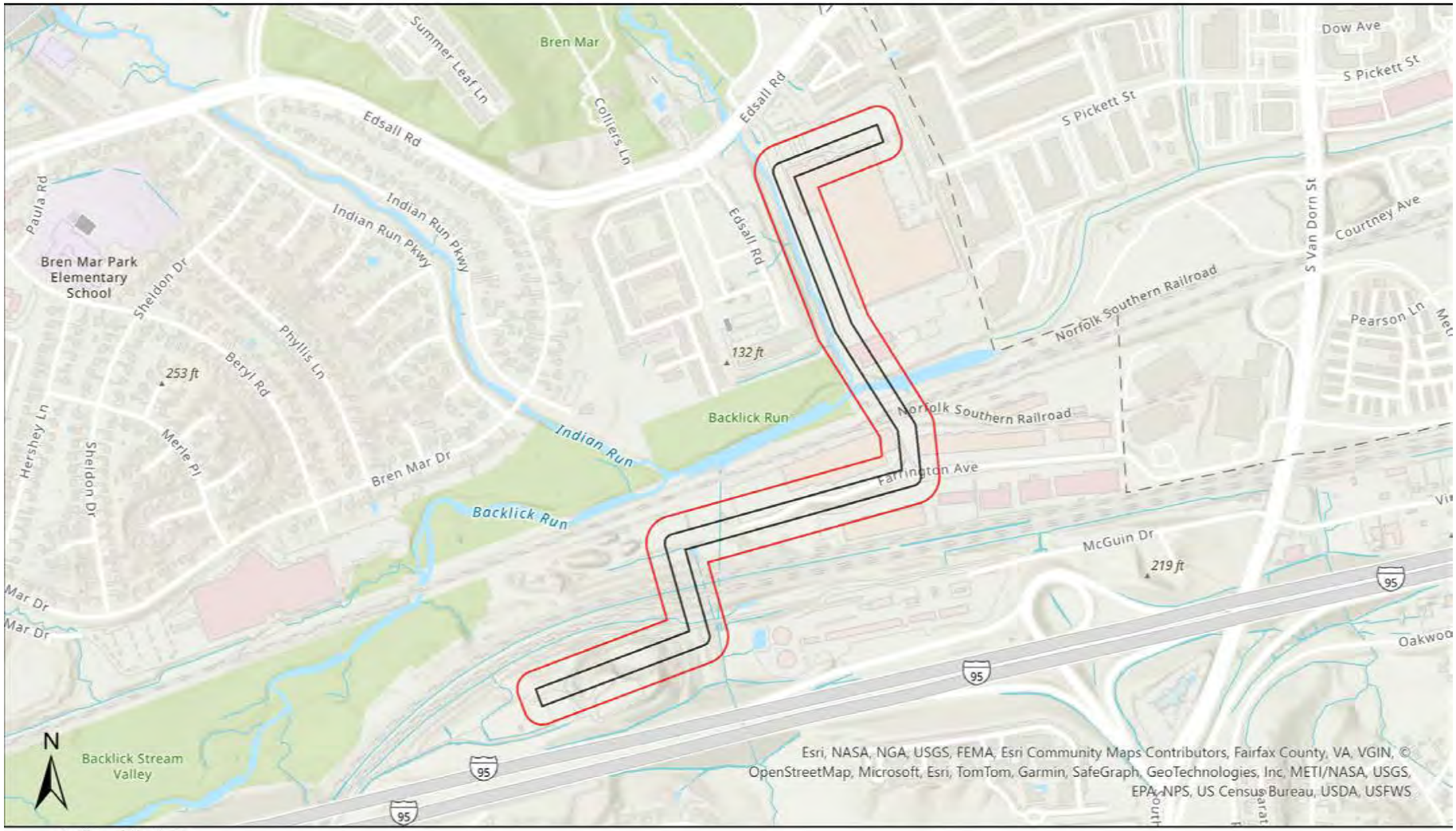
Email: jsfleckenstein@dewberry.com

Attachment 2.G.1
Page 1 of 35

Conservation Site	Site Type	Brank	Acreage	Listed Species Presence	Essential Conservation Site?
Natural Heritage Screening Features Intersecting Project Boundary					

Intersecting Predictive Models
Predictive Model Results

230kV Lines #210 and #243 Extension to the New 230-34.5 kV Edsall Substation



Buffered Project Boundary

Project Boundary

0 0.1 0.2 0.4 Miles

Scale: 1:8,597

Quads: Annandale

Counties: Fairfax

Company: Dewberry

Lat/Long: 384753 / -770836

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

The project mapped as part of this report has been searched against the Department of Conservation and Recreation's Biotics Data System for occurrences of natural heritage resources in the vicinity of the area indicated for this project. 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. In addition, the project area does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

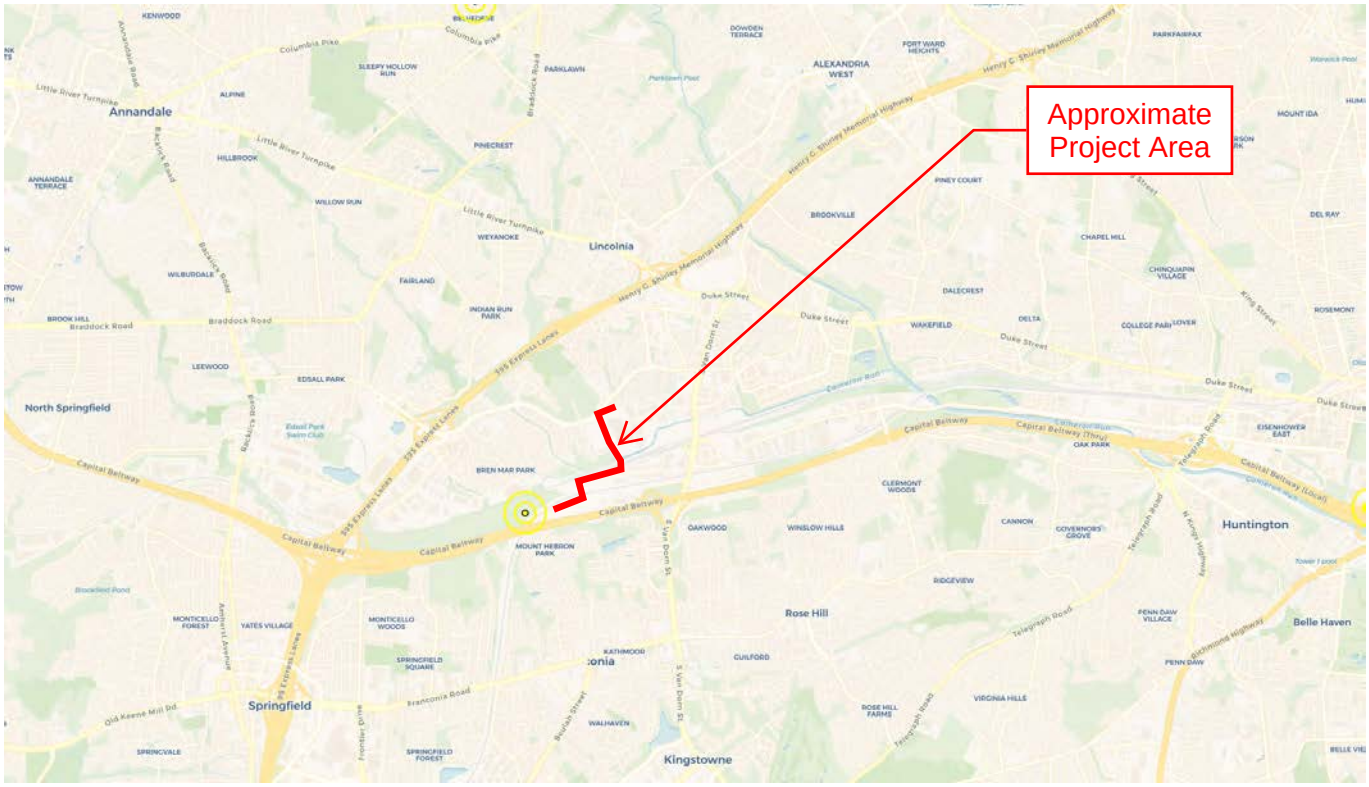
Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect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

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks additional natural heritage resources. New and updated information is continually added to Biotics. Please revisit this website or contact DCR for an update on this natural heritage information if a significant amount of time passes (DCR recommends no more than six months) before it is utilized.

The Virginia Department of Wildlife Resources maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, that may contain information not documented in the Natural Heritage Data Explorer. Their database may be accessed from https://services.dwr.virginia.gov/fwis/ or contact Amy Martin (804-367-2211 or amy.martin@dwr.virginia.gov).

Thank you for submitting your project to the Virginia Department of Conservation and Recreation's Natural Heritage Data Explorer Web Service. Based on the preliminary screening results for this project, no further correspondence will be sent from this office. Should you have any questions or concerns about this report, the Data Explorer, or other Virginia Natural Heritage Program services, please contact the Natural Heritage Project Review Unit at 804-371-2708.

CCB Mapping Portal



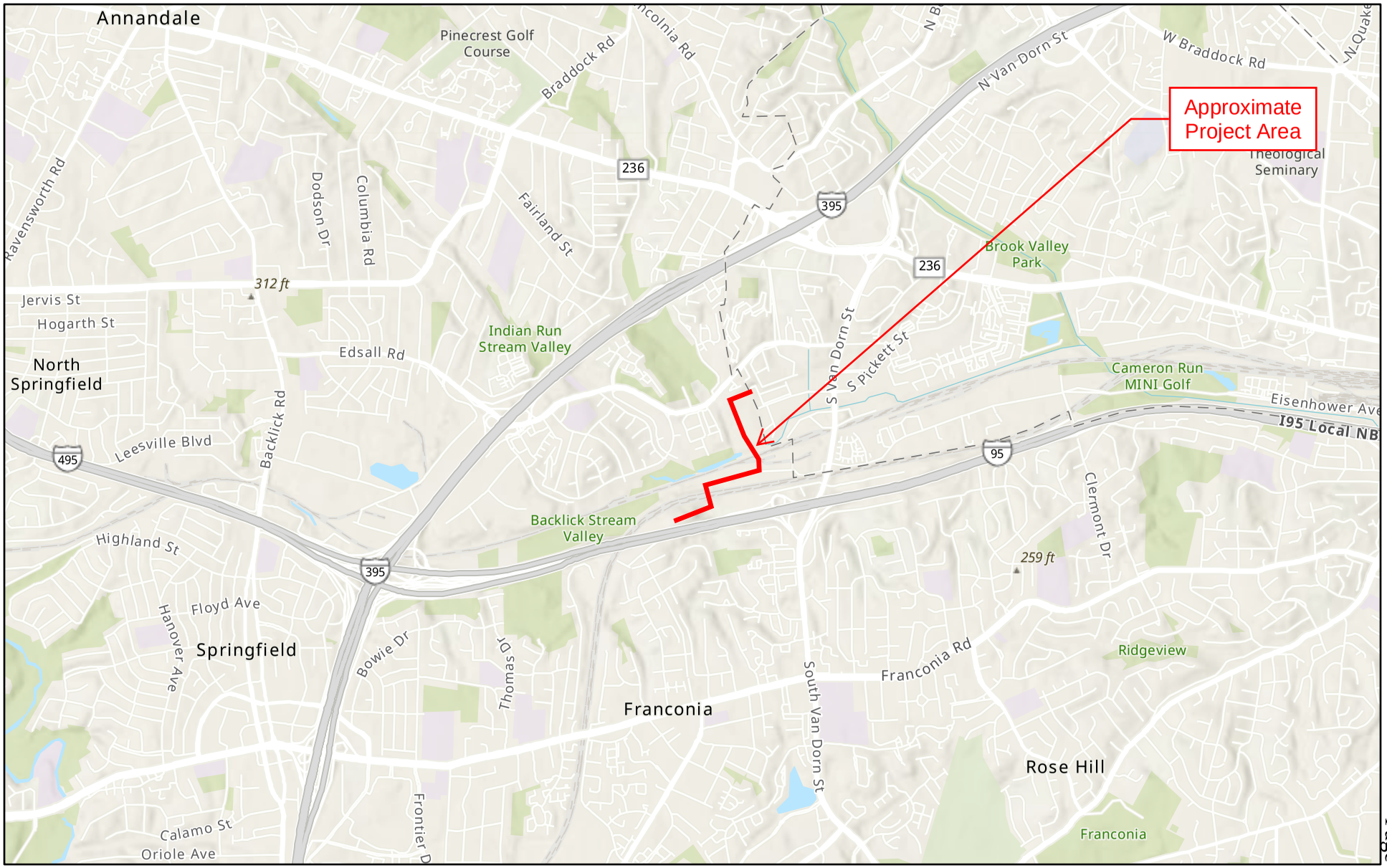
Layers: VA Eagle Nest Locator, VA Eagle Nest Buffers, Eagle Roosts

Map Center [longitude, latitude]: [-77.13981628417969, 38.801757954634816]

Map Link:
https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&layer=Eagle+Roosts&zoom=14&lat=38.801757954634816&lng=-77.13981628417969&legend=legend_tab_59557df6-c07b-11e5-a485-0e31c9be1b51&base=Street+Map+%28OSM%2FCarto%29

Report Generated On: 03/12/2024

Eagle Concentration Map



3/12/2024

Eagle Concentration Area

U.S. Fish & Wildlife Service - Bald Eagle Concentration Areas - Virginia
https://hub.arcgis.com/datasets/4ab53b948d734e9cbeb7fa18525d3783/explore

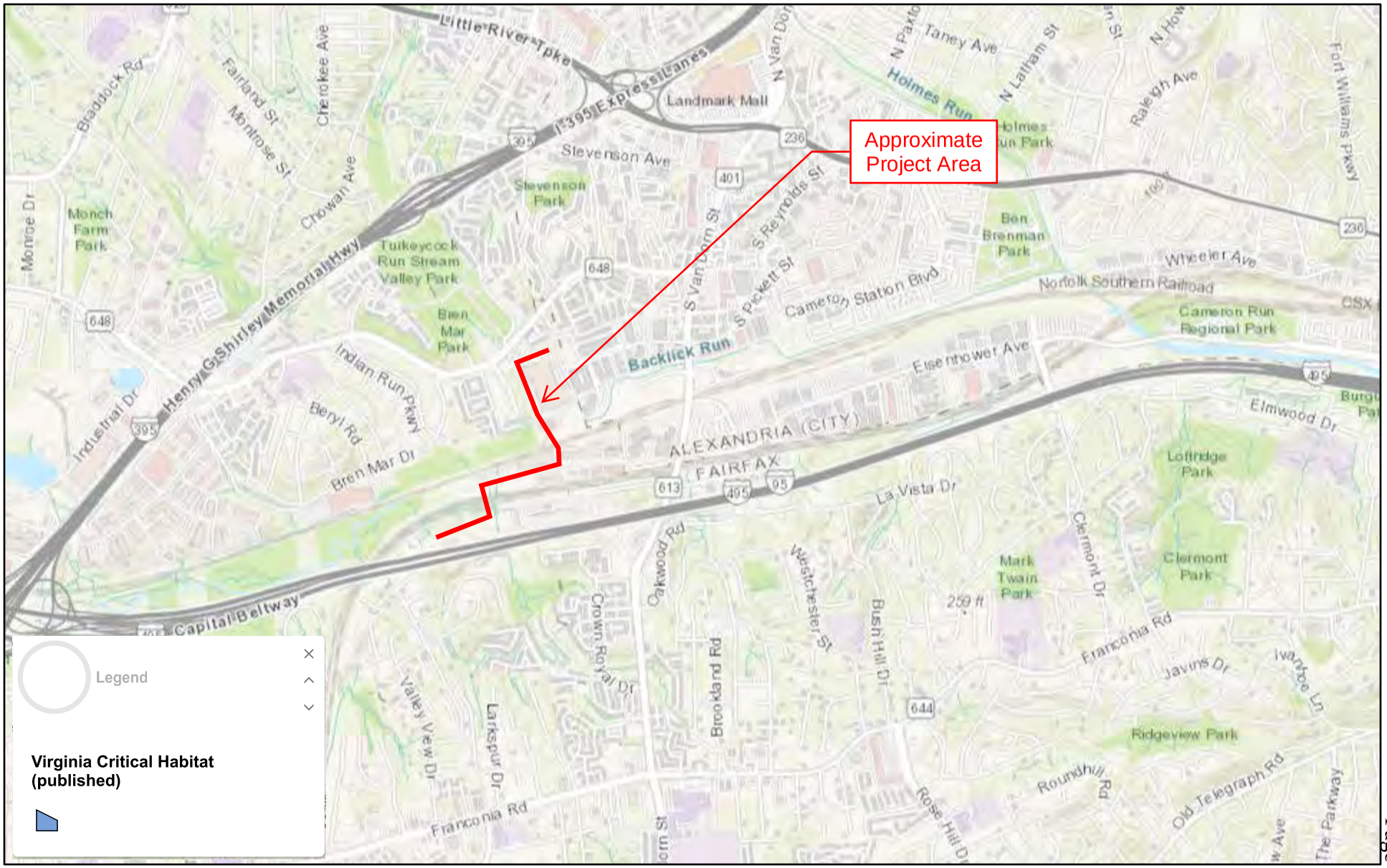
1:54,770

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Esri, NASA, NGA, USGS, FEMA, Fairfax County, VA, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS,

Critical Habitat Map



March 12, 2024

U.S. Fish & Wildlife Service - Virginia Field Office
Critical Habitat Online Mapper
http://fws.maps.arcgis.com/apps/Viewer/index.html?appid=f6e84e675ba1461b8ae6a351adea1429

1:36,112

0 0.23 0.45 0.9 mi

0 0.38 0.75 1.5 km

Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Alexandria and Fairfax counties, Virginia

Local office

Virginia Ecological Services Field Office

(804) 693-6694

6669 Short Lane

Gloucester, VA 23061-4410

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. 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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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 conservation 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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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 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 (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

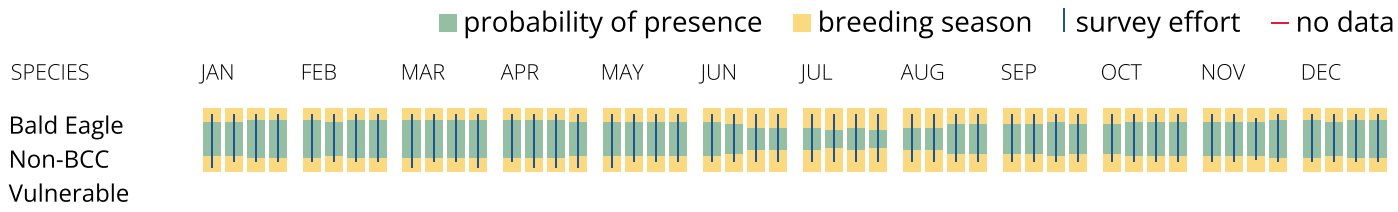
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

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 conservation 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

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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 — Breeds Sep 1 to Aug 31
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

Black-billed Cuckoo Coccyzus erythropthalmus — Breeds May 15 to Oct 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9399

Bobolink Dolichonyx oryzivorus — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Canada Warbler Cardellina canadensis — Breeds May 20 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Chimney Swift Chaetura pelagica — Breeds Mar 15 to Aug 25
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Eastern Whip-poor-will Antrostomus vociferus — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

King Rail Rallus elegans — Breeds May 1 to Sep 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8936

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Pectoral Sandpiper Calidris melanotos — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler Protonotaria citrea — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird Euphagus carolinus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Willet Tringa semipalmata — Breeds Apr 20 to Aug 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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 (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

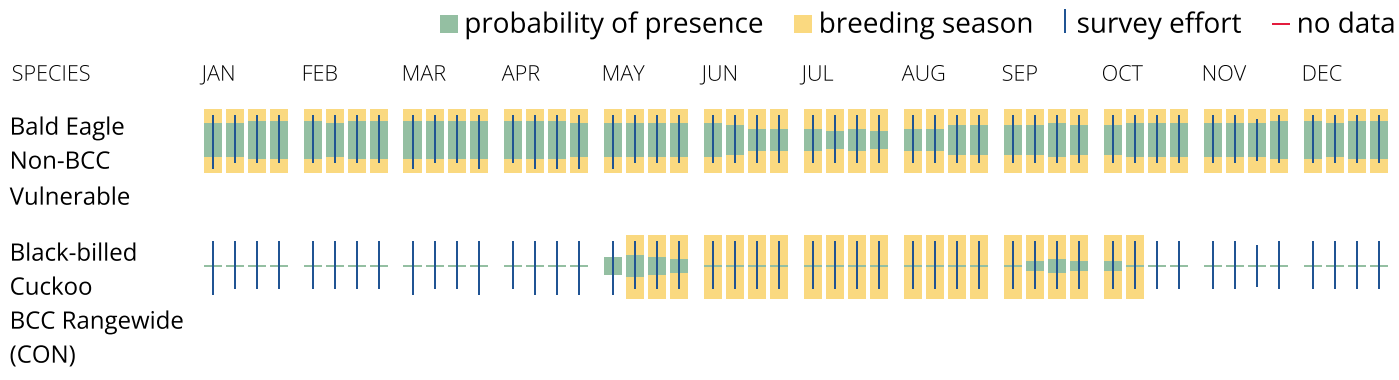
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

