

BEFORE THE  
STATE CORPORATION COMMISSION  
OF VIRGINIA

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

Lanexa-Northern Neck Line 230 kV Line #224 Rebuild and  
New 230 kV Line #2208

Application No. 301

**DEQ Supplement**

Case No. PUR-2020-00247



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Based upon consultations with the Virginia Department of Environmental Quality (“DEQ”), Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) has developed this DEQ Supplement to facilitate review and analysis of the proposed Project by DEQ and other relevant agencies.



## 1. Project Description

In order to maintain the structural integrity and reliability of its transmission system in compliance with mandatory North American Electric Reliability Corporation (“NERC”) Reliability Standards, as well as resolve a potential violation of planning criteria, Dominion Energy Virginia proposes, within New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia, the following (collectively, the “Project”):

- (i) Rebuild, entirely within existing rights-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa to Northern Neck Line #224, which is nearing its end of life, on new double circuit structures<sup>1</sup>;
- (ii) Install approximately 40.5 miles<sup>2</sup> of new 230 kV Lanexa to Northern Neck Line #2208 collocated on double circuit structures with Line #224;
- (iii) Perform expansion and installation work at the Company’s existing Lanexa and Northern Neck Substations and minor work at the Dunnsville Substation; and
- (iv) Perform minor transmission-related work on Lines #2016, #2076, #2113, and #2129.<sup>3</sup>

Line #224, which was constructed in 1969 predominately on wood H-frame structures and weathering steel towers, has been identified for rebuild based on the Company’s assessment in accordance with Dominion Energy Virginia’s mandatory electric transmission planning criteria (“Planning Criteria”). Additionally, a second 230 kV Lanexa to Northern Neck transmission line, Line

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<sup>1</sup> The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 (“Partial Rebuild Project”), which was approved and certificated by the State Corporation Commission (“Commission” or “SCC”) in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224. Additionally, the installation of a second 230 kV circuit over the Mattaponi River was approved under PUR-2018-00090. The Pamunkey River crossing work was completed in early Spring 2020, and the Mattaponi River crossing work is scheduled to be completed by December 2020.

<sup>2</sup> As part of the certificated Partial Rebuild Project, the Company will install approximately 0.8 mile of double circuit line along the Mattaponi River crossing as a 34.5 kV distribution feed designed to allow conversion to operation at 230 kV. Therefore, approximately 0.8-mile of the entire 41.3-mile length of the route will not require installation of a new second circuit as part of this Project, leaving approximately 40.5 miles.

<sup>3</sup> The Company considers the work associated with these transmission lines to qualify as “ordinary extensions or improvements in the usual course of business” pursuant to § 56.265.2 A 1 of the Code of Virginia (“Va. Code”) and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a certificate of public convenience and necessity (“CPCN”) from the Commission. Should the Commission determine that CPCNs are required for the work, the Company requests that the Commission grant such CPCNs as part of its final order in this proceeding. See n. 3 and Section I.F of the Appendix filed contemporaneously with this DEQ Supplement in this proceeding.



#2208, is needed to resolve a potential violation of PJM Interconnection, L.L.C. (“PJM”) and Dominion Energy Planning Criteria. The existing wood H-frame structures will generally be replaced with double circuit weathering steel monopoles. Lattice towers in the Rappahannock River will be replaced; however, the new structures will be rebuilt on the existing foundations.

The existing right-of-way for the Project, which is primarily 120 feet wide,<sup>4</sup> traverses New Kent, King William, King & Queen, Essex, and Richmond Counties. The right-of-way has been in continuous use since the original 1969 construction. The general character of the Project area is predominantly rural.

## **2. Environmental Analysis**

The Company solicited comments from all relevant state and local agencies about the proposed Project in September 2020. Copies of these letters are included as Attachment 2. The DEQ provided a letter in response to the Company’s scoping request for the proposed Project on September 10, 2020. A copy of this letter is included as Attachment 2.A.1.