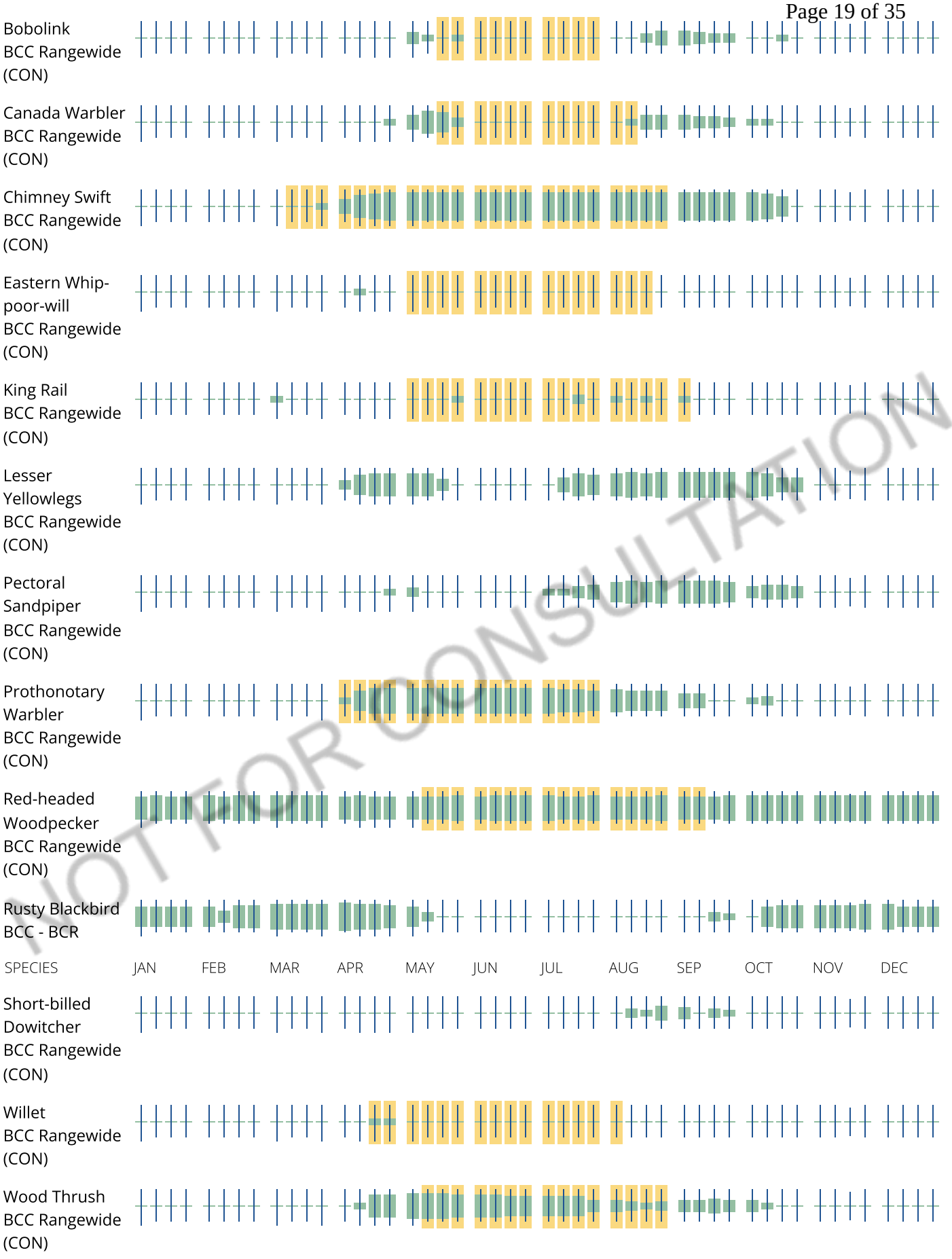
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or

minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

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 at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

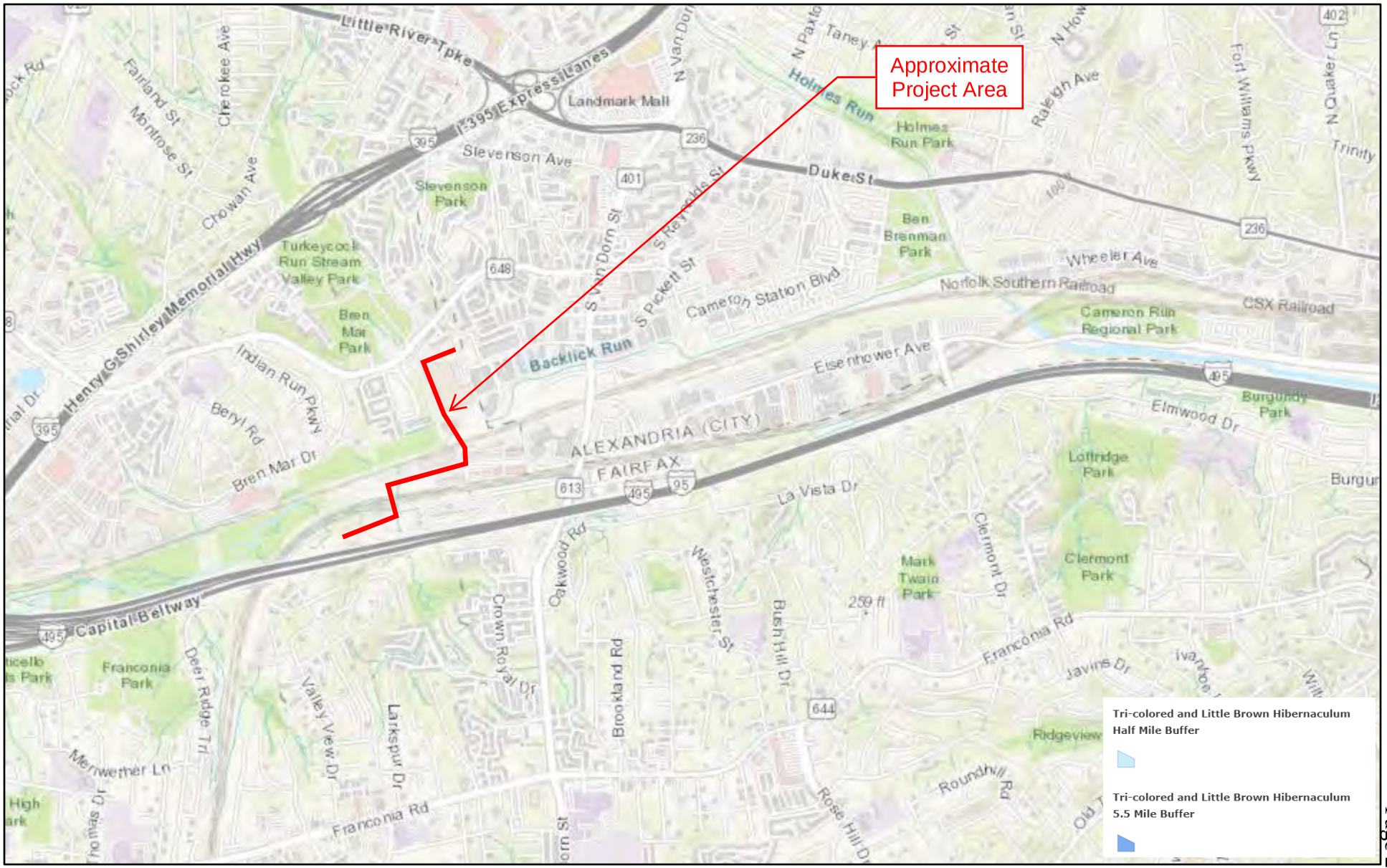
Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Tricolored Bat & Little Brown Bat Map



3/12/2024, 12:46:55 PM

Virginia Department of Wildlife Resources
Little Brown & Tricolored Bat Habitat Mapper
https://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=15cf32b9c82b426fb6be47b6c8d5b624

1:36,112

0 0.23 0.45 0.9 mi

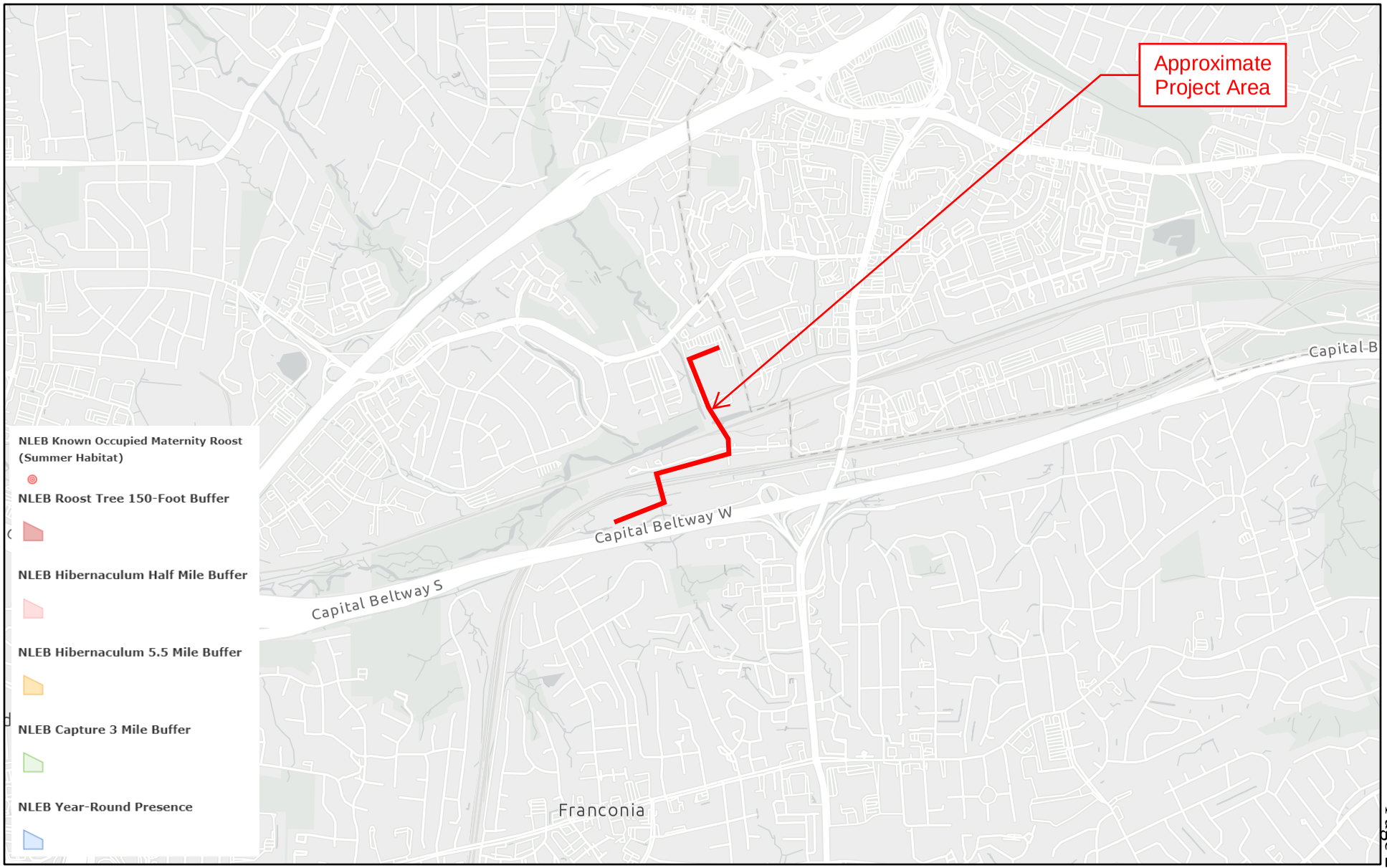
0 0.38 0.75 1.5 km

Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

Dept. Game and Inland Fisheries

Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA |

NLEB Locations and Roost Trees



3/12/2024, 12:44:22 PM

Virginia Department of Wildlife Resources
NLEB Regulatory Buffer Interactive Tool
https://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=32ea4ee4935942c092e41ddcd19e5ec5

1:36,112

0 0.23 0.45 0.9 mi

0 0.38 0.75 1.5 km

Fairfax County, VA, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

VA Dept. Game & Inland Fisheries

Fairfax County, VA, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS | Virginia Geographic Information Network (VGIN), and the Census and Localities and Towns submitting data to

Site Location

38,47,56.8 -77,08,41.2
is **the Search Point**

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

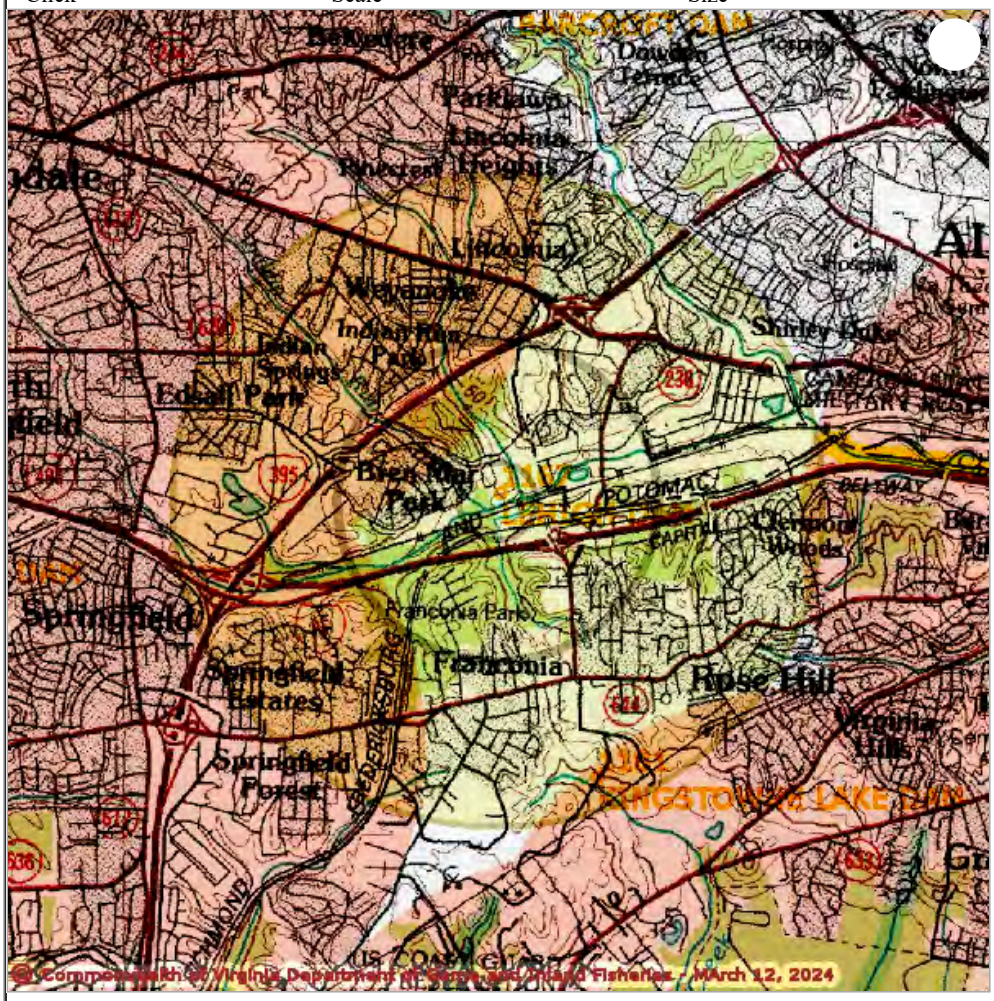
Show Search Area
(•) Yes ( ) No
2 Search distance miles radius

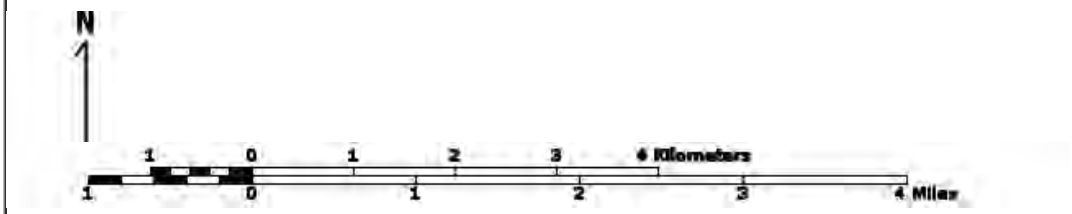
Search Point is at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Position, Search, BECAR, BAEANests, TEWaters, TierII, Habitat, Trout, Anadromous

Map Click 38,48,02.6 -77,06,40.6 Pan Id M
Map Scale In Zoom Out
Refresh Browser Page
Screen Size Small Size Big
Help





Point of Search 38,47,56.8 -77,08,41.2
Map Location 38,47,56.8 -77,08,41.2

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: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 308947 and top 4301471. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5

Map Overlay Legend

T & E Waters

Federal

State

Predicted Habitat WAP Tier I & II

Aquatic

Terrestrial

Trout Waters

Class I - IV

Class V - VI

Anadromous Fish Reach

Confirmed

Potential

Impediment

Position Rings 1 mile and 1/4 mile at the Search Point

2 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

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 2024-03-12 12:31:18 (qa/qc March 21, 2016 12:20 - tn=1820580.0 dist=3218 I)
$poi=38.7991290 -77.1447968

VaFWIS Search Report Compiled on 3/12/2024, 12:30:44 PM

Help

Known or likely to occur within a **2 mile radius around point 38.7991290 -77.1447968** in **059 Fairfax County, 510 Alexandria City, VA**

View Map of Site Location

716 Known or Likely Species ordered by Status Concern for Conservation (displaying first 33) (33 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus	Yes	BOVA,SppObs,HU6
060006	SE	Ib	Floater, brook	Alasmidonta varicosa		BOVA
030062	ST	Ia	Turtle, wood	Glyptemys insculpta		BOVA,HU6
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
040379	ST	Ia	Sparrow, Henslow's	Centronyx henslowii		BOVA
100155	ST	Ia	Skipper, Appalachian grizzled	Pyrgus wyandot		BOVA,HU6
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA,HU6
030063	CC	IIIa	Turtle, spotted	Clemmys guttata	Yes	BOVA,SppObs,HU6
030012	CC	IVa	Rattlesnake, timber	Crotalus horridus		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA,HU6
040040		Ia	Ibis, glossy	Plegadis falcinellus		BOVA,HU6
040306		Ia	Warbler, golden-winged	Vermivora chrysoptera		BOVA
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA,HU6
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA,HU6
070027		Ic	Amphipod, Northern Virginia well	Stygobromus phreaticus		HU6
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6
040033		IIa	Egret, snowy	Egretta thula		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA

040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea	Potential	BOVA,BBA
040181		IIa	Tern, common	Sterna hirundo		BOVA,HU6
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor	Potential	BOVA,BBA,HU6
060071		IIa	Lampmussel, yellow	Lampsilis cariosa		BOVA
040203		IIb	Cuckoo, black-billed	Coccyzus erythropthalmus		BOVA
040105		IIb	Rail, king	Rallus elegans	Potential	BOVA,BBA,HU6
040304		IIc	Warbler, Swainson's	Limnothlypis swainsonii		BOVA,HU6
100154		IIc	Butterfly, Persius duskywing	Erynnis persius persius		BOVA,HU6

To view **All 716 species** View 716

*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

N/A

Impediments to Fish Passage (2 records)

View Map of All Fish Impediments

ID	Name	River	View Map
1181	KINGSTOWNE LAKE DAM	DOGUE CREEK	Yes
1167	LEHIGH DAM	INDIAN RUN	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Species Observations

(49 records - displaying first 20 , 2 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**	
628824	SppObs	Jun 7 2016	; Theresa Wetzel; Will Seiter	2	FPSE	I	Yes
364811	SppObs	Jan 1 1900		2	CC	III	Yes
425282	SppObs	Aug 16 2000	VCU - INSTAR	8		III	Yes
333682	SppObs	Jan 1 1970	DPK-B-KELSO	10		III	Yes
333681	SppObs	Jan 1 1970	DPK-B-KELSO	7		III	Yes
364909	SppObs	Jan 1 1900		1		III	Yes
425284	SppObs	Jun 11 1999	VCU - INSTAR	17		IV	Yes
628827	SppObs	Jun 9 2016	; Theresa Wetzel; Will Seiter	1			Yes
628826	SppObs	Jun 8 2016	; Theresa Wetzel; Will Seiter	1			Yes
628825	SppObs	Jun 7 2016	Theresa Wetzel; Will Seiter	1			Yes

Name	Agency	Level
Cameron Station Military Reservation	U.S. Dept. of Army	Federal

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
059	Fairfax	559	FESE	I
510	Alexandria City	475	FESE	I

USGS 7.5' Quadrangles:
Annandale
Alexandria

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
PL26	Cameron Run	69	ST	I
PL27	Dogue Creek	77	ST	I
PL30	Accotink Creek	81	FPSE	I

Compiled on 3/12/2024, 12:30:44 PM I1820580.0 report=all searchType= R dist= 3218 poi= 38.7991290 -77.1447968

PixelSize=64; Anadromous=0.01835; BBA=0.035955; BECAR=0.018187; Bats=0.017776; Buffer=0.064207; County=0.055124; HU6=0.0443; Impediments=0.018657; Init=0.098343; PublicLands=0.024659; Quad=0.027708; SppObs=0.229509; TEWaters=0.020687; TierReaches=0.025794; TierTerrestrial=0.025959; Total=0.950203; Tracking_BOVA=0.243359; Trout=0.018939; huva=0.023198

Species Observations where Turtle, spotted (030063) observed 364811

38,47,56.8 -77,08,41.2 is **the Search Point**

Display	**Item Location** is
at center	not at map center

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

Show Search Area
(•) Yes ( ) No
2 Search distance miles radius

Search Point is at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Position, Search, Observation

Map Overlay Legend

Position Rings 1 mile and 1/4 mile at the Search Point

2 mile radius Search Area

Data Observation Site

Map Click 38,47,50.8 -77,07,29.3 Pan Id M

Refresh Browser Page

Map Scale In Zoom Out

Screen Size Small Size Big

Help

Point of Search 38,47,56.8 -77,08,41.2
Map Location 38,47,56.8 -77,08,41.2

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: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 308948 and top 4301469. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5

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 2024-03-19 10:05:52 (qa/qc March 21, 2016 12:20 - tn=1973478.1 dist=3218.688 I)
$poi=38.7991111 -77.1447778$query=select xy.x,xy.y, xxvy256.Displace_X, xxvy256.Displace_Y, cc.High_TE, obs.FeatType from vafwis_tables.dbo.vcvSppObs_XY xy join vafwis_tables.dbo.cvSppObs obs on obs.obsID = xy.obsID join vafwis_tables.dbo.cvSppObsSite256 s256 on s256.obsID = xy.obsID join vafwis_tables.dbo.cvSppObsSitexxvy256 xxvy256 on xxvy256.obsSite256 = s256.obsSite256 join vafwis_tables.dbo.cvSppObs_CC cc on cc.obsID = xy.obsID JOIN vafwis_tables.dbo.udf_List2Table('364811',',') list on list.item = obs.obsID

Species Observations where Bat, tri-colored (050027) observed 628824

38,47,56.8 -77,08,41.2 is **the Search Point**

Display	**Item Location** is
at center	not at map center

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

Show Search Area
(•) Yes ( ) No
2 Search distance miles radius

Search Point is at map center

Base Map Choices
Topography

Map Overlay Choices
Current List: Position, Search, Observation

Map Overlay Legend

Position Rings 1 mile and 1/4 mile at the Search Point

2 mile radius Search Area

Data Observation Site

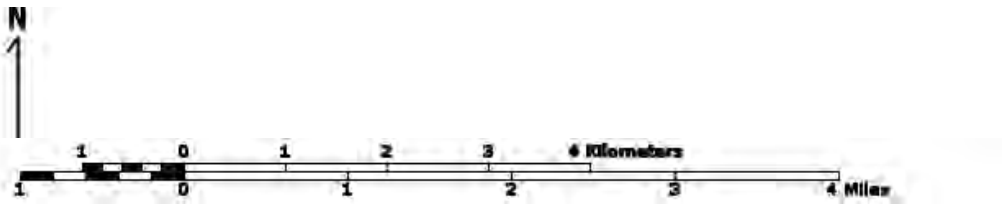
Map Click 38,48,20.3 -77,09,28.9 Pan Id M

Refresh Browser Page

Map Scale In Zoom Out

Screen Size Small Size Big

Help



Point of Search 38,47,56.8 -77,08,41.2
Map Location 38,47,56.8 -77,08,41.2

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: USGS 1:100,000 topographic maps (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 308948 and top 4301469. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5

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 2024-03-19 10:05:32 (qa/qc March 21, 2016 12:20 - tn=1973478.1 dist=3218.688 I)
$poi=38.7991111 -77.1447778$query=select xy.x,xy.y, xxvy256.Displace_X, xxvy256.Displace_Y, cc.High_TE, obs.FeatType from vafwis_tables.dbo.vcvSppObs_XY xy join vafwis_tables.dbo.cvSppObs obs on obs.obsID = xy.obsID join vafwis_tables.dbo.cvSppObsSite256 s256 on s256.obsID = xy.obsID join vafwis_tables.dbo.cvSppObsSitexxvy256 xxvy256 on xxvy256.obsSite256 = s256.obsSite256 join vafwis_tables.dbo.cvSppObs_CC cc on cc.obsID = xy.obsID JOIN vafwis_tables.dbo.udf_List2Table('628824',',') list on list.item = obs.obsID

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482
www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

February 27, 2024

Dominion Energy
120 Tredegar Street
Richmond, VA 23219
Attn: Elizabeth L. Hester

Transmitted Via Email: (Elizabeth.l.hester@dominionenergy.com)

Re: Dominion Energy (Electric Transmission) - AS&S - Program Renewal – 2024/2025

Dear Ms. Hester:

The Virginia Department of Environmental Quality (DEQ) hereby approves the Annual Standards and Specifications for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Electric Transmission Facilities for Dominion Energy's document dated "February 2024". This coverage is effective from February 27, 2024, to February 26, 2025.

To ensure compliance with approved specifications, the Virginia Erosion and Sediment Control Law and the Virginia Stormwater Management Act, DEQ staff will conduct random site inspections, respond to complaints, and provide on-site technical assistance with specific erosion and sediment control and stormwater management measures and plan implementation.

Please note that your approved Annual Standards and Specifications include the following requirements:

1. Variance, exception, and deviation requests must be submitted to DEQ separately from this Annual Standards and Specifications' submission. DEQ may require project-specific plans associated with such requests to be submitted for review and approval.

2. The following information must be submitted to DEQ for each project at least two weeks in advance of the commencement of regulated land-disturbing activities. Notifications shall be sent by email to: StandardsandSpecs@deq.virginia.gov
    a. Project name or project number;
    b. Project location (including nearest intersection, latitude and longitude, access point);
    c. On-site project manager name and contact info;

d. Responsible Land Disturber (RLD) name and contact info;
e. Project description;
f. Acreage of disturbance for project;
g. Project start and finish date; and
h. Any variances/exceptions/deviations associated with this project.

3. Project tracking of all regulated land disturbing activities (LDA) must be submitted to DEQ once per 6-month period. Project tracking records shall contain the same information as required in the two week e-notifications for each regulated LDA.

4. Erosion & Sediment Control and Stormwater Management plans must be reviewed by DEQ-certified Plan Reviewers. Dominion Energy, as the AS&S holder, retains the authority to approve plans and must do so in writing. Should an AS&S holder contract out to a third-party to fulfill the plan review function, the third-party Plan Reviewer may recommend approval of the plan, but final approval must come from the AS&S holder.

To ensure an efficient information exchange and response to inquiries, DEQ Central Office is your primary point of contact. Central Office staff will coordinate with our Regional Office staff as appropriate

Please contact Abigail Snider at 804-486-0365 or Abigail.Snider@deq.virginia.gov if you have any questions about this letter.

Respectfully,

Kyle Kennedy, Manager
Office of Stormwater Management

Cc: Larry Gavan, DEQ-CO
Antony Angueira, DEQ-CO

REDACTED

PRE-APPLICATION ANALYSIS OF CULTURAL RESOURCES

230 kV Edsall Lines and Substation Project
Fairfax County, VA

JULY 25, 2024

Dewberry

SUBMITTED BY
Dewberry Engineers Inc.
600 Parsippany Road, Suite 301
Parsippany, NJ 07054

PREPARED FOR
Dominion Energy
c/o Matt Cunningham
5000 Dominion Boulevard
Glen Allen, VA 23060

Pre-Application Analysis of Cultural Resources

230 kV Edsall Lines and Substation Project
Fairfax County, Virginia

REDACTED

Prepared By:
Michael Navarro, RPA,
Tessa Nesta, Architectural Historian
and
Zachary Davis, RPA

Prepared For:
Virginia Electric and Power Company

Submitted By:
Dewberry Engineers Inc.

July 25, 2024

ABSTRACT

This report presents the findings of the Stage 1 Pre-Application Analysis of Cultural Resources (Pre-Application Analysis) for Virginia Electric and Power Company's (Dominion Energy Virginia, Dominion, or the Company) proposed 230 kilovolt (kV) Edsall Lines and Substation Project in Fairfax County, Virginia (230 kV Edsall Lines and Substation Project or the Project). For this Project, the Company proposes to:

- Extend the Company's existing overhead single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from Van Dorn Substation to the proposed 230-34.5 Edsall Substation, resulting in (i) 230 kV Edsall-Hayfield Line #210 and (ii) 230 kV Edsall-Ox Line #243 (collectively, the Edsall Lines); and
- Construct a new 230-34.5 kV substation in Fairfax County, Virginia, on property to be obtained by the Company (Edsall Substation).

For the Edsall Lines, the Company identified three overhead route alternatives (Routes 1, 2, and 3, or, collectively, the route alternatives) for analysis in the Environmental Routing Study that will be attached to the Virginia State Corporation Commission (SCC) application for the Project.

This report assesses and compares potential impacts on previously recorded historic and archaeological resources in relation to Routes 1, 2, and 3 for the Edsall Lines. Impacts from the Edsall Substation are also considered, although they would be the same for all of the route alternatives. Dewberry Engineers Inc. (Dewberry) conducted the Pre-Application Analysis on behalf of Dominion Energy Virginia to assist in the development of a feasible Project route that minimizes impacts to cultural and historic resources. The Pre-Application Analysis is a required study for transmission line projects regulated by the SCC. The analysis was conducted in accordance with the Virginia Department of Historic Resources' (VDHR) guidance titled *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (VDHR 2008) (*Guidelines*) and, the SCC's Division of Public Utility Regulation *Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia* (Commonwealth of Virginia 2017).

Twenty-two known archaeological sites are located within one mile of Routes 1, 2, or 3 and/or the substation boundary. None of these sites are located within the rights-of-way of the route alternatives and no sites are located within 50 feet of the rights-of-way of the route alternatives. In total, one of the 22 sites within one mile of the considered route alternatives has been determined eligible for listing in the National Register of Historic Places (NRHP). The remaining 21 sites within one mile of the route alternatives are unevaluated for inclusion in the NRHP. No archaeological survey was conducted as part of this effort. The route alternatives should be assessed for existing conditions and impacts to potentially unknown archaeological sites as design details are advanced.

There are 105 previously recorded architectural resources that fall within 1.5 miles of the route alternatives and/or the substation boundary. No National Historic Landmarks (NHLs) are located within 1.5 miles of the route alternatives. Background research identified no historic properties listed in the NRHP, no battlefields, and no historic landscapes within 1.0 mile of the route alternatives. One NRHP-eligible property was identified within 0.5 mile of the route alternatives. Therefore, one resource meeting criteria specified in the *Guidelines* was considered for this analysis: the NRHP-eligible Richmond, Fredericksburg, and Potomac Railroad Historic District (VDHR ID 500-0001) (RF&PHD), which overlaps part of the route alternatives.

Field inspection found that the new transmission lines and structures for the route alternatives would intersect with and be visible from the RF&PHD. Existing transmission lines cross the RF&PHD at two places within sight of the Routes 1, 2, and 3 proposed crossings. Also, several distribution lines parallel the RF&PHD; both power distribution lines and distribution poles are visible from the historic district. In addition, the surrounding industrial landscape largely post-dates the RF&PHD period of significance, including elements such as the Virginia Department of Transportation (VDOT) road maintenance property,

Washington Metropolitan Area Transit Authority (WMATA) electrified metro-tracks, the Capital Beltway crossing, and industrial warehouses, all of which are visible from the RF&PHD. As such, it is anticipated that the impacts of the Project on the RF&PHD will be consistent and in character with its current viewshed. Therefore, the Project will have ***minimal impact*** on the viewshed of the RF&PHD.

Abstract Table. Viewshed Impacts to Architectural Resources

VDHR ID#	Resource Name	NRHP Status	Distance to Project	Viewshed Impact
500-0001	Richmond, Fredericksburg, and Potomac Railroad Historic District	Eligible	0.0 mile	Minimal

TABLE OF CONTENTS


LIST OF FIGURES

LIST OF PHOTOGRAPHS

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS

ABPP	American Battlefield Protection Program
ACL	Atlantic Coast Line Railroad
BO	Baltimore and Ohio Railroad
CMOS	Complementary Metal Oxide Semiconductor
Code	Code of Virginia
CFR	Code of Federal Regulations
Company	Virginia Electric and Power Company
Dewberry	Dewberry Engineers Inc.
Dominion Energy Virginia	Virginia Electric and Power Company
Dominion	Virginia Electric and Power Company
FR	Federal Register
GIS	Geographic Information System
GPS	Global Positioning System
Guidelines	VDHR's 2008 Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia
kV	Kilovolt
NERC	North American Electric Reliability Corporation
NHL	National Historic Landmark
NHPA	National Historic Preservation Act

NPS	National Park Service
NRHP	National Register of Historic Places
PBR	Physically Based Rendering
Project	230 kV Edsall Lines and Substation Project
Project Team	Dominion Energy Virginia project team, including Dewberry
PRR	Pennsylvania Railroad
RF&P	Richmond, Fredericksburg, and Potomac Railroad
RF&PHD	Richmond, Fredericksburg, and Potomac Railroad Historic District
SCC	State Corporation Commission
SAL	Seaboard Air Line Railroad
SLR	Single-Lens Reflex Camera
SP	Simulation Points
VCRIS	Virginia Cultural Resources Information Service
VDHR	Virginia Department of Historic Resources
VDOT	Virginia Department of Transportation
VPRA	Virginia Passenger Rail Authority
WMATA	Washington Metropolitan Area Transit Authority

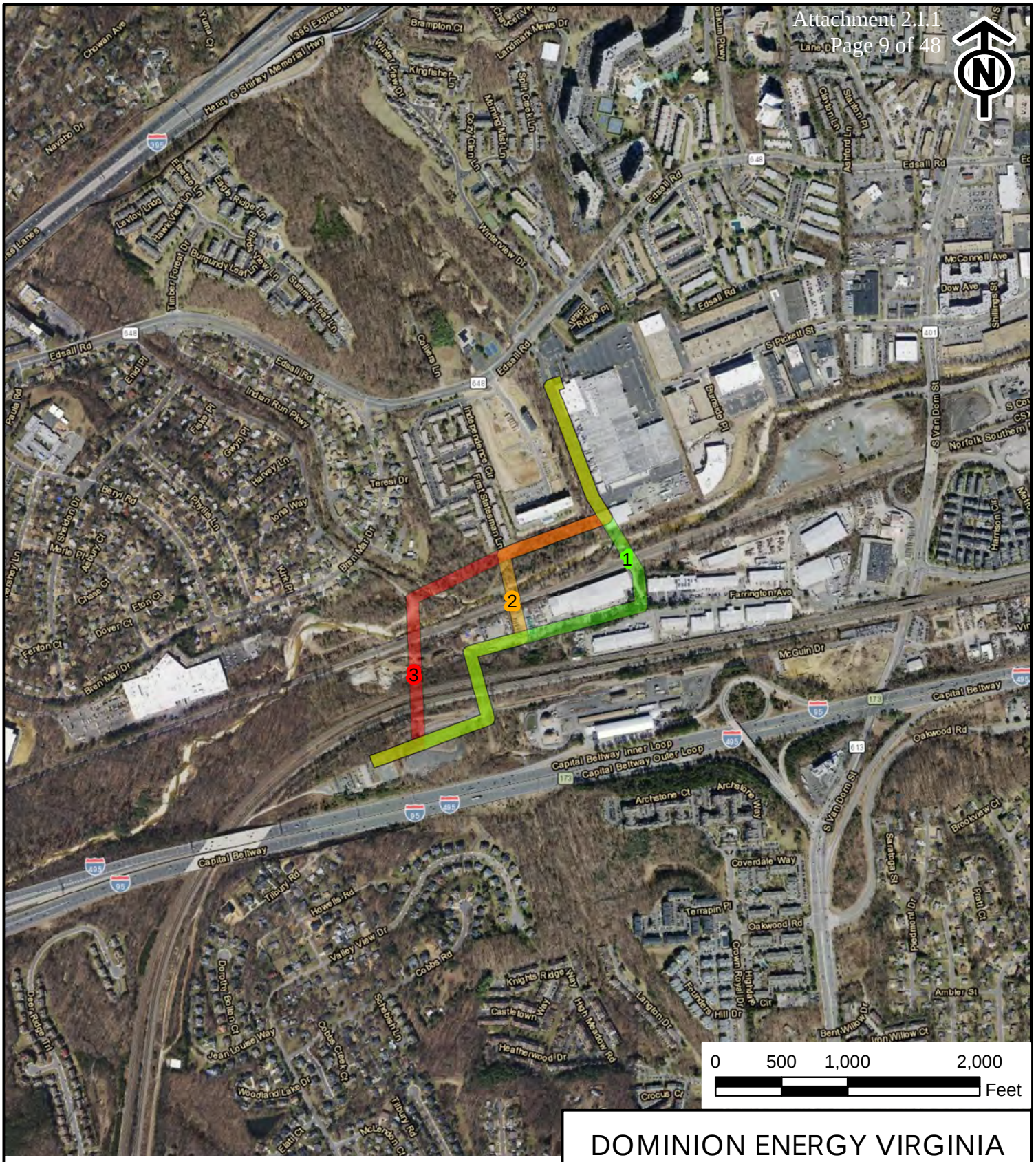
1.0 INTRODUCTION

In January 2024, Dewberry Engineers Inc. (Dewberry) on behalf of Virginia Electric and Power Company (Dominion Energy Virginia, Dominion, or the Company) conducted a Stage 1 Pre-Application Analysis of Cultural Resources (Pre-Application Analysis) for the proposed 230 kV Edsall Lines and Substation Project (230 kV Edsall Lines and Substation Project or the Project) in Fairfax County, Virginia. This Project consists of the following proposed facilities, which are designed to a) ensure that Dominion Energy Virginia can provide service requested by a data center customer (the Customer), b) maintain reliable service for the overall load growth in the area; and c) comply with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards:

- Extend the Company's existing overhead single circuit Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243 from Van Dorn Substation to the proposed 230-34.5 kV Edsall Substation, resulting in (i) 230 kV Edsall-Hayfield Line #210 and (ii) 230 kV Edsall-Ox Line #243 (collectively, the Edsall Lines); and
- Construct a new 230-34.5 kV substation in Fairfax County, Virginia, on property to be obtained by the Company (Edsall Substation).

For the Edsall Lines, the Company identified three overhead route alternatives (Routes 1, 2, and 3, or, collectively, the route alternatives) for analysis in the Environmental Routing Study that will be attached to the Virginia State Corporation Commission (SCC) application for the Project. The route alternatives are described in Chapter 2 below. **Figure 1** shows an overview of the route alternatives.

The Pre-Application Analysis assesses potential impacts on previously recorded historic and archaeological resources relative to the route alternatives and substation. Dewberry conducted the Pre-Application Analysis on behalf of Dominion Energy Virginia to assist in the development of a feasible Project design that minimizes impacts on cultural and historic resources. The study was completed in accordance with the Virginia Department of Historic Resources' (VDHR) guidance titled *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (VDHR 2008) (*Guidelines*); and, the SCC's Division of Public Utility Regulation *Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia* (Commonwealth of Virginia 2017).



LEGEND

- Route 1
- Route 2
- Route 3

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Virginia Geographic Information Network (VGIN)

DOMINION ENERGY VIRGINIA

OVERVIEW OF THE ROUTE ALTERNATIVES FOR THE EDSALL LINES

Pre-Application Analysis of Cultural Resources
230 kV Edsall Lines and Substation Project
Fairfax County, Virginia

SCALE: 1" = 1000'

DATE: July 2024

Dewberry

FIGURE 1

Path: Q:\50163603\GIS\Mxd\Final_Page_Turn_MXDs\1_OverviewoftheRouteAlternatives_EdsallSCCPreAppAnalysis_FairfaxCountyVA.mxd

2.0 OVERVIEW AND PROJECT DESCRIPTION

For this Project, Dominion Energy Virginia retained the services of Dewberry to help collect information within the study area, identify potential routes, perform a routing analysis comparing the route alternatives, and document the routing efforts in an Environmental Routing Study. The Company considered the facilities required to construct and operate the new feeds; the length of new rights-of-way that will be required; the amount of existing development in each area; the potential for environmental impacts on communities; and the relative cost of each option. After a review of the new build options that could address the power needs of a new proposed data center development to be constructed along Edsall Road in Fairfax County, Virginia, the Company identified one electrical option for the Edsall Lines, which is located entirely in Fairfax County, Virginia. This electrical option requires a new substation located along Edsall Road (Edsall Substation) that will be sourced by extending two existing overhead 230 kV single circuit transmission lines (existing Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243) on shared structures within a new 100-foot-wide right-of-way from the existing Van Dorn Substation located near McGuin Drive, resulting in (i) 230 kV Edsall-Hayfield Line #210 and (ii) 230 kV Edsall-Ox Line #243.

Within the identified Project study area, Dewberry initially identified and assessed seven route alternatives for the proposed new transmission lines required by the Project. Of the seven alternatives, four were rejected early in the process without further study and three alternatives were further evaluated for consideration as potential route alternatives (Routes 1, 2, and 3). See **Figure 1** for an overview of the route alternatives considered. The route alternatives would utilize new 100-foot-wide right-of-way between the Company's existing Van Dorn Substation located off McGuin Drive and the proposed Edsall Substation. All route alternatives include two new 230 kV overhead single circuit transmission lines supported by double circuit monopoles. See **Figure 2** for an overview of the structures.