### **A. Air Quality**

The Company will control fugitive dust during construction in accordance with DEQ regulations. During construction, if the weather is dry for an extended period of time, there will be airborne particles from the use of vehicles and equipment within the right-of-way. However, minimal earth disturbance will take place and vehicle speed, which is often a factor in airborne particulate, will be kept to a minimum. Erosion and sediment control is addressed in Section 2.G, below. 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.

The entire width of the existing transmission corridor is currently maintained for transmission facility operations. However, the Project may require some trimming of tree limbs along the right-of-way edges to support construction activities. The Company does not expect to burn cleared material, but if necessary, the Company will coordinate with the responsible locality to ensure all local ordinances are met. The Company’s tree clearing methods are described in Section 2.K.

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<sup>4</sup> As shown in Attachments II.A.5.a-b of the Appendix, there are two spans with a right-of-way width of 170 feet. In addition, as shown in Attachments II.A.5.g-j of the Appendix, there are nine spans with a right-of-way width of 180 feet.



**B. Water Source (No water source is required for transmission lines so this discussion will focus on potential waterbodies to be crossed by the Project.)**

The Project is located within the Lower James River Hydrologic Unit Code (HUC) 02080206, Pamunkey HUC 02080106, Mattaponi HUC 02080105, Great Wicomico-Piankatank HUC 02080102, and the Lower Rappahannock watershed HUC 02080104. According to the U.S. Geological Survey (“USGS”) topographic quadrangles (Walkers [1965, Rev 1981], New Kent [1965, Rev 1978], King and Queen Court House [1968, Rev 1981], Truhart [1970, Rev 1989], Dunnsville [1968, Rev 1985], Tappahannock [1968, Rev 1989], and Haynesville [1968, Rev 1981]), the existing transmission line crosses 14 named perennial streams and rivers and one reservoir, including: Diascund Creek Reservoir, Timber Swamp, Beaver Dam Creek, Pamunkey River, Mill Creek, Bull Swamp, Mattaponi River, Courthouse Creek, Exol Swamp, Dragon Swamp, Mill Creek, Bellview Creek, Rappahannock River, and Totuskey Creek..

Any clearing required in the vicinity of streams will be performed by hand within 100 feet of both sides, and vegetation less than three inches in diameter will be left undisturbed.

The Company solicited comments from the Virginia Marine Resources Commission (“VMRC”) regarding the proposed Project in September 2020. VMRC responses have typically noted a subaqueous encroachment permit would be required for any stream crossings with a drainage area of five square miles or greater at the crossing location. If necessary, a Joint Permit Application will be submitted for review by the VMRC, DEQ, and the U.S. Army Corps of Engineers (the “Corps”) to authorize jurisdictional crossings and for any impacts to jurisdictional features.

**C. Discharge of Cooling Waters**

No discharge of cooling waters is associated with the Project.

**D. Tidal and Non-tidal Wetlands**

Tidal wetlands were identified within the proposed Project area at the Pamunkey, Mattaponi, and Rappahannock Rivers and Totuskey Creek. Coordination with the New Kent, King William, King and Queen, Essex, and Richmond County Wetlands Boards will occur before any work within tidal wetlands under their jurisdiction.

**Wetlands Impact Consultation**

Within portions of the Project right-of-way, wetlands and other waters of the United States were delineated previously and received confirmation by the Corps under the Line #224 Partial Rebuild Projects (NAO-2018-00662 NAO-2018-00660; NAO-2018-00661; NAO-2018-00656) and the 157 Carlton’s Corner



Road Project (NAO-2019-01845). Within the rest of the right-of-way, the Company delineated wetlands and other waters of the United States and submitted the results of this delineation to the Corps in October 2020 for confirmation. A copy of the delineation map is included as Attachment 2.D.1. All delineations were conducted using the *Routine Determination Method* as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). Total jurisdictional resources within the proposed Project right-of-way are provided in Table 1.