2.1 Route 1

Route 1 originates within the eastern side of the Company's existing Van Dorn Substation. After exiting the substation property, the route continues east for approximately 925 feet and then turns north for approximately 500 feet, crossing the Washington Metropolitan Area Transit Authority (WMATA) Blue Line and the Virginia Passenger Rail Authority (VPRA) Richmond Fredericksburg and Potomac rail corridors. The route then turns east and continues through the Farrington Avenue industrial complex for approximately 1,350 feet before turning north between two industrial buildings. The Proposed Route 1 continues north for approximately 700 feet, crossing over the Norfolk Southern rail line and Backlick Run. At this point, the route enters into the Customer's data center campus and continues north just east of Turkeycock Run for a distance of 1,100 feet where it turns eastward and terminates at the proposed Edsall Substation in the northwestern corner of the existing Plaza 500 commercial center.

2.2 Route 2

Route 2 originates within the eastern side of the Company's existing Van Dorn Substation. After exiting the substation property, the route follows the Route 1 alignment, continuing east for approximately 500 feet, crossing the WMATA Blue Line and the VPRA Richmond Fredericksburg and Potomac rail corridors. Route 2 then continues northward another approximately 650 feet, crossing the Norfolk Southern rail corridor and Backlick Run at an approximately perpendicular angle. Route 2 then turns eastward directly south of the end of First Statesman Lane and travels parallel to Backlick Run approximately 800 feet within Backlick Run Park before crossing Turkeycock Run. The route then turns northward continuing approximately 1,050 feet parallel to Turkeycock Run to the location of the proposed Edsall Substation in the northwestern corner of the existing Plaza 500 complex commercial center that abuts Edsall Road.

2.3 Route 3

Route 3 begins at the northeastern corner of the Van Dorn Substation and runs approximately 325 feet eastward before turning northeast for approximately 1,150 feet, crossing the WMATA Blue Line and the VPRA Richmond Fredericksburg and Potomac rail corridors as well as the Norfolk Southern rail corridor and Backlick Run at a near-perpendicular angle. Route 3 then turns eastward at the confluence of Holmes Run and Backlick Run and travels parallel to Backlick Run approximately 1,600 feet within Backlick Stream Valley Park and Backlick Run Park before crossing Turkeycock Run. The route then turns northward continuing approximately 800 feet parallel to Turkeycock Run to the location of the proposed Edsall Substation in the northwestern corner of the existing Plaza 500 complex commercial center that abuts Edsall Road.

2.4 Management Recommendations

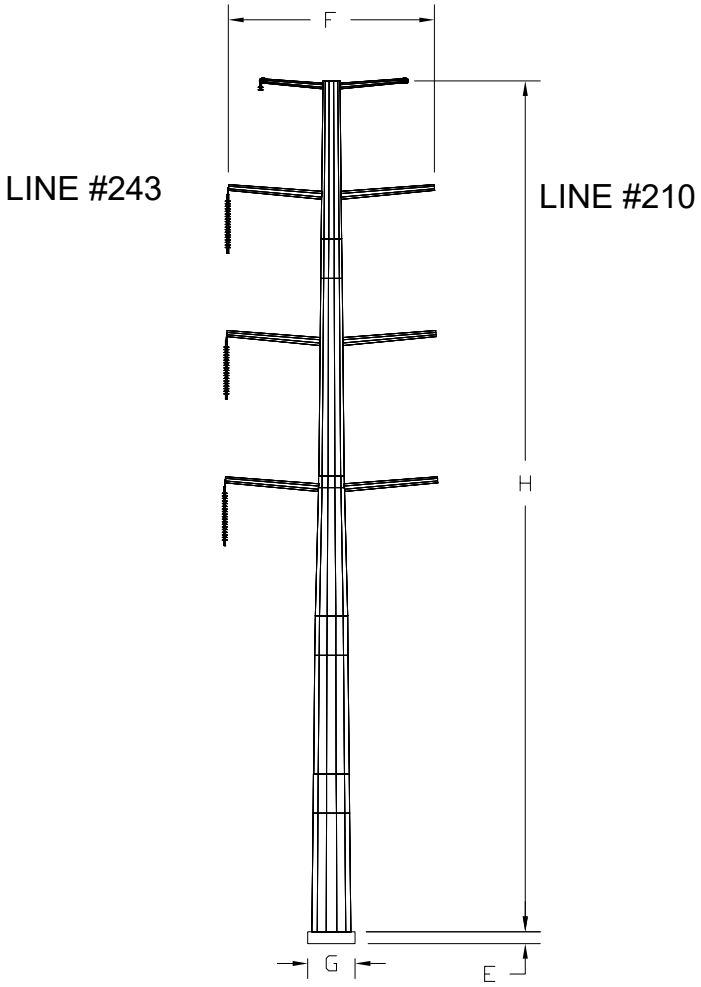
Twenty-two known archaeological sites were located within one mile of Routes 1, 2, or 3 and/or the substation boundary. None of these sites are located within the rights-of-way of the route alternatives and no sites are located within 50 feet of the rights-of-way of the route alternatives. In total, one of the 22 sites within one mile of the considered route alternatives has been determined to be eligible for listing in the NRHP. The remaining 21 sites within one mile of the route alternatives are unevaluated for inclusion in the NRHP. No archaeological survey was conducted as part of this effort. The route alternatives should be assessed for existing conditions and impacts to potentially unknown archaeological sites as design details are advanced. No archaeological sites recorded in VDHR Virginia Cultural Resource Information System (VCRIS) at the date of publication will be impacted by the Project.

There are 105 previously recorded architectural resources that fall within 1.5 miles of the route alternatives. No National Historic Landmarks (NHLs) are located within 1.5 miles of the route alternatives. Background research identified no historic properties listed in the NRHP, no battlefields, and no historic landscapes within 1.0 mile of the route alternatives. One NRHP-eligible property was identified within 0.5 mile of the route alternatives. Therefore, one resource meeting criteria specified in the *Guidelines* was considered for this analysis: the NRHP-eligible Richmond, Fredericksburg, and Potomac Railroad Historic District (VDHR ID 500-0001) (RF&PHD), which overlaps part of the route alternatives. Dewberry recommends that Routes 1, 2, and 3 would have a minimal impact on the RF&PHD. More information about each resource and the nature of potential impacts from the proposed Project can be found in the chapters that follow.

STRUCTURE DETAILS

FIGURE **2**

EDSALL - HAYFIELD LINE #210
EDSALL - OX LINE #243



230 kV DC ENGINEERED MONOPOLE DDE STRUCTURE

A. MAPPING OF THE ROUTE: SEE ATTACHMENT II.B.3.b

B. RATIONALE FOR STRUCTURE TYPE: STANDARD STRUCTURE TYPE FOR DC 230 kV LINES

C. LENGTH OF R/W (STRUCTURE QTY): 0.90 MILE (8 STRUCTURES)

D. STRUCTURE MATERIAL: GALVANIZED STEEL
RATIONALE FOR MATERIAL: TO MATCH OTHER LINES IN THE AREA

E. FOUNDATION MATERIAL: CONCRETE
AVERAGE FOUNDATION REVEAL: SEE NOTE 2

F. AVERAGE WIDTH AT CROSS ARM: 26'

G. AVERAGE WIDTH AT BASE: SEE NOTE 2

H. MINIMUM STRUCTURE HEIGHT: 100'
MAXIMUM STRUCTURE HEIGHT: 150'
AVERAGE STRUCTURE HEIGHT: 125'

I. AVERAGE SPAN LENGTH (RANGE): 575' (299'-943') (SEE NOTE 4)

J. MINIMUM CONDUCTOR-TO-GROUND: 22.5' (AT MAXIMUM OPERATING TEMPERATURE)

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

3.0 RESEARCH DESIGN

This analysis included tabulation of previously surveyed historic properties within the vicinity of the Project and application of the criteria of adverse effect resulting from each route (36 CFR § 800.5). Historic properties include architectural and archaeological (terrestrial and underwater) resources, historic and cultural landscapes, battlefields, and historic districts. VDHR documentation and recent aerial photography were reviewed, and a field reconnaissance was conducted for each previously recorded historic property. The field reconnaissance assessed a property's integrity of feeling, setting, and association, and provided photo documentation of the property including views toward the route alternatives. This Pre-Application Analysis is not intended as a substitute for comprehensive historic resources survey. Full archaeological and architectural surveys may be recommended for the approved route, as necessary.

3.1 Background Research

In January 2024, Dewberry conducted background research to identify previously recorded historic properties and historic properties included in historic documents and archives. Background research conducted for this analysis involved review of the VDHR VCRIS GIS database, designed to identify previously recorded National Historic Landmarks (NHLs) located within 1.5 miles of the route alternatives, historic properties listed in the National Register of Historic Places (NRHP), battlefields, or historic landscapes located within 1.0 mile of the route alternatives, historic properties eligible for listing in the NRHP located within 0.5 mile of the route alternatives, and archaeological sites located directly within or adjacent to the route alternatives. Dewberry also reviewed the National Park Service (NPS), American Battlefield Protection Program (ABPP) maps and related documentation (NPS 2009; VDHR 2024). Historic properties include architectural and archaeological (terrestrial and underwater) resources, historic and cultural landscapes, battlefields, and historic districts. For each historic property within the defined tiers, a review of existing documentation and a field reconnaissance was undertaken to confirm each property's significant character-defining features, as well as the character of its current setting. Following confirmation of historic properties, Dewberry assessed the potential for Project impacts to identified resources. Specific attention was given to determining if construction related to the Project might introduce new visual elements to the resource's viewshed or directly impact the resource through construction, either directly or indirectly altering those qualities or characteristics that qualify the historic resource for listing in the NRHP. All data collection was performed according to the *Guidelines* (VDHR 2008). Dewberry located historic properties within the defined study tiers in a GIS database to facilitate inclusion in this Pre-Application Analysis report.

3.2 Field Reconnaissance

Field reconnaissance included visual inspection of the proposed Project study area with the intention of verifying the historic properties within the search parameters specified above. Field inspection included digital photo documentation of an identified resource's existing conditions including its main elevation, setting, and views toward and from the route alternatives. Photographs were taken from publicly accessible locations. No reconnaissance-level or subsurface archaeological testing was conducted as part of this effort.

3.3 Assessment of Potential Impacts

Following identification and field reconnaissance of historic resources, each resource was assessed for potential impacts from Project activities. Dewberry's project GIS database provided digital orthophotos of the Project location along with a photo key providing the location of photographed historic properties. The GIS database also included the boundaries of the historic resource and a depiction of the proposed Project limits. In addition, photo-simulations of proposed transmission structures provided by Dominion were examined in order to evaluate views of both existing and proposed conditions.

Dewberry examined each identified historic resource for its qualities and characteristics qualifying the resource for listing in the NRHP and if the route alternatives may potentially alter or diminish the integrity of the resource and its associated significance. The photo-simulations provide the viewshed of the proposed Project's potential intrusion into a historic resource's setting and if those visual intrusions would

directly or indirectly alter those qualities or characteristics qualifying the historic resource for listing in the NRHP. Identified impacts were characterized as:

- **None** – Project is not visible from the resource.
- **Minimal** – Viewsheds have existing transmission lines, there would be only a minor change in height, and/or other views are partially obscured by topography or vegetation.
- **Moderate** – Viewsheds have more expansive views of the transmission line, more dramatic changes in height are proposed, and/or the overall visibility of the Project would be greater.
- **Severe** – Existing viewshed contains no transmission line, the view to the Project would be relatively unobstructed, the new transmission line would introduce a significant change to the setting of historic properties, and/or a dramatic change in the height of an existing transmission line would take place in close proximity to historic properties.

3.4 Report Preparation

This report synthesizes and summarizes the results of the background research, field reconnaissance, and analysis and provides a discussion of archaeological sites/zones and architectural resources located within the rights-of-way of the route alternatives. In addition, the report includes information on previously conducted cultural resource investigations, NRHP-eligibility determinations, preservation or open space easements, and potential impacts of the Project.

4.0 PREVIOUS CULTURAL RESOURCE SURVEYS AND KNOWN CULTURAL RESOURCES

This chapter summarizes previously known and recorded cultural resources within the tiered study area buffers as defined in the *Guidelines* (VDHR 2008). This includes previously conducted cultural resource surveys, previously recorded archaeological and architectural resources according to VCRIS, and battlefield areas as defined by the NPS ABPP.

4.1 Previously Surveyed Areas

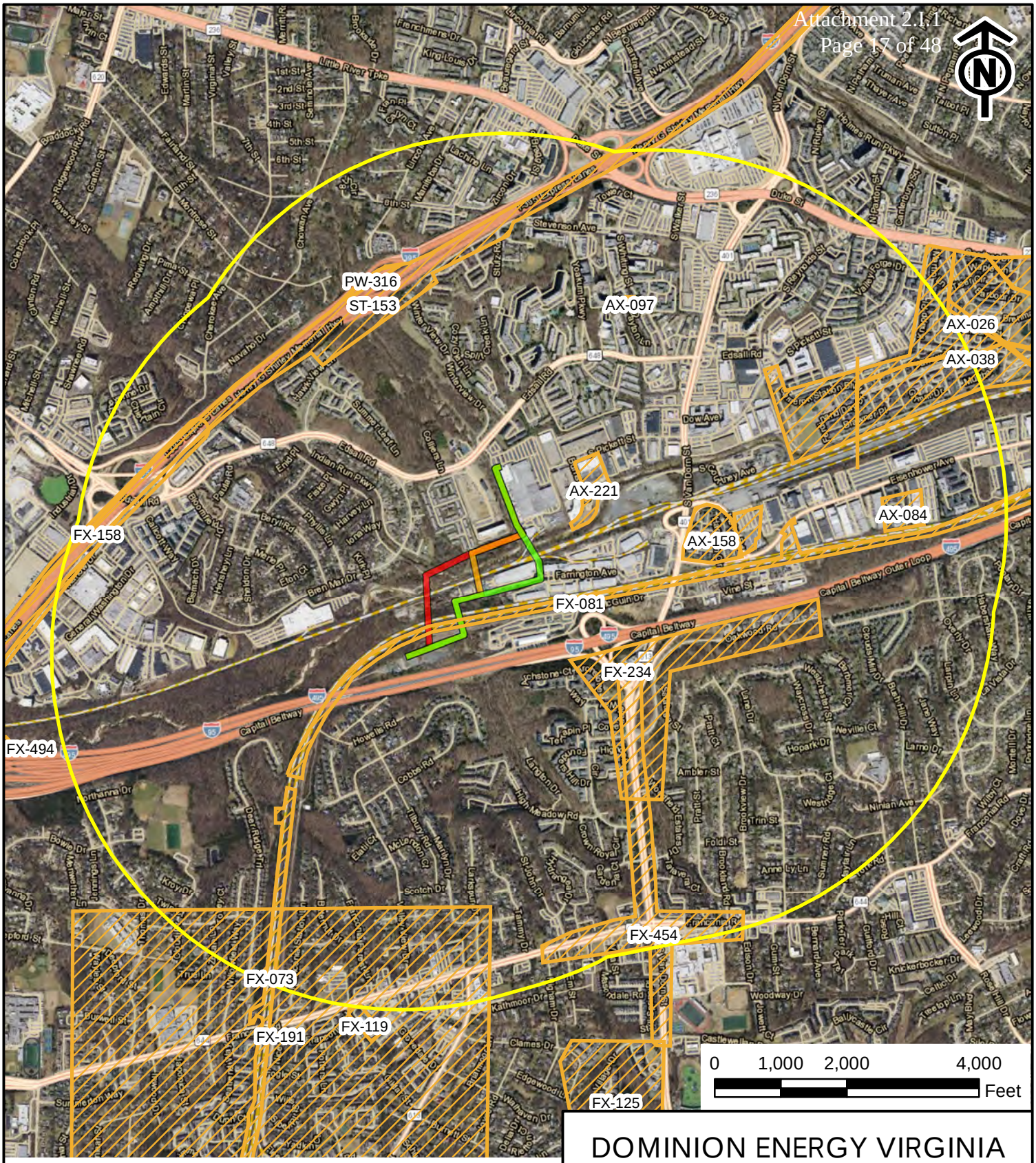
VDHR and VCRIS records indicate 15 prior cultural resource surveys within one mile of the Project; one survey overlaps with the rights-of-way of Routes 1, 2, and 3 (VDHR 2024). All surveys include archaeological investigations, while some also assess for historic architectural resources. The oldest survey was conducted in 1979 and the most recent survey was conducted in 2019. A list of previously conducted surveys within one mile of the proposed Project is included in **Table 1** and illustrated in **Figure 3**.

Table 1: Previously Conducted Cultural Resource Surveys Within One Mile of the Proposed Project.

VDHR ID#	Report Title	Year	Author
AX-026	Phase IB Cultural Resource Survey of the Clermont Avenue Interchange, City of Alexandria, Fairfax County	1991	N/A
AX-038	Cameron Station, Alexandria, Cultural Resource Investigation	1992	Custer
AX-084	Phase I-III Archeological Investigations of 4840 Eisenhower Avenue, Alexandria	2002	Gardner et al.
AX-097	A Phase I Archaeological Survey of Approximately 2 Acres at 325 South Whiting Street, City of Alexandria	2005	O'Donnell & Zawacki
AX-158	Phase I Archeological Investigation of an 11.5 Acre Parcel at the Intersection of Van Dorn and Eisenhower Streets, City of Alexandria	1996	Gardner et al.
AX-221	Documentary Study & Geoarchaeological Investigations, South Pickett Street Properties (880/890 S. Pickett St. & 620 Burnside Place), City of Alexandria	2019	Mullen et al.
FX-073	Phase I Archaeological Investigation of the H-1 Route of the Franconia-Springfield Metrorail Line, Fairfax County	1983	LeeDecker et al.
FX-081*	Phase I Archaeological Investigation of Segment J2 of the Franconia-Springfield Metrorail Line, City of Alexandria and Fairfax County	1983	LeeDecker et al.
FX-119	Archaeological Reconnaissance Survey: Proposed Drive-up Facility and Parking Lot for the Division of Motor Vehicles, Franconia Branch, Franconia	1979	Klein
FX-158	Phase I Cultural Resource Reconnaissance Survey for the Interstate-95 HOV Lane Project, Fairfax and Prince William Counties	1987	Koski-Karell
FX-191	A Phase I Cultural Resource Survey of the Proposed Route 613 Project, Fairfax County	1989	Robinson et al.
FX-234	Phase I Cultural Resources Survey for the South Van Dorn Street/ I-95 Interchange Project, Fairfax County	1993	Stevens & McVarish
FX-454	Phase I Cultural Resource Survey of the South Van Dorn Street-Franconia Road Interchange, Fairfax County	2007	González et al.
PW-316	Third Addendum to the Phase I Archeological Investigations of the I-95/395 HOV/Bus/HOT Lanes Project, Arlington, Fairfax, Prince William and Stafford Counties and the City of Alexandria	2008	Hutson & Mullen

VDHR ID#	Report Title	Year	Author
ST-153	Phase I Archeological Investigations of the I-95/395 HOV/Bus/HOT Lanes Project, Arlington, Fairfax, Prince William and Stafford Counties and the City of Alexandria	2007	Buchanan et al.

* Denotes survey overlaps part of the Project route alternatives.



LEGEND

- One Mile Buffer
- Archaeology Phase 1 Survey
- Route 1
- Route 2
- Route 3

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Virginia Geographic Information Network (VGIN)

DOMINION ENERGY VIRGINIA

PREVIOUS CULTURAL RESOURCE SURVEYS WITHIN ONE MILE OF THE PROPOSED PROJECT

SCC Pre-Application Analysis of Cultural Resources
Edsall 230 kV Transmission Line
Fairfax County and the City of Alexandria, Virginia

SCALE: 1" = 2000' DATE: July 2024

Dewberry

FIGURE 3

Path: Q:\50163603\GIS\Mxd\Final_Page_Turn_MXDs\3_PrevConductedSurveys_EdsallSCCPreAppAnalysis_FairfaxCountyVA.mxd

4.2 Archaeological Sites

Crossings of archaeological sites were considered a constraint in this study due to the potential for an electric transmission line to impact archaeological deposits in these areas (for example, due to transmission structure placement, tree clearing, or heavy equipment traffic within a site). Review of VDHR VCRIS inventory reveals there are 22 previously recorded archaeological sites within one mile of the route alternatives (VDHR 2024). None of these sites are located within the rights-of-way of the route alternatives. No sites are located within 50 feet of the route alternatives. As such, no archaeological sites were considered in the analysis. In total, one of the 22 sites within one mile of the route alternatives has been determined eligible for listing in the NRHP. The remaining 21 sites within one mile of the route alternatives are unevaluated for inclusion in the NRHP.

Table 2 lists previously record archaeological resources within one mile of Routes 1, 2, and 3. The locations of the identified archaeological resources in the vicinity of the Project are depicted in **Figure 4**.

Table 2: Previously Recorded Archaeological Resources in the Vicinity of the Proposed Project.

VDHR ID	Site Type	Time Periods	Evaluation Status
44AX0054	Dwelling, single, Earthworks	Historic/Unknown	Unevaluated
44AX0178	Dwelling, single	Early National Period (1790 -1829), Antebellum Period (1830 - 1860)	Unevaluated
44FX0247	n/a	Woodland (1200 B.C. - 1606 A.D.)	Unevaluated
44FX0397	n/a	Middle Archaic (6500 - 3001 B.C.), Early Woodland (1200 B.C. - 299 A.D.)	Unevaluated
44FX0992	n/a	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Unevaluated
44FX2208	Camp	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century: 4th quarter (1875 - 1899)	Unevaluated
44FX2209	Camp	Late Archaic (3000 - 1201 B.C.)	Unevaluated
44FX2210	Camp	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century: 4th quarter (1875 - 1899), 20th Century: 1st quarter (1900 - 1924)	Unevaluated
44FX2211	Camp, Trash scatter	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 20th Century (1900 - 1999)	Unevaluated
44FX2212	Camp	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Unevaluated
44FX2213	Camp, Trash scatter	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century: 4th quarter (1875 - 1899)	Unevaluated
44FX2214	Camp, Dwelling, single	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century: 4th quarter (1875 - 1899), 20th Century: 1st half (1900 - 1949)	Unevaluated
44FX2384	Camp	n/a	Unevaluated
44FX2679	Railroad bed	19th Century: 3rd quarter (1850 - 1874)	Unevaluated
44FX3210	Trash scatter	18th Century: 4th quarter (1775 - 1799), 19th Century (1800 - 1899)	Unevaluated
44FX3215	Dwelling, single	20th Century: 1st half (1900 - 1949)	Unevaluated
44FX3216	Dwelling, single	Indeterminate, 18th Century: 2nd half (1750 - 1799), 19th Century (1800 - 1899), 20th Century (1900 - 1999)	Unevaluated
44FX3392	Railroad bed	Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916)	NRHP Eligible
44FX3923	Lithic scatter	Pre-Contact	Unevaluated
44FX3924	Camp, temporary, Dwelling, single, Train depot	Pre-Contact, Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	Unevaluated

VDHR ID	Site Type	Time Periods	Evaluation Status
44FX3925	Lithic workshop	Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E)	Unevaluated
44FX3926	Lithic scatter, Railroad, Trash scatter	Pre-Contact, Early National Period (1790 - 1829), Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	Unevaluated

FIGURE 4 REDACTED

4.3 Architectural Resources

The following discussion summarizes the known historic architectural resources in the vicinity of the proposed Project based on VDHR's tiered study model defined in the *Guidelines*. The locations of the considered historical architectural resources in the vicinity of the proposed Project are shown on **Figure 5**.

The resources located within the rights-of-way of the route alternatives may be subject to both direct impacts from placement of the line across the property as well as visual impacts from changes to the viewshed introduced by the new transmission line structures and conductors. Resources in the 0.5-mile tier would not be directly impacted, but are likely to be visually impacted, unless topography, vegetation, or the built environment obscures the view to the transmission line. At a distance of over 0.5 mile, it becomes less likely that a resource would be within line-of-sight of the proposed transmission line. Beyond 1.0 mile, it becomes less likely that a given resource would be within line-of-sight of a transmission line.

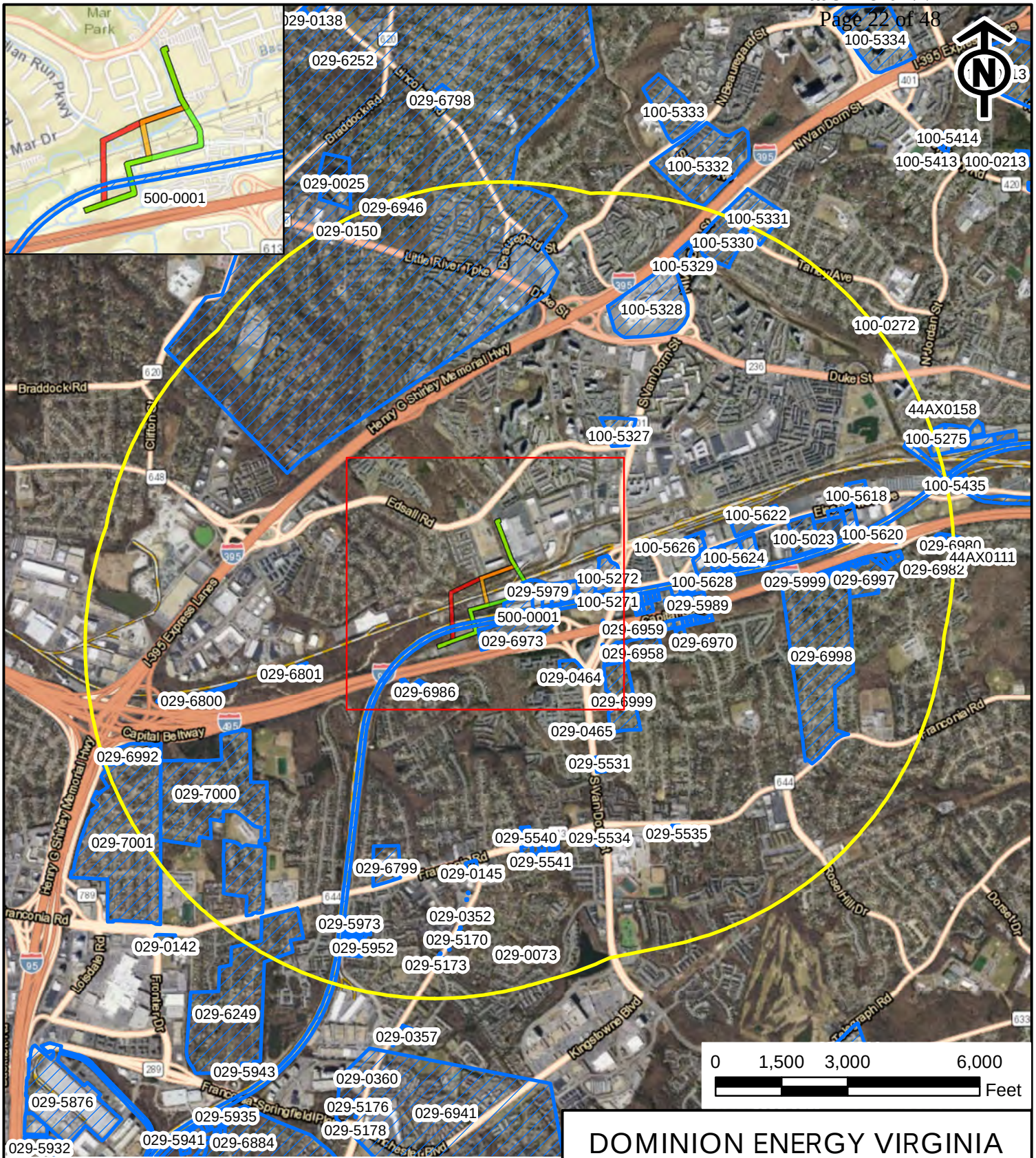
The nature of the impacts to resources, while estimated in this study within the assistance of photo simulations, will depend on the final Project design in which the exact placement and height of transmission structures is determined. Moreover, a complete identification-phase architectural survey would be completed along the route once the Project is approved by the SCC. The survey area for that investigation will be based on the height of the transmission line structures as well as topography, tree cover, and any other factors impacting the line-of-sight from historic resources to the route.

Review of the VDHR VCRIS inventory records revealed a total of 105 previously recorded architectural resources within 1.5 miles of the rights-of-way of Routes 1, 2, and 3 (VDHR 2024). There are no NHLs within 1.5 miles of Routes 1, 2, or 3, and no NRHP-listed resources, battlefields, or historic landscapes within one mile. The review identified one resource determined eligible for listing in the NRHP within 0.5 mile of the Project: the Richmond, Fredericksburg, and Potomac Railroad Historic District (VDHR ID 500-0001) (RF&PHD). Therefore, the only resource considered for this analysis was the RF&PHD, which overlaps part of the route alternatives.

Table 3 lists the NRHP-eligible resource within its respective buffered tier. **Figure 5** shows a map of architectural resources within 1.5 miles of the Project with an inset showing the one considered resource within 1.5 miles of the Project.

Table 3: Historic Resources in VDHR Tiers for the Proposed Project

Buffer (miles)	Considered Resources	VDHR ID	Description
1.5	National Historic Landmarks	None	None
1.0	National Historic Landmarks	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	NRHP-Listed	None	None
0.5	National Historic Landmarks	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	NRHP-Listed	None	None
	NRHP Eligible	500-0001	Richmond, Fredericksburg, and Potomac Railroad Historic District
	VLR-Listed	None	None



LEGEND

- 1.5 Mile Buffer
- Architecture Resources
- Inset Extent
- Route 1
- Route 2
- Route 3

Inset: RF&PHD (DHR ID 500-0001) within Project alignments.

Source: Virginia Geographic Information Network (VGIN) Orthoimagery, 2022

DOMINION ENERGY VIRGINIA

ARCHITECTURAL RESOURCES WITHIN 1.5 MILES

SCC Pre-Application Analysis of Cultural Resources
Edsall 230 kV Transmission Line
Fairfax County and the City of Alexandria, Virginia

SCALE: 1" = 3000' DATE: July 2024

Dewberry

FIGURE **55**

Path: Q:\50163603\GIS\Mxd\Final_Page_Turn_MXDs\4_ArchitecturalSites_EdsallSCCPreAppAnalysis_FairfaxCountyVA.mxd

4.4 American Battlefield Protection Program

A review of the NPS ABPP records and maps prepared by the Civil War Sites Advisory Commission revealed that no portions of ABPP battlefields are located within 1.5 miles of the route alternatives (NPS 2009). As such, no ABPP battlefields were considered in the analysis.

5.0 RESULTS OF FIELD RECONNAISSANCE

In accordance with the *Guidelines* (VDHR 2008), previously recorded historic architectural properties designated as an NHL, or either NRHP-listed or NRHP-eligible properties located within 1.5 miles, one mile, or 0.5 mile of the proposed Project are to be field verified for existing conditions and photo documented. Dewberry inspected and analyzed the setting around the resource and assessed views towards the route alternatives.

5.1 Methods of Analysis

This analysis meets the purpose and intent of VDHR and the SCC's guidance by providing information on the presence of previously recorded NHL properties located within a 1.5-mile buffer area established around the route alternatives, properties listed on the NRHP, battlefields, and historic landscapes located within a one-mile buffer around the route alternatives, properties previously determined eligible for listing in the NRHP located within a 0.5-mile buffer area around the route alternatives, and previously identified archaeological resources directly within or adjacent to the route alternatives. This analysis will not satisfy Section 106 of the National Historic Preservation Act identification and evaluation requirements in the event federal permits or licenses are needed; however, it can be used as a planning document to assist in making decisions under Section 106 as to whether further cultural resource identification efforts may be warranted.

The Dewberry personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). Background research, including historic properties and archaeological site information were collected and spatially located in a GIS database by Dewberry Staff Archaeologist Michael Navarro, RPA. Historic contextual research and impact analyses were performed by Mr. Navarro and Dewberry Architectural Historian Tessa Nesta. Field reconnaissance and photography were performed by Mr. Navarro. Dewberry Cultural Resource Discipline Lead Zachary J. Davis, RPA provided Quality Assurance review of this work.

The fieldwork involved photographing one resource requiring visual assessment according to the *Guidelines* and examining potential line-of-sight views from each resource toward the Project. For resources where property owner approval was granted for historic resource documentation, photographs were taken toward the proposed transmission line from the property at the most prominent view of the landscape. When such permission was not available, photographs were taken from the public right-of-way (typically a road) nearest to the resource facing toward the route and/or substation.

Panoramic photographs were taken from each resource, with an effort to capture the direction with the clearest, most unobstructed view toward the route. The precise location of the photograph was captured with a mobile tablet device connected to a sub-meter accurate Global Navigation Satellite System receiver, the Trimble R1. The locations where photographs were taken were noted as Simulation Points (SPs). Site visits to the SPs were prioritized based on their location relative to the resource, so that viewpoints east of the resource were visited in the morning and viewpoints west of the resource were visited in the afternoon. This helped ensure, where possible, that the sun was behind the photographer at the time the viewpoint photography was captured. Additionally, minor adjustments to position were made to obtain as clear a view to the site center as possible, avoiding trees, landscaping, or built constructions. Tablets recorded the center bearing, angle of view, altitude, and camera lens height. Upon receipt of the viewpoint location information, the viewpoints were plotted onto open source mapping from the Environmental Systems Research Institute using the Universal Transverse Mercator 18N coordinate system.

The process of taking panoramas included setting up the tripod and camera. The camera was placed on the panoramic head in a landscape orientation where its lens height was confirmed and set at 1.5 meters (note: a portrait camera orientation was sometimes used in situations where the viewpoint is very close to a development so that the top of the development is not cut off by the image boundaries). The tripod head and camera combination were then leveled. With the camera's viewfinder centered on the perceived site center, exposure and focus settings were taken. These were then fixed manually on the camera so that they could not be inadvertently altered. The head was rotated 90 degrees to the left where the first frame

of the 350-degree sequence was then taken. Each subsequent frame was taking using a 50 percent overlap of the previous frame until the full 360-degree sequence was captured. The camera was then removed from the tripod and a viewpoint location photograph was captured showing the tripod in its position.

The following camera and tripod configuration was used:

- Camera body: Nikon D800 professional specification digital SLR (full frame CMOS sensor)
- Camera lens: Nikkor AF 50mm f1.8 prime
- Tripod: Manfrotto 055MF4 with Manfrotto 438 ball leveller
- Panoramic Head: Manfrotto 33SPH

The following camera settings were used for all photography:

- Camera mode: Manual Priority
- ISO: 100
- Aperture: f13
- Image format: RAW

After the photos were complete, they were uploaded to a server to begin the simulation/visualization process. The single-frame photographs were opened in Adobe Photoshop CC 2022 where they were checked, and any camera sensor dust spots were removed before being saved as high-resolution JPEG images. If required, discrete color and tonal adjustments were made to each frame before they were saved. The single-frame photographs were stitched together in PTGui Pro version 12.11 professional photographic stitching software using cylindrical projection settings. The camera locations were plotted in Global Mapper version 23.1. Digital models of the transmission line structures were provided by Dominion, then cleaned up and textured in Autodesk 3DS Max 2021. The transmission structures along each route were rendered in Vray version 5.2 from each SP camera location. 3D imagery was produced at the field of view using camera matching. Renderings for each route and each tower combination were then exported for use as an overlay.

Detailed, correctly dimensioned 3D computer models of the transmission structures were generated using Autodesk 3DS Max 2021 and iToo RailClone. The virtual 3D model of the structures was created using real-world measurements and elevation drawings provided by the Company (see **Figure 2**). These were textured using Vray PBR materials to simulate the weathering steel texture. The detailed, textured models were rendered to a digital image using a simulated physical camera and a sun and sky simulation lighting model in the computer software consistent with conditions within the original viewpoint photography.

Photomontages were produced by overlaying the rendered image on the photograph, using known control points and the wireline imagery showing the tower columns at the correct height and distance. Final adjustments were then made to the brightness and contrast of the rendered images to match them to the photograph. Final photomontages were prepared from each viewpoint for the route. These were then opened in Adobe Photoshop CC 2022 where minor changes were made such as placing relevant tree/building/hedge screening or telegraph wires over the proposed development renders where necessary. Finally, the final images were cropped to the proportions required for the visual simulation figures, and the visualization figures were prepared in Adobe InDesign CC2022 and exported in a PDF format.

5.2 Assessment of Potential Impacts

The assessment of potential Project impacts on individual resources made use of the visual assessment findings and categorized the severity level of impacts according to the following scale devised by VDHR:

- **None** – Project is not visible from the resource.
- **Minimal** – Viewsheds have existing transmission lines, there would be only a minor change in height, and/or other views are partially obscured by topography or vegetation.

- **Moderate** – Viewsheds have more expansive views of the transmission line, more dramatic changes in height are proposed, and/or the overall visibility of the Project would be greater.
- **Severe** – Existing viewshed contains no transmission line, the view to the Project would be relatively unobstructed, the new transmission line would introduce a significant change to the setting of historic properties, and/or a dramatic change in the height of an existing transmission line would take place in close proximity to historic properties.

5.3 Historic Resource Descriptions

One property eligible for listing in the NRHP, the RF&PHD (**Photograph 1**), was identified within 0.5 mile of the proposed Project.

5.3.1 Richmond, Fredericksburg, and Potomac Railroad Historic District (VDHR ID 500-0001)

Photograph 1: The RF&PHD rail tracks, facing the proposed Project. View northeast. (MN 1/18/2024).

The RF&PHD consists of a linear, double-tracked railroad bed stretching from Long Branch Bridge over the Potomac River in Arlington County to its southern terminus at Broad Street Station in the City of Richmond, Virginia. The district also includes contributing structures along its length, such as stations, towers, bridges, culverts, rail yards, branches, and spurs. The RF&PHD is historically significant for its association with the historic Richmond, Fredericksburg, and Potomac Railroad (RF&P), a regional "bridge" railroad that linked larger railroads to the north and south, such as the Pennsylvania Railroad (PRR), Baltimore & Ohio Railroad (BO), Atlantic Coast Line Railroad (ACL), and Seaboard Air Line Railroad (SAL) (VDHR 2018).

The RF&P was chartered in 1834 as the sixth railroad in Virginia and the third to use steam power. By 1837, the railroad extended from Richmond to Fredericksburg. Although plans to extend the RF&P to Alexandria existed as early as the 1850s, the advent of the Civil War in 1861 halted expansion. During the war, the RF&P was a critical supply route for both Union and Confederate armies. Both sides also sabotaged the line at various times during the war, ultimately leaving the rail line in ruin by 1865. Intensive reconstruction efforts restored service by 1866, and the proposed link to Alexandria was completed in 1872.

Expansion to Alexandria was essential in order to link with rail lines across the Potomac in Washington, D.C. (VDHR 2018).

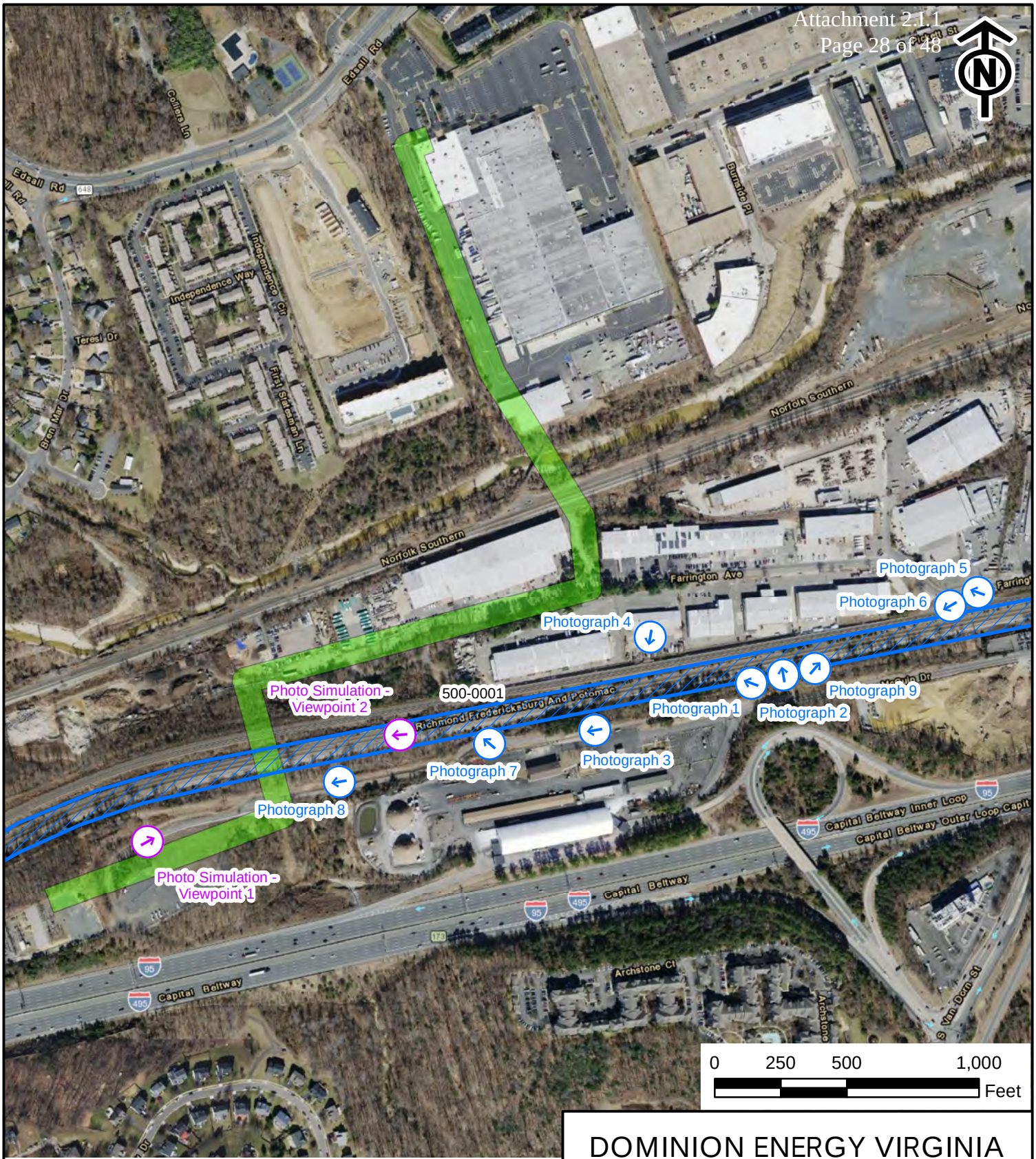
In 1903, the RF&P constructed a double track along the entire route from Richmond to Alexandria. In Richmond, the RF&P linked with the Chesapeake & Ohio Railway, the ACL, and the SAL. In Alexandria, the rail line connected with the PRR, BO, Southern Railway, and the Washington & Old Dominion Railroad. The RF&P became an important bridge between these larger, wealthier companies, and effectively linked passenger travel between northern and southern states (VDHR 2018).