**Table 1. Jurisdictional Resources within Project Right-of-Way**

<b>Resource</b>	<b>Previously Confirmed Acreage (±)</b>	<b>Pending Confirmation Acreage (±)</b>	<b>Total Acreage (±)</b>
Estuarine Emergent Wetlands	11.40	9.93	21.33
Estuarine Scrub- Shrub Wetlands	-	0.03	0.03
Tidal Palustrine Emergent Wetland	-	1.38	1.38
Non-tidal Palustrine Emergent Wetland	10.30	73.52	83.82
Palustrine Scrub-Shrub Wetland	3.69	9.56	13.24
Palustrine Forested Wetland	0.02	0.03	0.05
Unconsolidated Bottom Subtidal Estuarine Wetlands	5.82 (8,851 linear feet)	20.61 (1,104 linear feet)	26.42 (9,955 linear feet)
Riverine Tidal Unconsolidated Bottom	2.86 (140 linear feet)	-	2.86 (140 linear feet)
Lower Perennial Stream	-	0.39 (1,989 linear feet)	0.39 (1,989 linear feet)



<b>Resource</b>	<b>Previously Confirmed Acreage (±)</b>	<b>Pending Confirmation Acreage (±)</b>	<b>Total Acreage (±)</b>
Upper Perennial Stream	0.05 (573 linear feet)	0.32 (3,523 linear feet)	3.22 (7,060 linear feet)
Intermittent Stream	-	0.48 (8,832 linear feet)	0.48 (8,832 linear feet)
Ephemeral Stream	-	0.01 (154 linear feet)	0.01 (154 linear feet)
Jurisdictional Ditch	-	0.05 (520 linear feet)	0.05 (520 linear feet)
Non-tidal Open Water	0.41	3.81	4.22

In a letter dated October 5, 2020, DEQ provided comments on the Project including the avoidance and minimization of impacts to wetlands and what permits may be required (Attachment 2.D.2). The Company intends to adhere to DEQ's comments. Prior to construction, the Company will obtain any necessary permits to impact jurisdictional resources.

#### **E. Solid and Hazardous Waste**

On behalf of the Company, Stantec Consulting Services Inc. ("Stantec") conducted database searches for solid and hazardous wastes and petroleum release sites within a 0.5-mile radius (the "search radius") of the proposed Project to identify sites that may impact the proposed Project. This report is included as Attachment 2.E.1. Publicly available data from the U.S. Environmental Protection Agency ("EPA") Facility Registry System was obtained, which provides information about facilities, sites, or places subject to environmental regulation or of environmental interest. Although this data set contains all sites subject to environmental regulation by the EPA or other regulatory authorities, including sites that fall under air emissions or wastewater programs, the results reported here only include those sites which fall under the EPA's hazardous waste, solid waste, remediation, and underground storage tank programs (*i.e.*, Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), Resource Conservation and Recovery Act ("RCRA"), or brownfield sites). According to this database zero registered RCRA sites are present within the Project limits.

DEQ records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites and petroleum releases. One closed solid waste facility is located in Richmond County and approximately 480



feet from the Project centerline. DEQ identified 19 petroleum release sites within the search radius, none of which fall within the right-of-way of the Project. These petroleum release sites may include aboveground and underground storage tank releases, as well as aboveground spills. The Company has a procedure in place to handle petroleum contaminated soil, if encountered; however, as all of the release sites are located outside of the Project area, none of the petroleum release sites are expected to impact the Project. A table listing these sites is included in Attachment 2.E.1.

## **F. Natural Heritage, Threatened and Endangered Species**

On behalf of the Company, Stantec conducted online database searches for threatened and endangered species in the vicinity of the Project, including the U.S. Fish and Wildlife Service (“USFWS”) Information, Planning, and Conservation system, the Virginia Department of Wildlife Resources (“DWR”) Virginia Fish and Wildlife Information Service (“VAFWIS”), Virginia Department of Conservation and Recreation (“DCR”), Natural Heritage Data Explorer (“NHDE”), and the Center for Conservation Biology (“CCB”) Bald Eagle Nest Locator. The results are summarized in a report, included as Attachment 2.F.1., and are presented in the table below.