As the popularity of automobile and air travel increased, the rail line faced stiff competition. Ridership reached its peak just before the mid-twentieth century and subsequently began a steep decline. With the construction of I-95 largely parallel to the RF&P in 1957, ridership drastically decreased. This loss in revenue was felt across the railroad industry, leading to the Rail Passenger Service Act of 1970, which saw the RF&P's passenger service absorbed into Amtrak. CSX now operates the former RF&P route. Passenger service along the line is carried by Amtrak and Virginia Railway Express. In 2018, the RF&PHD was determined eligible for listing in the NRHP under Criterion A for its association with transportation. The period of significance for the RF&PHD dates from 1837 through 1943 (VDHR 2018).

In order to assess the potential impact of Project activities, Dewberry's architectural historian visually inspected the setting around the RF&PHD near the proposed Project with an emphasis on views towards the route alternatives' rights-of-way. Each of the route alternatives cross the RF&PHD. The landscape of the area surrounding the RF&PHD is highly developed and industrial (see **Figure 1**). To the north, the RF&PHD tracks are bordered by the elevated, electrified WMATA tracks. Beyond the WMATA tracks, an industrial park along Farrington Avenue is visible from the RF&PHD. South of the RF&PHD, a thin, wooded drainage separates the RF&PHD from VDOT maintenance property and the Van Dorn Substation. Several extant power distribution lines cross the RF&PHD. Additional power distribution lines run parallel to the RF&PHD.

Figure 6 depicts the location of the RF&PHD in relation to the route alternatives, as well as photographic views towards the route alternatives. **Photographs 2** through **9** are representative photographs of the RF&PHD, its setting, and photos taken towards the proposed crossings of the route alternatives. **Figures 7** and **8** depict photo simulations of Route 1 structures from the perspective of the RF&PHD as well as the existing view from the simulation location. Given the similarities between routes in terms of location and angle of the proposed crossing of the RF&PHD, separate sims were not prepared for Routes 2 and 3 as it is assumed they would result in very similar effects to Route 1.

Field inspection confirmed that the new transmission lines for each route would be visible from and cross over the RF&PHD. Each route alternative would introduce minor new visual elements to the historic district viewshed, such as visible structures north and/or south of the historic district and transmission lines above the tracks within the district. At present, existing transmission lines cross the RF&PHD at two places within sight of the Routes 1, 2, and 3 proposed crossings. Also, several other electric distribution lines parallel the RF&PHD; both distribution lines and distribution poles are visible from the historic district. In addition, the surrounding industrial landscape largely post-dates the RF&PHD period of significance, including elements such as the VDOT road maintenance property, WMATA electrified metro-tracks, and industrial warehouses, all of which are visible from the RF&PHD. Finally, the Capital Beltway crosses the RF&PHD approximately 1,600 feet southwest of the Route 3 crossing and 2,100 feet southwest of the Route 1 and 2 crossings. As such, it is anticipated that the impacts of the Project on the RF&PHD will be consistent in character with its current viewshed. Therefore, the Project will have ***minimal impact*** on the viewshed of the RF&PHD.



LEGEND

DHR ID

500-0001

Route 1

Photo Location

Photo Simulation Location

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Virginia Geographic Information Network (VGIN)

DOMINION ENERGY VIRGINIA

LOCATIONS OF PHOTOGRAPHS AND PHOTO-SIMULATIONS

SCC Pre-Application Analysis of Cultural Resources
Edsall 230 kV Transmission Line
Fairfax County and the City of Alexandria, Virginia

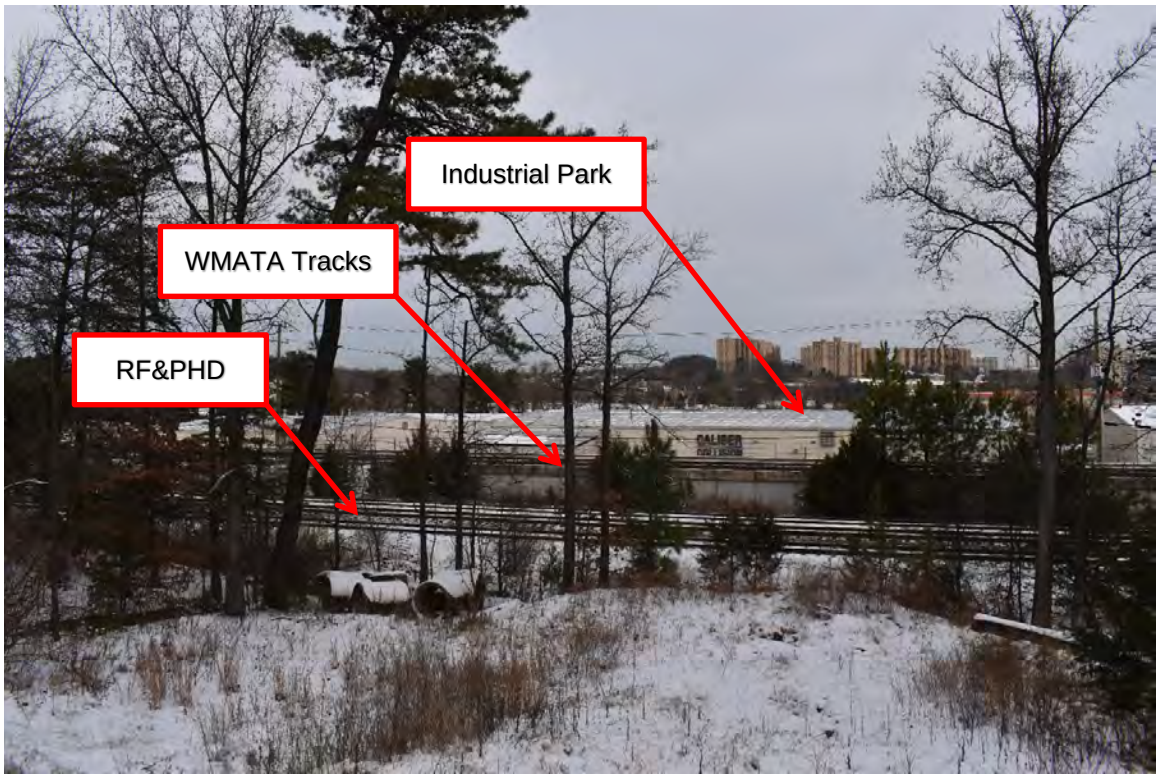
SCALE: 1" = 500'

DATE: July 2024

Dewberry

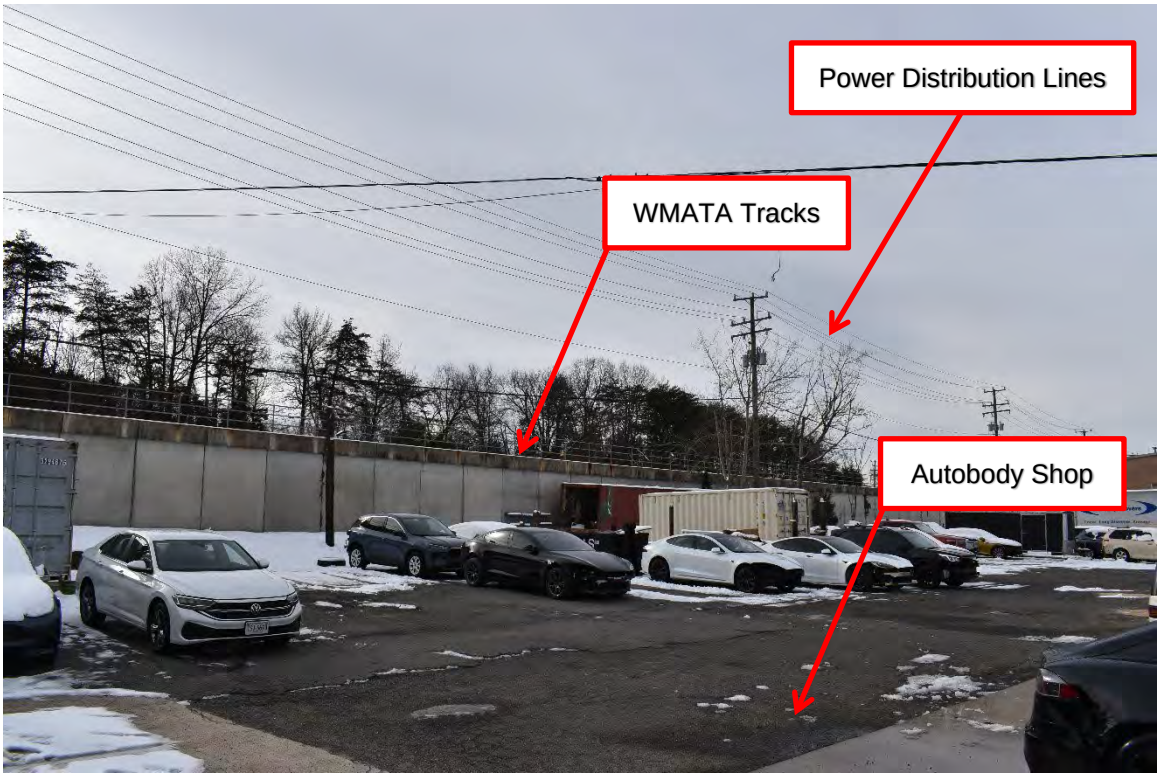
FIGURE 6

Path: Q:\50163603\GIS\Mxd\Final_Page_Turn_MXDs\6_PhotoandSimulationLocations_EdsallSCCPreAppAnalysis_FairfaxCountyVA.mxd



Photograph 2: RF&PHD overall setting near the proposed Project. View north. (MN 1/18/2024).

Photograph 3: Setting bordering the RF&PHD to the south. View west. (MN 1/18/2024).



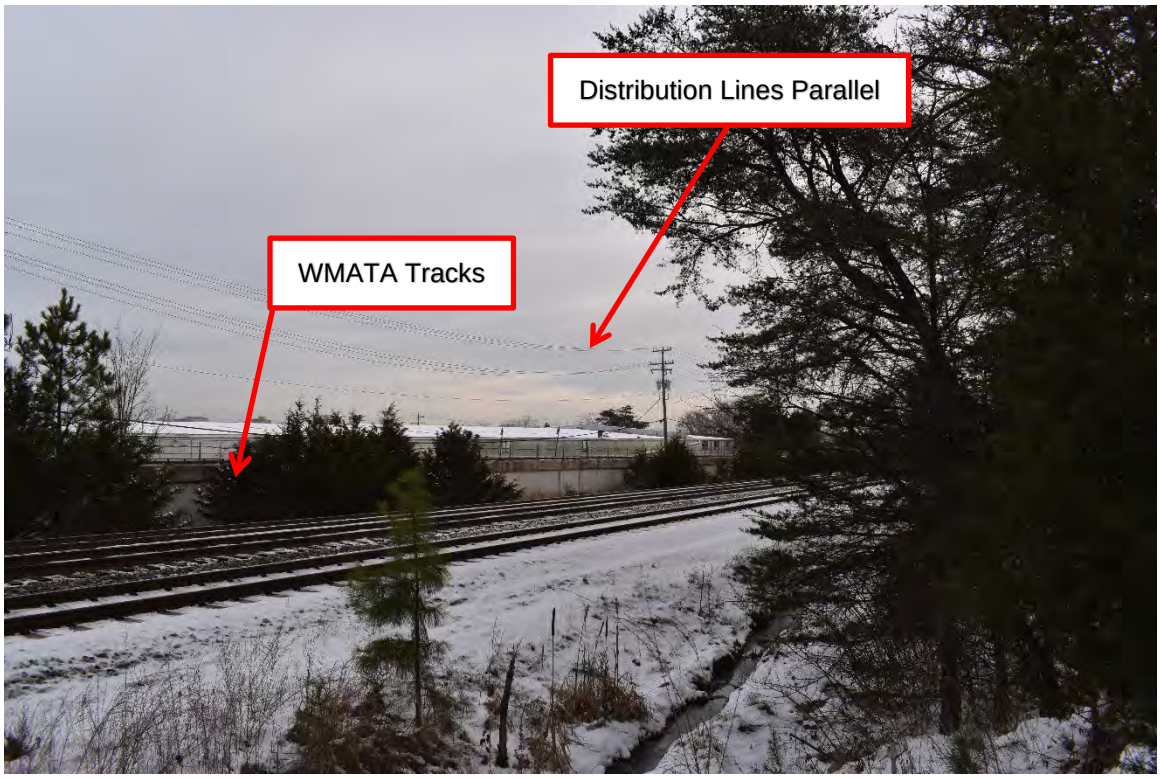
Photograph 4: Setting bordering the RF&PHD to the north, including WMATA tracks, parallel power distribution lines, and autobody shop. View southwest. (MN 1/18/2024).

Photograph 5: Industrial park along Farrington Ave. north of the RF&PHD. View northeast. (MN 1/18/2024).

Photograph 6: Extant distribution lines across the RF&PHD. View west. (MN 1/18/2024).

Photograph 7: Additional distribution lines crossing the RF&PHD near the proposed Project. View northeast. (MN 1/18/2024).

Photograph 8: Distribution lines bordering the RF&PHD to the south of Van Dorn Substation. There are several existing power distribution lines that run across the RF&PHD. Moreover, there are additional distribution power lines that are parallel to the RF&PHD. North, between WMATA tracks. View northeast. (MN 1/18/2024).



Photograph 9: Power distribution lines bordering the RF&PHD to the north, between WMATA tracks. View northeast. (MN 1/18/2024).

PHOTO SIMULATION – VIEWPOINT 1

FIGURE **7**

EDSALL
Substation Project

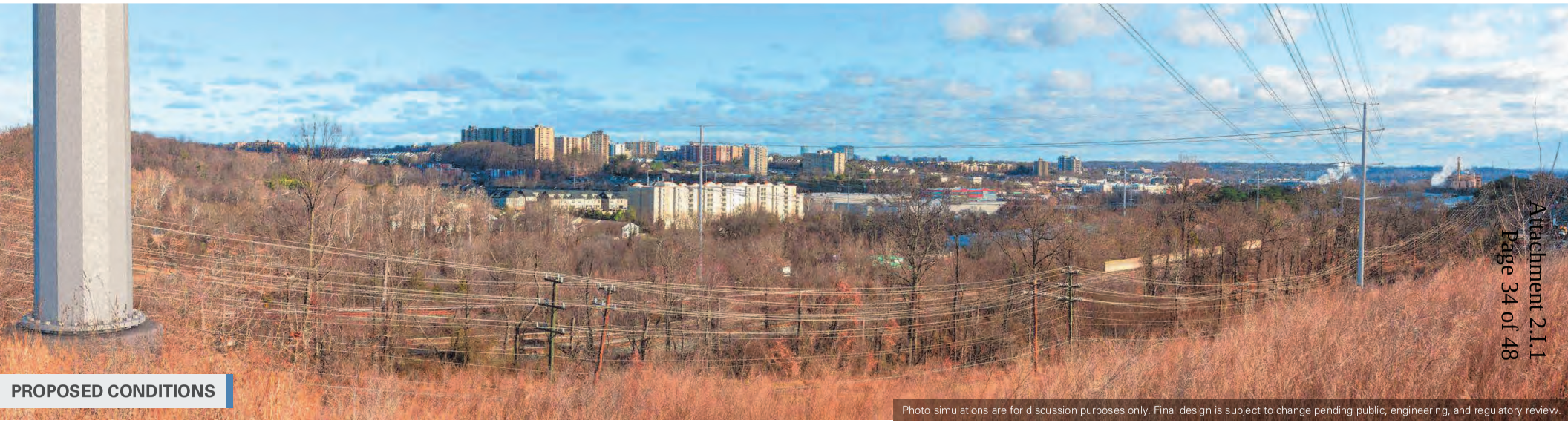
Viewpoint 1

Date: 01/29/2024 **Time:** 9:24 am **Viewing Direction:** Northeast

1 Viewpoint Location — Transmission Line

Dominion Energy®

EXISTING CONDITIONS



PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

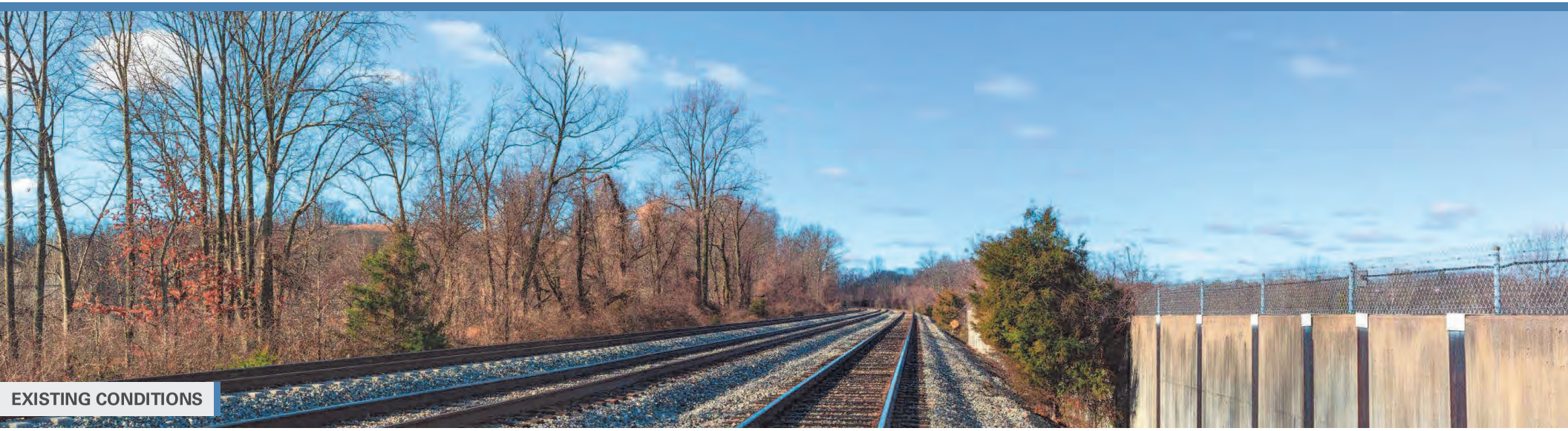
EDSALL
Substation Project

Viewpoint 2

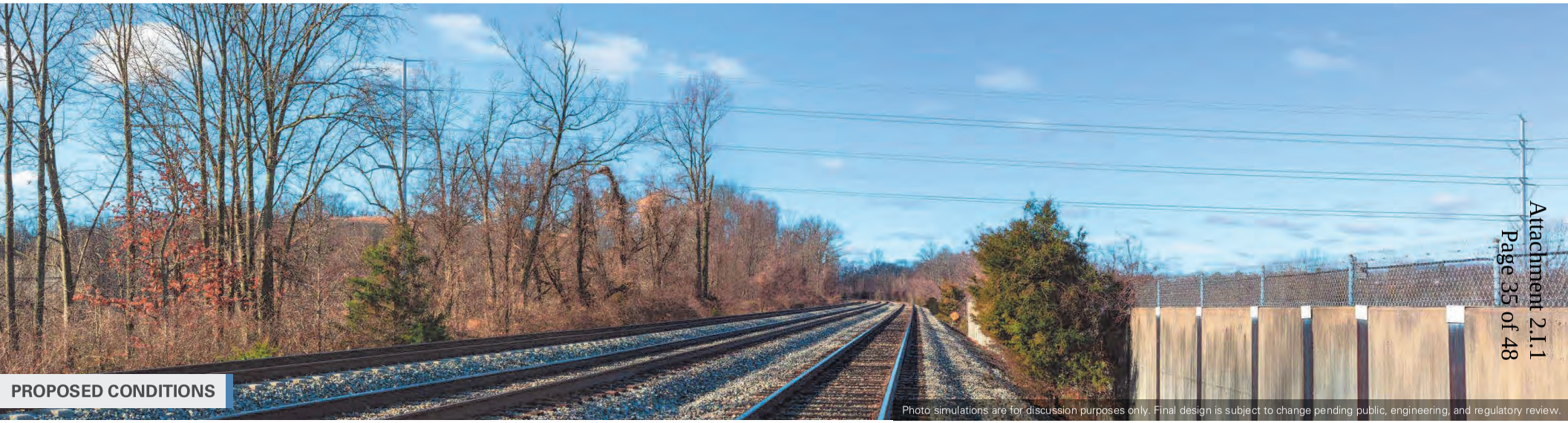
Date: 01/29/2024 **Time:** 10:04 am **Viewing Direction:** West

2 Viewpoint Location — Transmission Line

Dominion Energy®



EXISTING CONDITIONS



PROPOSED CONDITIONS

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Pre-Application Analysis gathered information on archaeological and historic architectural resources that qualify for consideration according to VDHR's *Guidelines* for transmission line projects. No known archaeological sites are located in the right-of-way of the alternative routes and/or the substation boundary. Therefore, no archaeological sites were evaluated in this analysis. One previously recorded architectural resource meeting Criteria A established under the *Guidelines* falls within the VDHR study tiers associated with the proposed Project. A portion of the identified NRHP-eligible resource, the RF&PHD (VDHR ID 500-0001), is located within the route alternatives' rights-of-way. A summary of the number of resources impacted and the degree of impact is presented in **Table 4**.

Table 4: Comparison of Project Impacts on Historic Resources in the Study Area of the Project

Route Alternative	Number of Considered Resources in Each Impact Category				
	None	Minimal	Moderate	Severe	Totals
Route 1	0	1	0	0	1
Route 2	0	1	0	0	1
Route 3	0	1	0	0	1

As part of this Pre-Application Analysis for the 230 kV Edsall Lines and Substation Project, field inspection confirmed that the new transmission lines would be visible from and cross over the RF&PHD for each route alternative within the VDHR-defined buffered tiers in accordance with the *Guidelines* (VDHR 2008).

6.1 Alternative Routes and Substation

With regards to archaeology, there are no previously recorded sites within or immediately adjacent to the Project. No archaeological field work was conducted as part of this effort. The Project should be assessed for existing conditions and impacts to potentially unknown archaeological sites as additional construction details become available.

Field inspection revealed that the new transmission lines would cross over the NRHP-eligible RF&PHD for each route, and the new substation structure would be visible from the RF&PHD. However, there are existing distribution lines that cross the RF&PHD at two locations within sight of the Route 1, 2, and 3 crossings. Additionally, several other existing power distribution lines run parallel to the RF&PHD; both the power distribution lines and distribution poles are visible from the historic district. The surrounding industrial landscape largely post-dates the RF&PHD period of significance, including elements such as the VDOT road maintenance property, WMATA electrified metro-tracks, Capital Beltway crossing, and industrial warehouses, all of which are visible from the RF&PHD. As such, it is anticipated that the impact to the RF&PHD due to Project activities will be consistent and in character with its current viewshed. Therefore, the Project will have ***minimal impact*** on the viewshed of the RF&PHD (**Table 5**).

Table 5: Potential Impacts Summary for Architectural Resources.

VDHR ID#	Resource Name	NRHP Status	Distance to Project	Viewshed Impact
500-0001	Richmond, Fredericksburg, and Potomac Railroad Historic District	Eligible	0.0 mile	Minimal

Final assessments of Project impacts will be dependent on the completion of identification-phase archaeological and historic structure surveys to be completed after the Project is certificated by the SCC and subsequent review of survey results by VDHR and other consulting parties. For any resources where the agencies concur in a finding of moderate or severe impact, the Company will propose treatments to avoid, minimize, or mitigate those impacts. Treatment options for archaeological sites could include selective structure placement to avoid direct impacts on sites, minor route adjustments to avoid crossing

sites, or archaeological data recovery. Treatment options for aboveground historic resources could include detailed site documentation, historic research, and historic preservation studies; preparation of digital media or museum-type exhibits on sites for public interpretation; installation of historic markers of signs; installation of vegetative screening; or contributions to historical preservation organizations or specific preservation projects. Additional mitigations could be identified through consultation with VDHR and other consulting parties.

6.2 Future Investigations

The next step of assessing impacts on historic resources will be to conduct an identification-phase field survey to identify and assess resources after the Project is certificated by the SCC. Surveys will be conducted in accordance with the *Guidelines* as well as *Guidelines for Conducting Historic Resources Survey in Virginia* (VDHR 2017) and National Register Criteria for Evaluation (36 CFR § 800.5) (NPS 1995).

The survey teams will be led by individuals meeting the Secretary of the Interior's professional qualification standards for archaeology and architectural history, respectively. Teams will traverse the length of the Project corridor, revisiting previously recorded archaeological and historic architectural resources and documenting as-of-yet unrecorded resources, if present, in the survey area as defined in the *Guidelines* and based on the final Project design. The archaeological survey will adhere to VDHR survey standards (VDHR 2017) and will entail systematic coverage of the approved route. Material culture, including artifacts and features, that could be 50 years old or older will be recorded. Sites will be delineated within the proposed right-of-way and/or substation site, and investigations will include subsurface testing sufficient to inform recommendations of potential eligibility for the NRHP under Criterion D. Each site will be fully documented with appropriate mapping, digital photography, and artifact collection/analysis. Site forms will be prepared for VCRIS submittal along with full site descriptions provided in a technical report.

During the course of the historic architectural survey, structures determined to be of age will be photographed and marked on the applicable U.S. Geological Survey quadrangle map. While the NPS Bulletin 15 (NPS 1995) defines a historic property as a resource that is 50 years or older, for the purposes of this Project, the survey will include those 45 years or older to accommodate the length of time needed to complete the permitting phase for the Project. Furthermore, the survey will also record those resources that may have reached significance prior to the 50 (45) year age threshold, in accordance with NPS guidance, if they are integral parts of districts, or have sufficient merit to be considered eligible for the NRHP on their own.

Digital photographs will be taken to record the historic resources' overall appearance and details. Sketch maps will be drawn depicting the relationship of dwellings to outbuildings and associated landscape features. Additional information on the structures' appearance, and integrity will be recorded to assist in making recommendations of NRHP eligibility. Historic maps, aerial photographs, and tax assessor data will be consulted to assist in dating the resources. Resources identified in the field effort will be reported to the VDHR, VCRIS numbers will be obtained, and shapefiles and database information will be provided. Sufficient information will be collected to make recommendations for each identified historic resource regarding eligibility for listing on the NRHP and to assess Project impacts.

7.0 REFERENCES

National Historic Preservation Act
1966 36 CFR 800.1-.16d. §, amended 2000.

National Park Service [NPS]
1983 *Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation*. [48 FR 44716].
1995 *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resources, Interagency Resources Division.
2009 *Civil War Sites Advisory Commission Report Update and Resurvey.* American Battlefield Protection Program.

Commonwealth of Virginia
2017 *Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia*. State Corporation Commission; Division of Public Utility Regulation. Richmond.

Virginia Department of Historic Resources
2008 *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia.* VDHR: Richmond.
2017 *Guidelines for Conducting Historic Resources Survey in Virginia.* Richmond, Virginia. Rev. 2017.
2018 *Architectural Survey Form.* VDHR ID 500-0001. On File, Richmond: Virginia Department of Historic Resources.
2024 Virginia Cultural Resource Information System (VCRIS) database and GIS server.

APPENDIX A:
Professional Qualifications

Tessa Nesta

ARCHITECTURAL HISTORIAN

Tessa Nesta is an architectural historian with a background in historic preservation, providing regulatory compliance, and writing historic preservation reports for submission to the State Historic Preservation Office. She has experience performing pre-schematic, site surveying, probe observations, Local Law 11 inspections, building deficiency inspections, design development, quality control reviews of construction documents, and specification editing.

Meets the Secretary of Interior Standards for Architectural History and History.

- **EDUCATION**

  MS • Historic Preservation • Pratt Institute • 2018

  BA • History of Art • The Ohio State University • 2012

- **YEARS OF EXPERIENCE**

  Dewberry • <1

  Prior • 5

RELEVANT EXPERIENCE

Assessment of Impacts on Historic Resources during Design and Construction of Capital Projects, MTA Construction & Development (C&D), New York, NY. Architectural Historian acting as MTA C&D's in-house cultural resources staff. Services include agency coordination, historic documentary review, on-site inspections of historic resources, review of construction documents, completion of consultation documents, suggestions for alternative construction approaches to avoid or minimize effects to historic properties, submission of consultation documents to New York State Historic Preservation Office/New York City Landmarks Preservation Commission, or other tasks as determined by MTA C&D staff. Capital projects receiving federal funding from the Federal Transit Administration are subject to Section 106 of the National Historic Preservation Act. For capital projects receiving state funding, cultural resources compliance is conducted under Section 14.09 of the New York State Historic Preservation Act, which parallels the Section 106 process.

Environmental Due Diligence Assessment under National Environmental Policy Act (NEPA) for Americans with Disabilities Act (ADA) Package 5 Bundle, MTA Construction & Development (C&D), New York, NY. Architectural Historian for environmental analysis and preparation of National Environmental Policy Act (NEPA) Categorical Exclusion (CE) Worksheets for Federal Transit Administration (FTA) review for accessibility improvements for 13 New York City Transit passenger stations. Responsibilities include review and analysis for compliance with Section 106 of the National Historic Preservation Act (NHPA) including New York State Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (SHPO) consultation.

Sotomayor Houses, Masonry, Parapets and Roof Material Review, New York City Housing Authority, Bronx, NY. Preservationist responsible for review of contractor construction plans, focused on masonry repairs, new windows, roofing, parapets, and terra cotta rain screen cladding at the bulkheads to confirm adherence to design standards and regulatory compliance. Conducted thorough inspections of the construction site to ensure adherence to the design documents and verified work aligned with the project requirements, architectural specifications, and relevant regulations.

Amsterdam Houses Renovation Project, Material Review, New York City Housing Authority, New York, NY. Preservationist responsible for review of contractor construction plans, building inspections, issuing sketches, bulletins and estimates for scope changes, and tracked and monitored permits and approvals. Project focused on masonry repairs, roofing, parapets, and terra cotta rain screen cladding.

Tessa Nesta
ARCHITECTURAL HISTORIAN

Permanent Affordability Commitment Together (PACT) 8 and 9 Accessibility Desktop Analysis, New York City Housing Authority. Preservationist responsible for reviewing NYCHA developments within Pact 8 and 9 to identify buildings and units to be converted into hearing, visual, and accessibility compliant units. Examined architectural plans, infrastructure, and available resources to determine the feasibility of incorporating hearing, visual, and accessibility compliant elements. Analyzed factors such as entrance accessibility, interior layout, communication systems, and visual aids to determine potential conversion options. Conducted a detailed feasibility analysis for each building and unit, considering factors like structural integrity, cost implications, and potential impact on residents' living conditions.

P.S. 11M Renovation, Masonry, Parapets and Roof Material Review, New York City School Construction Authority. Preservationist for site surveys to assess building condition, prepared report outlining the necessary restoration and preservation work, including structural, architectural, and aesthetic aspects, and prepared SHPO reports that presented field collected data for compliance with historic preservation guidelines.

P.S. 799K Renovation, Masonry, Parapets and Roof Material Review, New York City School Construction Authority. Preservationist for construction administration, coordination, and oversight. The project focused on new windows, roofing, parapet, and a complete reskinning of the facade using architectural precast concrete at the base and fiber cement panels throughout the upper floors and bulkheads.

Meets the Secretary of Interior Qualification Standards for Archaeology and History.

- **EDUCATION**
  MA • Anthropology • East Carolina University • 2020

  BA • Archaeology • The University of North Carolina at Chapel Hill • 2018

- **REGISTRATIONS**
  Registered Professional Archaeologist • U.S.

- **YEARS OF EXPERIENCE**
  Dewberry • 3

  Prior • 1

Michael Navarro RPA
STAFF ARCHAEOLOGIST

Michael conducts research, investigation, and/or mitigation of historical or cultural resources. Fieldwork prior to joining Dewberry includes excavations and archaeological survey. Michael has conducted surveys, excavations, and laboratory investigations across multiple countries and concerning multiple time periods. His specialization with archaeological human skeletal remains helps clients navigate the sensitive legal and ethical ramifications within those projects.

RELEVANT EXPERIENCE

Phase I Archaeological Survey, 360 Solar Center, Sun Tribe Development, Chesterfield County, VA. Archaeologist for proposed 52 MW solar photovoltaic site covering almost 1,400 acres in central southern Virginia. Primary author of a cultural resource report prepared to satisfy the Virginia Department of Environmental Quality's Solar Permit by Rule (PBR) process. Field Director for archaeological survey which involved the application of archaeological site predictive modeling to avoid surveying areas with little to no archaeological potential and focused survey on hand excavation of nearly 3,000 shovel tests and pedestrian reconnaissance to evaluate approximately 200 acres of archaeological potential. The results of the archaeological survey allowed Sun Tribe to modify their proposed solar array to avoid impacts on two previously unknown archaeological sites (one prehistoric and one historic) and one previously un-surveyed historic family cemetery. An additional five previously unknown historic archaeological sites were identified and recommended not eligible for listing in the NRHP at the Phase I level.

Phase I Archaeological Survey, Virginia State Police Division Six Headquarters, City of Salem, VA. Archaeologist for proposed state police headquarters within two parcels totaling 11.1 acres in western Virginia. Primary author of a cultural resource report conducted on behalf of VSP. Directed field survey which included background research, pedestrian reconnaissance, archaeological sensitivity modeling, and excavation of 225 shovel tests across the proposed Division Six Headquarters property. Fieldwork resulted in the establishment of one previously unknown prehistoric archaeological site. The survey allowed VSP to modify their proposed headquarters to avoid impacts to the archaeological site and proceed with development.

Phase I Cultural Resources Eligibility/Effects Documentation, RT 73 Church Road (CR 616) to Fellowship Road (CR 673), Mount Laurel and Maple Shade Townships, Burlington County, NJ. Archaeologist and primary author of cultural resources eligibility/effects documentation, which consisted of combined background research and fieldwork results designed to identify cultural resources and define archaeological site boundaries within the project area. Field Director overseeing the excavation of 232 shovel tests along RT 73 and Church Road in areas sensitive for historic and prehistoric archaeology. No historic sites were identified within the project area; NJDOT was able to proceed with development of major road improvements.

Phase IA Cultural Resources Assessment, Transmission Line 531 & 541 – Pole 84-87 Project, Orange and Rockland Utilities, Inc., Towns of Clarkstown and Ramapo, NY. Archaeologist for proposed improvements to existing transmission lines near Spring Valley, NY. Tasked with conducting background research, including environmental factors, previously conducted cultural resource studies, and known historic properties, in order to establish areas of high,

Michael Navarro RPA
STAFF ARCHAEOLOGIST

moderate, and low archaeological sensitivity within the project area. Background research and predictive site modeling identified 5.25 acres of high sensitivity. Identification of sensitivity areas allowed for targeted Phase IB testing recommendations in the case that ground disturbing activities are proposed.

Phase IA Archaeological Survey, Project Freedom Site, Chaney Enterprises, Sussex County, VA. Archaeologist for proposed hard-rock quarry site in Sussex County, VA near Stony Creek. Field investigator during site visit to the proposed 176-acre quarry site. Primary author of a cultural resource report conducted in order to establish areas of high, moderate, and low archaeological sensitivity within the proposed quarry. Background research and predictive site modeling identified 57 acres of high sensitivity. Identification of sensitivity areas allowed for reduced proposed shovel test density in low sensitivity areas, expediting the anticipated Phase IB subsurface survey for Chaney Enterprises.

Phase I Archaeological Survey, Glades Group Site, FEMA Direct Housing Mission, Lee County, FL. Archaeologist for proposed temporary housing site in the wake of Hurricane Ian near Fort Myers. Field Director overseeing surface survey and excavation of 20 shovel test pits at the Glades Group Site. Primary author of a cultural resources report prepared to satisfy NEPA and NHPA 1966, as amended. Subsurface survey of the Glades Group sites revealed no significant cultural resources within APE; a full report was drafted quickly following fieldwork completion. FEMA was able to advance temporary housing mission within an accelerated timeline.

Phase I Archaeological Survey, Bokeelia Gardens Group Site, FEMA Direct Housing Mission, Lee County, FL. Archaeologist for proposed temporary housing site in the wake of Hurricane Ian on Pine Island. Field crew member assisting surface survey and excavation of over 60 shovel test pits at the Bokeelia Gardens Group Site. Subsurface survey of the Bokeelia Gardens Group Site revealed no significant cultural resources within APE; a full report was drafted quickly following fieldwork completion. FEMA was able to advance temporary housing mission within an accelerated timeline.

Phase I Archaeological Survey, United Memorial Group Site, FEMA Direct Housing Mission, Monroe County, MS. Archaeologist for proposed temporary housing site in Amory, MS. Field crew member assisting surface survey and excavation of 53 shovel test pits at the United Memorial Group Site. Subsurface survey of the Bokeelia Gardens Group Site revealed one new historic archaeological site recommended Not Eligible for listing in the NRHP; a full report was drafted quickly following fieldwork completion and SHPO coordination. FEMA was able to advance temporary housing mission within an accelerated timeline.

Assessment of Impacts on Historic Resources during Design and Construction of Capital Projects, As-Needed Services, MTA Construction & Development (MTA C&D), New York, NY. Historian/Archaeologist acting as MTA C&D's in-house cultural resources staff. Services include agency coordination, historic documentary review, on-site inspections of historic resources, review of construction documents, completion of consultation documents, suggestions for alternative construction approaches to avoid or minimize effects to historic properties, submission of consultation documents to New York State Historic Preservation Office (SHPO)/New York City Landmarks Preservation Commission (LPC), or other tasks as determined by MTA C&D staff. Capital projects receiving federal funding from the Federal Transit Administration are subject to Section 106 of the National Historic Preservation Act. For capital projects receiving state funding, cultural resources compliance is conducted under Section 14.09 of the New York State Historic

Michael Navarro RPA
STAFF ARCHAEOLOGIST

Preservation Act, which parallels the Section 106 process. More than 90 capital projects have been reviewed since 2022.

Natural and Cultural Resources Reviews, Duke Energy Corporation, NC and SC. Archaeologist responsible for reviewing archaeological, historic, and environmental data maintained by the NC and SC State Historic Preservation Offices within various transmission alignments and substation parcels. Principle investigator tasked with making recommendations as to potential further cultural resource needs prior to project design. Projects include multiple power line and substation alterations throughout North and South Carolina. More than 15 projects have been reviewed since 2021.

Phase I Archaeological Survey, Indian Health Service, King William County, VA. Archaeologist and primary author responsible for preparing a Phase I Archaeological Survey, which consisted of combined background research and archaeological fieldwork designed to identify cultural resources and define archaeological site boundaries within the project's Area of Potential Effect (APE). Responsibilities included review of available archaeological and historical data; review of past archaeological research within and near the project site; excavation of 10 shovel tests within the Pamunkey Indian Reservation Archaeological District; and primary author of the report documentation.

PNC Bank Arts Center Interpretive Panels, New Jersey Turnpike Authority, Holmdel, NJ. Archaeologist responsible for compiling research, images, and background information on the history, architecture, and engineering of the PNC Bank Arts Center in Holmdel, NJ along the Garden State Parkway. Drafted three of five informative panels requested by NJHPO to mitigate partial loss of the historic Arts Center landscape. Panels are displayed on the Arts Center grounds. Panels focused on five primary subjects: Architecture, Engineering, Social Context, Architect, and Construction.

Phase I Cultural Resources Eligibility/Effects Documentation, Chadwick Beach Island Bridge, Ocean County, NJ. Archaeologist and primary author of cultural resources eligibility/effects documentation, which consisted of combined background research and fieldwork results designed to identify cultural resources and define archaeological site boundaries within the project area. Responsibilities included review of available archaeological and historical data; review of past archaeological research within and near the project site; review of environmental and soils classifications within the project site; and archaeological sensitivity modeling to eliminate unnecessary areas for subsurface excavation. The documentation allowed the client to move forward with design and replacement of a critical infrastructure element.

Desktop Cultural Resource Reviews, Multiple Projects, Sun Tribe Development, Essex and King George Counties, VA. Archaeologist and primary author responsible for preparing desktop reviews of land parcels targeted by Sun Tribe for photovoltaic solar array development. Responsibilities included review of archaeological and historic architectural site files maintained by the Virginia Department of Historic Resources and displayed on the Virginia Cultural Resource Information System. Review documents were utilized by the client in the early project planning stages for parcel acquisition and solar array design.

Meets the Secretary of Interior Qualification Standards for Archaeology and History.

- **EDUCATION**

PhD (ABD) • Interdepartmental Doctoral Program in Anthropology • SUNY Stony Brook • 2006

MA • Anthropology • SUNY Stony Brook • 2000

MA • Archaeology • University of London • 1994

BA • Archaeological Studies • Boston University • 1993

- **REGISTRATIONS**

Registered Professional Archaeologist

SHPO/NYSOPRHP: Human Remains Discovery Protocol. ACEC New York Course # 3256 (2020)

An Advanced Workshop for National Register Nomination Preparers, National Park Service and New Jersey Historic Trust (2012)

Cultural Resources Best Practices Workshop, 7-Hour Training Program, New Jersey Historic Preservation Office (2006)

OSHA 40-Hour Hazardous Waste Operations Training: Annual Refreshers • U.S.