**Table 2. Threatened and endangered species potentially within the Project vicinity**

<b>Species</b>	<b>Results</b>	<b>County Occurrence</b>
Northern long-eared bat ( <i>Myotis septentrionalis</i> )  Status: FT, ST Database: USFWS-IPaC, DWR-NLEB Winter Habitat and Roost Tree Map	Identified as potentially occurring in the project vicinity. No known hibernacula or maternity roost trees in the vicinity of the project.	New Kent, King William, King and Queen, Essex, Richmond
Sensitive joint-vetch ( <i>Aeschynomene virginica</i> )  Status: FT, ST Database: USFWS-IPAC, DCR-NHR	Identified as potentially occurring in the vicinity of the project.	New Kent, King William, King and Queen, Essex, Richmond
Atlantic sturgeon ( <i>Acipenser oxyrinchus</i> )  Status: FE, SE Database: DWR-VAFWIS; DCR-NHR	Identified as potentially occurring near the project area. The Pamunkey, Mattaponi, and Rappahannock Rivers are designated as critical habitat.	New Kent, King William, King and Queen, Essex, Richmond
Small whorled pogonia ( <i>Isotria medeoloides</i> )	Potentially occurring near the project area.	New Kent, King William, King and Queen, Essex, Richmond



Status: FT, SE Database: USFWS-IPAC		
Eastern black rail ( <i>Laterallus jamaicensis</i> ) Status: FPT, SE Database: DWR-VAFWIS	Potentially occurring near the project area.	Essex, Richmond
Henslow's sparrow ( <i>Ammodramus henslowii</i> ) Status: ST Database: DWR-VAFWIS	Confirmed within two miles of the project area.	New Kent, King William, Essex, Richmond
Mabee's salamander ( <i>Ambystoma mabeei</i> ) Status: ST Database: DWR-VAFWIS	Predicted habitat within James City County within 2 miles of the project	James City County
Narrow-leaved spatterdock ( <i>Nuphar sagittifolia</i> ) Status: ST Database: DCR-NHR	Identified as potentially occurring in the vicinity of the project.	New Kent
Bald eagle ( <i>Haliaeetus leucocephalus</i> ) Status: BGEPA Database: CCB, USFWS-Bald Eagle Concentration Area Map	Nest located 273 ft from the project area in New Kent County. Nest located 470 ft from the project area in Richmond County.	New Kent, Richmond

FT: federally threatened, FPT: federally proposed threatened; FE: federally endangered, ST: state threatened, SE: state endangered, BGEPA: Bald and Golden Eagle Protection Act

The federally and state threatened northern long-eared bat (*Myotis septentrionalis*) 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 the Project vicinity. Since the Project will occur within an existing maintained right-of-way, tree removal is expected to be limited to danger trees and limbing. The clearing is proposed to occur outside the time of year restriction for northern long-eared bat (June 1 – July 31) described under the 4(d) rule; as such, no adverse effects are anticipated to the northern long-eared bat.

The federally and state endangered Atlantic sturgeon has been identified by



USFWS and DWR as occurring within the segments of the Pamunkey, Mattaponi, and Rappahannock Rivers. The National Marine Fisheries Service (“NMFS”) has designated these river segments as critical habitat for the Atlantic sturgeon; however, crossings of the Pamunkey and Mattaponi Rivers were previously authorized by the Commission under Case No. PUR-2018-00090 and no instream work will occur. For this Project, structures within the Rappahannock River will be rebuilt on the existing foundations and no in-water work related to pile driving will occur. No in-stream work will occur during the time-of-year-restriction of February 15 to June 30. Erosion and sediment control measures will be utilized throughout the Project to prevent sedimentation of downstream waters; as such, no adverse effects are anticipated to the Atlantic sturgeon and no adverse modification is expected of the designated critical habitat.

USFWS and DCR have identified the sensitive joint-vetch (*Aeschynomene virginica*) and small whorled pogonia (*Isotria medeoloides*) as potentially occurring within the Project area. The sensitive joint-vetch is federally and state threatened, while the small whorled pogonia is federally threatened and state endangered. The sensitive joint-vetch inhabits freshwater tidal wetlands. If construction access will be required through freshwater tidal wetlands, the Company will survey the area for sensitive joint-vetch and coordinate with USFWS and DCR on the results. The small whorled pogonia may be found in mixed-deciduous or mixed-deciduous/coniferous forests. The Project will occur within existing maintained transmission easement; therefore, no forested areas occur within the Project area. Neither the sensitive joint-vetch or small whorled pogonia are expected to be adversely affected by the Project.