Trenching and Excavation Safety – OSHA Construction Industry Standards, Subpart P (29 CFR 2926. 650-652) (2009)

- **YEARS OF EXPERIENCE**

Dewberry • 7

Zachary Davis RPA

ASSOCIATE, CULTURAL RESOURCES DISCIPLINE LEAD

Zachary Davis is a senior archaeologist and project manager responsible for Phase IA Archaeological Assessments, Phase IB Archaeological Surveys, Phase II Archaeological Site Evaluations, and Phase III Archaeological Mitigation and Data Recovery. Zachary leads Dewberry's nationwide cultural resource practice group of terrestrial archaeologists, maritime archaeologists, architectural historians, and historians. He is has experience identifying, evaluating, and recording historic properties; conducting historic, archaeological, architectural, geological, and genealogical studies; monitoring construction; and conducting impact assessments. His work supports compliance with Section 106, Section 4(f), Section 6(f), National Environmental Policy Act (NEPA), and local regulations. He has led cultural resources studies and regulatory compliance for hundreds of projects throughout the U.S.

RELEVANT EXPERIENCE

Picket Place Bridge, Local Concept Development Study, North Jersey Transportation Planning Authority (NJTPA), Somerset County, NJ. Cultural Resources Lead, as a subconsultant, for the Local Concept Development Study for the Picket Place Bridge in Branchburg and Hillsborough Township. Supported the environmental screening; contributed to the preparation of a Purpose and Need Statement, Alternatives Analysis, selection of the Preliminary Preferred Alternative, and preparation of the Concept Development Report.

Phase I Archaeological Survey, Pamunkey Indian Reservation, Indian Health Service (IHS) and General Services Administration (GSA), King William County, VA. Project Manager for archaeological surveys conducted for the Indian Health Service (IHS) in support of proposed utility installations for water and sewer. This work is conducted under a Blanket Purchase Agreement using a General Services Administration (GSA) contract. The typical Phase I archaeological survey consists of combined background research and archaeological fieldwork designed to identify cultural resources and define archaeological site boundaries within a project's Area of Potential Effect (APE).

Cultural Resources Eligibility/Effects Documentation, Route 35, Osborne Avenue to Manasquan River & Old Bridge Road to Rt. 34 & Rt. 70, Bay Head, Point Pleasant Beach, Point Pleasant, Ocean County and, Brielle and Wall, Monmouth County, New Jersey. Project Manager for proposed road, drainage and ADA improvements requiring completion of archaeological and historic architectural surveys within the discontinuous project corridor. Surveys documented extensive disturbance and compromised deposits throughout the Archaeological APE. Improvements were located in proximity to several historic properties including the NRHP-eligible New York and Long Branch Railroad Historic District and Route 35 Bridge over the Manasquan River. NJHPO concurred that the project would have no adverse effect on historic properties., allowing the project to advance to final design.

Sun Tribe Solar – Mill Creek Solar Cultural Resource Risk Assessment, Essex County, VA. Cultural Resources Lead. Responsible for quality review and management of the completion of a cultural resource risk assessment for an approximate 510-acre Mill Creek Solar project, to be located in Essex County, Virginia. The assessment included a review of the project's environmental setting, including soil conditions and slope, review of previously recorded historic properties on file with the Virginia Department of Historic Resource's Virginia Cultural Resource Information System (V-CRIS), and summary of historic maps of the project area. The

Zachary Davis RPA
ASSOCIATE, CULTURAL RESOURCES DISCIPLINE LEAD

assessment concluded that the project area possesses a high risk to contain historic properties due to the presence of numerous archaeological sites in the project area.

Smithville Neighborhood Revitalization, Transportation and Drainage Improvements, Cornelius, Mecklenburg County. Preparation of a Historic Structures Survey Report for proposed community revitalization efforts enacted by the Town of Cornelius using Community Development Block Grant (CDBG) funds. Prepared an evaluation of the Smithville Historic District's eligibility for inclusion in the National Register of Historic Places. The survey identified 59 historic structures contributing to the National Register eligible historic district, representing a collection of residences dating from the late 19th century embodying the characteristics and experiences of Jim Crow segregation and community disenfranchisement through material alteration to their unifying architectural style.

Sun Tribe Solar – Caledon Solar Cultural Resource Risk Assessment, King George County, VA. Cultural Resources Lead. Responsible for quality review and management of the completion of a cultural resource risk assessment for an approximate 400-acre Caledon Solar project, to be located in King George County, Virginia, adjacent to Caledon State Park. The assessment included a review of the project's environmental setting, including soil conditions and slope, review of previously recorded historic properties on file with the Virginia Department of Historic Resource's Virginia Cultural Resource Information System (V-CRIS), and summary of historic maps of the project area. The assessment concluded that the project area possesses a high risk to contain historic properties, highlighted by the presence of multiple archaeological sites within the project area.

Harlem Line Truss Bridges Environmental Review, MTA Construction & Development and Metro-North Railroad, Fleetwood and Scarsdale, Westchester County, NY. Cultural Resources Lead. Responsible for compliance with Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the U.S. Department of Transportation Act, and New York's State Environmental Quality Review Act (SEQRA). The work supports the Design-Build replacement of three truss bridges along Metro-North's Harlem Line. Bridge HA19.35 was constructed in 1895 and carries two tracks over the Bronx River. The two bridges located at HA14.57 were constructed in 1920 and 2001.

Assessment of Impacts on Historic Resources during Design and Construction of Capital Projects, As-Needed Services, MTA Construction & Development, Systemwide, NY and CT. Project Manager responsible for leading Dewberry architectural historians, archaeologist, and historians that act as MTA C&D's in-house cultural resources staff. Services include agency coordination, historic documentary review, on-site inspections of historic resources, review of construction documents, or other tasks as determined by MTA C&D staff. Our historic preservation specialists assist MTA C&D with agency coordination, historic documentary review, on-site inspections of historic resources, review of construction documents, completion of consultation documents, suggestions for alternative construction approaches to avoid or minimize effects to historic properties and submission of consultation documents to OPRHP/LPC as needed staff. Capital projects receiving federal funding from the Federal Transit Administration (or the Department of Homeland Security) are subject to Section 106 of the National Historic Preservation Act. Capital projects receiving state funding for regular maintenance or state of good repair projects; cultural resources compliance are subject to Section 14.09 of the New York State Historic Preservation Act, which parallels the Section 106 process. At times, LPC review is required for projects involving City Environmental Quality Review or City permitting for Landmarked buildings present within the project area. Through June 2023, Dewberry has provided assistance to MTA C&D for more than 90 distinct

Zachary Davis RPA
ASSOCIATE, CULTURAL RESOURCES DISCIPLINE LEAD

projects, ranging from the installation of facial recognition cameras at 108 stations, new ADA accessible elevator entrances at historic stations, transformer upgrades across multiple subway lines, upgrading communication equipment, installing fare evasion enhancements at historic station turnstile entrances and assessing impacts to historic properties as a result of the installation of Electric Vehicle charging infrastructure at multiple bus depots.

Environmental Review for Blue Acres Program, New Jersey Department of Community Affairs (NJDCA), Bergen County, NJ. Cultural Resources Lead for Environmental and Historic Preservation (EHP) reviews of three properties being acquired under the Blue Acres Buyout Program. Reviewed environmental impact areas to support HUD CDBG-DR funding. Reviews include desktop analysis, field reconnaissance, cultural resources consultation, preparation of Environmental Review Records, and public notification.

EHP Review for Blue Acres Properties, NJDEP, Southampton Township, NJ. Cultural Resources Lead for EHP reviews of 52 residential properties being acquired under the Blue Acres Buyout Program. Reviewed environmental impact areas to support U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funding. Completed Section 106 documentation of the three properties which included desktop analysis of historic development, topographic conditions, and historic property information on file with the New Jersey Historic Preservation Office (NJHPO). Also authored consulting and interested party letters as part of Section 106 process.

EHP Review for Blue Acres Properties, NJDEP, Pemberton Township, NJ. Cultural Resources Lead for EHP reviews of 10 residential properties being acquired under the Blue Acres Buyout Program. Reviewed environmental impact areas to support HUD CDBG-DR funding. Completed Section 106 documentation of the three properties which included desktop analysis of historic development, topographic conditions, and historic property information on file with the NJHPO. Also authored consulting and interested party letters as part of Section 106 process.

EHP Review for Blue Acres Properties, NJDEP, Manalapan Township, NJ. Cultural Resources Lead for EHP reviews of seven properties being acquired under the Blue Acres Buyout Program. Reviewed environmental impact areas to support U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funding. Reviews include desktop analysis, field reconnaissance, cultural resources consultation, preparation of Environmental Review Records, and public notification.

JULY 25, 2024

Dewberry

SUBMITTED BY
Dewberry Engineers Inc.
600 Parsippany Road, Suite 301
Parsippany, NJ 07054

From: Moore, Daniel (DEQ)
To: Lucas A DuPont (Services - 6)
Cc: Environmental Impact Review (DEQ)
Subject: [EXTERNAL] Scoping - Edsall Substation
Date: Friday, April 19, 2024 2:17:01 PM
Attachments: Outlook-dezul0rp.png
SCOPING 230 kV Line Edsall Substation Project – Fairfax. Co. 4.19.24.docx

Mr. DuPont:

Please find attached the DEQ Office of Watersheds and Local Government Asstance Programs response regarding CBPA compliance for the proposed Edsall Substation project.

Daniel Moore
Principal Environmental Planner
Office of Watersheds and Local Government Assistance
Virginia Department of Environmental Quality
1111 E. Main Street
Richmond, VA 23219
(804) 774-9577
daniel.moore@deq.virginia.gov

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482 FAX (804) 698-4178
www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

MEMORANDUM

TO: Lucas DuPont, Dominion Energy Environmental Specialist

FROM: Daniel Moore, DEQ Principal Environmental Planner

DATE: April 19, 2024

SUBJECT: SCOPING: Dominion Energy 230 kV Lines #210 and #243 Extension and Proposed 230-34.5 kV Edsall Substation Project, Fairfax County, Virginia

We have reviewed the Scoping Request for the proposed 230 kV Line Extension and Edsall Substation Project and offer the following comments regarding consistency with the provisions of the *Chesapeake Bay Preservation Area Designation and Management Regulations* (Regulations):

In Fairfax County, the areas protected by the Chesapeake Bay Preservation Act (CBPA), as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs), as designated by the locality. RPAs include tidal wetlands, non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow, and tidal shores. RPAs in Fairfax County also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. RMAs, which require less stringent performance criteria than RPAs, includes all lands contiguous to the inland boundary of the RPA and which, if not properly managed, have a potential for degrading water quality or diminishing the functional value of the RPA. In Fairfax County, the RMA includes all areas of the County not included in the RPAs.

The proposed projects calls for the construction of a new 230-34.5 kV substation on Edsall Road and the extension of two existing single circuit lines (Hayfield-Van Dorn Line #210 and Ox-Van Dorn Line #243) from the existing Van Dorn Substation to the proposed Edsall Substation in Fairfax County. The project site is located west and southwest of the boundary line between Fairfax County and the City of Alexandria, where Backlick Run enters the city.

The route for the proposed transmission line extension and the location for the proposed Edsall Substation are located within the RPA buffer designated by Fairfax County to protect Turkeycock Run, a perennial stream that runs between Edsall Road to the north and Backlick Run to the south. Based on review of the Fairfax County CBPA Map 81-2 and aerial photography of the project site, current conditions immediately east of Turkeycock Run show a surface parking lot where the proposed Edsall Substation is to be located, and that the majority of the land within the Customer Data Center Campus shown on the Project Overview Map is designated as RPA by Fairfax County. The scoping documentation provided does not indicate the square footage or limits of disturbance for the proposed Edsall Substation.

Per 9VAC25-830-150 B 2 of the Regulations, construction, installation, operation, and maintenance of public utilities such as electric transmission lines and their appurtenant structures within local-designated RPAs are exempt, provided the transmission lines are constructed in accordance with the following conditions:

1. To the degree possible, the location of such utilities and facilities should be outside Resource Protection Areas;
2. No more land shall be disturbed than is necessary to provide for the proposed utility installation;
3. All such construction, installation and maintenance of such facilities and facilities shall be in compliance with all applicable state and federal permits and designed and conducted in a manner that protects water quality; and
4. Any land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control regulations promulgated pursuant to the Erosion and Sediment Control Law (§10.1-560 et. seq. of the Code of Virginia) and the Stormwater Management Act (§10.1-603.1 et. seq. of the Code of Virginia);

Provided adherence with the above requirements, the proposed activity would be consistent with the Chesapeake Bay Preservation Act and the Regulations.

From: ImpactReview
To: Fulcher, Valerie (DEQ); Lucas A Dupont (Services - 6)
Subject: [EXTERNAL] Re: NEW SCOPING Edsall Substation
Date: Wednesday, April 10, 2024 4:22:25 PM

Hi Lucas,

The Virginia Outdoors Foundation has reviewed the project referenced below. As of April 10, 2024, this project will not encroach on any existing nor proposed VOF open-space easements.

Please contact VOF again for further review if the project area changes or if this project does not begin within 24 months. Thank you for considering conservation easements.

Best,
Baron

Baron Lin (*he/they*)
GIS Specialist
Virginia Outdoors Foundation [vof.org]
cell: 540-935-3163
other work #: 844-863-9800, ext. 355
email: blin@vof.org

From: Fulcher, Valerie (DEQ) <Valerie.Fulcher@deq.virginia.gov>
Sent: Wednesday, April 10, 2024 1:39 PM
To: dgif-ESS Projects (DWR) <ESSProjects@dwr.virginia.gov>; Tignor, Keith (VDACS) <Keith.Tignor@vdacs.virginia.gov>; DCR-PRR Environmental Review (DCR) <envreview@dcr.virginia.gov>; odwreview (VDH) <odwreview@vdh.virginia.gov>; Ballou, Thomas (DEQ) <Thomas.Ballou@deq.virginia.gov>; Lovain, Anna (DEQ) <Anna.Lovain@deq.virginia.gov>; Gavan, Larry (DEQ) <Larry.Gavan@deq.virginia.gov>; Gavan, Larry (DEQ) <Larry.Gavan@deq.virginia.gov>; Moore, Daniel (DEQ) <Daniel.Moore@deq.virginia.gov>; Miller, Mark (DEQ) <Mark.Miller@deq.virginia.gov>; Kirchen, Roger (DHR) <Roger.Kirchen@dhr.virginia.gov>; Simms, Danielle (DEQ) <Danielle.Simms@deq.virginia.gov>; Lasher, Terrance J. (DOF) <Terry.Lasher@dof.virginia.gov>; Folks, Clint (DOF) <Clint.Folks@dof.virginia.gov>; EIR Coordination (VDOT) <EIR.Coordination@vdot.virginia.gov>; Heller, Matthew (Energy) <matt.heller@energy.virginia.gov>; ImpactReview <impactreview@vof.org>; MRC - Scoping (MRC) <Scoping@mrc.virginia.gov>; Lazaro, Robert (VDOT) <rlazaro@novaregion.org>; Hermann, Katherine <Katherine.hermann@fairfaxcounty.gov>

Cc: lucas.a.dupont@dominionenergy.com <lucas.a.dupont@dominionenergy.com>
Subject: NEW SCOPING Edsall Substation

Alert: This email originated from outside VOF
Good afternoon—attached is a request for scoping comments on the following:

> **Dominion Energy Virginia's 230 kV Lines #210 and #243 Extension and proposed 230-34.5 kV Edsall Substation**

If you choose to make comments, please send them directly to the project sponsor (lucas.a.dupont@dominionenergy.com**) and copy the DEQ Office of Environmental Impact Review: eir@deq.virginia.gov. We will coordinate a review when the environmental document is completed.**

DEQ-OEIR's scoping response is also attached.

If you have any questions regarding this request, please email our office at eir@deq.virginia.gov.

Valerie

Valerie A. Fulcher, CAP, OM, Admin/Data Coordinator Senior
Department of Environmental Quality
Environmental Enhancement - Office of Environmental Impact Review
1111 East Main Street
Richmond, VA 23219
NEW PHONE NUMBER: 804-659-1550
Email: Valerie.Fulcher@deq.virginia.gov
https://www.deq.virginia.gov/permits-regulations/environmental-impact-review [deq.virginia.gov]

For program updates and public notices please subscribe to Constant Contact:
https://lp.constantcontact.com/su/MVcCump/EIR [lp.constantcontact.com]

From: Denny, S. Scott (DOAV) <Scott.Denny@doav.virginia.gov>
Sent: Thursday, April 11, 2024 11:15 AM
To: Christiaanna C Mcdonald (Services - 6) <C.McDonald@dominionenergy.com>
Subject: [EXTERNAL] Re: Dominion Energy Virginia's Proposed 230 kV Lines #210 and #243 Extension and Proposed 230-34.5 kV Edsall Substation in Fairfax County, Virginia

Ms. McDonald:

The Virginia Department of Aviation has reviewed the information provided in your April 9, 2024 email regarding Dominion's 23kV Line # 210 and #243 Extension and the proposed Edsall Substation. Following our review staff has determined that the proposed project is greater that 20,000 linear feet from any public use airport. Therefore, the Department has no objection to the project as it has been presented. Should any portion of the project reach a height of 200' above ground level, including but limited to temporary cranes needed during construction, a 7460 will be required to be submitted to the Federal Aviation Administration so that an Airspace Evaluation can be initiated.

Please advise me if you have any questions regarding this matter.

Sincerely,

S. Scott Denny
Virginia Department of Aviation

From: C.McDonald@dominionenergy.com <C.McDonald@dominionenergy.com>
Sent: Tuesday, April 9, 2024 5:08 PM
To: Kirchen, Roger (DHR) <roger.kirchen@dhr.virginia.gov>; mlittle@vof.org <mlittle@vof.org>; Denny, S. Scott (DOAV) <scott.denny@doav.virginia.gov>; Li, Benli <bli@wmata.com>; Welch, Steven (VDOT) <steven.welch@vdot.virginia.gov>; joshua.lineberger@vpra.virginia.gov <joshua.lineberger@vpra.virginia.gov>; Hudson, Samantha <Samantha.Hudson@fairfaxcounty.gov>; tracy.strunk@fairfaxcounty.gov <tracy.strunk@fairfaxcounty.gov>; leedist@fairfaxcounty.gov <leedist@fairfaxcounty.gov>; mason@fairfaxcounty.gov <mason@fairfaxcounty.gov>
Cc: jvalaika@mcguirewoods.com <jvalaika@mcguirewoods.com>; ahaynes@mcguirewoods.com <ahaynes@mcguirewoods.com>; nallaband@mcguirewoods.com <nallaband@mcguirewoods.com>; tloucks@Dewberry.com <tloucks@Dewberry.com>; adietrich@Dewberry.com <adietrich@Dewberry.com>; lucas.a.dupont@dominionenergy.com <lucas.a.dupont@dominionenergy.com>
Subject: Dominion Energy Virginia's Proposed 230 kV Lines #210 and #243 Extension and Proposed 230-34.5 kV Edsall Substation in Fairfax County, Virginia

To Whom It May Concern:

Please see the attached project agency notification for Dominion Energy Virginia's Certification of Public Convenience and Necessity (CPCN) application with the State Corporation Commission (SCC), associated project overview map, and a shapefile of the proposed project alignment centerline for the Dominion Energy Virginia Proposed 230 kV Lines #210 and #243 Extension and Proposed 230-34.5 kV Edsall Substation in Fairfax County, Virginia.

If you have any questions, please feel free to contact me directly.

Christa McDonald
Siting and Permitting Specialist
Electric Transmission

Dominion Energy Virginia
5000 Dominion Blvd, 3.SW3051
Glen Allen, VA 23060

C: 571-319-2582
Email: C.McDonald@dominionenergy.com
Website: https://www.dominionenergy.com

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

From: Warren, Arlene <arlene.warren@vdh.virginia.gov>
Sent: Tuesday, June 22, 2021 7:53 AM
To: Rachel.M.Studebaker@dominionenergy.com
Subject: [EXTERNAL] Re: FW: SCC Case No. PUR-2021-00010/DEQ21-013S

This is an EXTERNAL email that was NOT sent from Dominion Energy. Are you expecting this message? Are you expecting a link or attachment? DO NOT click links or open attachments until you verify them

The proposal from Dominion is reasonable and we consider it acceptable.

Best Regards,

Arlene Fields Warren

GIS Program Support Technician

Office of Drinking Water

Virginia Department of Health

109 Governor Street

Richmond, VA 23219

(804) 864-7781

On Thu, Jun 17, 2021 at 4:33 PM Rachel.M.Studebaker@dominionenergy.com <Rachel.M.Studebaker@dominionenergy.com> wrote:

Hello Ms. Warren,

I am reaching out in regard to the DEQ Report for SCC Case No. PUR-2021-00010/DEQ21-013S (230 kV lines #2113 and #2154 Transmission Line Rebuilds and Related Projects). As part of the VDH ODW review, it was recommended that all wells within a 1,000-foot radius of the project site be field marked and protected from accidental damage. It is our custom construction process to not conduct any work outside of the existing right-of-way (ROW), with the exception of entry using existing access roads, and use DEQ approved erosion and sediment controls. These well are located outside of the project area ROW on private land and Dominion Energy does not have permission to enter private property to field mark the wells.

Therefore, we are proposing to plot and call out the wells on the Erosion and Sediment control plans as a way of flagging them for the construction team for protection from accidental damage. Is this a sufficient approach to comply with the ODW recommendation?

Thank you,

Rachel Studebaker

Environmental Specialist II

Dominion Energy Services

120 Tredegar Street, Richmond, VA 23219

Office: (804) 273-4086

Cell: (804) 217-1847

#