VAFWIS-DWR also identified predicted habitat for the federally proposed threatened and state endangered eastern black rail (*Laterallus jamaicensis*) and state threatened Henslow’s sparrow (*Ammodramus henslowii*) within the Project area along the Rappahannock River in Richmond County. The eastern black rail inhabits primarily saltwater marshes, but can also be found in freshwater marshes. The Henslow’s sparrow prefers habitats of unmowed grassy or weedy hayfields. Construction of the Project will not result in a change of the existing habitat within the right-of-way. While DWR has not yet provided specific comments on the Project, their standard time-of-year restriction recommendation to protect these species is for no construction to occur between April 1 and August 31. The Company is evaluating the Project schedule to see what construction activities may need to occur during this time period and will coordinate with DWR, as necessary.

The DWR database indicated the potential presence of the state threatened Mabee’s salamander (*Ambystoma mabeei*) at the southern end of the Project. The Mabee’s salamander is found in wetland and ephemeral habitats in both wooded and open areas. DWR predicted Mabee’s salamander habitat within James City County which is within two miles of the Project area. There is no predicted Mabee’s salamander habitat in New Kent County where the Project is located.



The DCR Natural Heritage Resource (“DCR-NHR”) database indicated the narrow-leaf spatterdock (*Nuphar sagittifolia*) may potentially occur near the Project area. This species prefers freshwater, intertidal guts of the upper Pamunkey and Mattaponi Rivers. DCR did not provide any comments pertaining to narrow-leaf spatterdock at either river crossing for this Project or the partial rebuild authorized under Case No. PUR-2018-00090. Under this Project, no work will occur within the Mattaponi River since both Line #224 and the second circuit were authorized under Case No. PUR-2018-00090. Therefore, the Project is not likely to adversely affect the narrow-leaf spatterdock.

According to the CCB Bald Eagle Nest Locator database, bald eagle nest NK0801, in New Kent County, is located within 273 feet of the proposed Project; however, the nest has not been occupied since 2011. Additionally, bald eagle nest RI8902, in Richmond County, is located approximately 470 feet from the Project area; however, the nest has not been occupied since 2015. The DWR recommends no construction within 660 feet of an active bald eagle nest between December 15 and July 15 to avoid the potential for disturbance to nesting eagles. If the Company is unable to avoid construction within 660 feet of the bald eagle nest between December 15 and July 15, the Company will coordinate with USFWS and DWR to determine whether an incidental take permit may be required for disturbance of eagles.

The Company requested comments from the USFWS, DWR, and DCR regarding the proposed Project in September 2020. The response from DWR is included as Attachment 2.F.2. As the Company will obtain all necessary permits prior to construction, such as authorization from the VMRC, DEQ, and the Corps, coordination with the DWR, DCR, and USFWS will take place through the respective permit processes to avoid and minimize impacts to listed species and natural heritage resources.

The response from DCR is included as Attachment 2.F.3. DCR comments on natural heritage resources, which are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations. Comments and recommendations from DCR are organized by USGS quadrangles. Applicable company responses follow.

#### Haynesville, Tappahannock and New Kent Quads

Within the Haynesville, Tappahannock and New Kent Quads, DCR noted that natural heritage resources have not been documented within the Project, including a 100-foot buffer. Additionally, the Project does not intersect any of the predictive models identifying potential habitat for natural heritage resources.



#### Dunnsville Quad

DCR noted that there is potential for the state rare Robust baskettail (*Epitheca spinosa*, G4/S2S3/NL/NL) to occur at the crossing of Dragon Swamp if suitable habitat exists. DCR recommends an inventory for Robust baskettail.

#### Truhart Quad

The Exol Swamp Stream Conservation Unit (“SCU”) is located within the Project. SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. The Exol Swamp SCU has been given a biodiversity ranking of B3, which represents a site of high significances. The natural heritage resource associated with this site is Aquatic Natural Community (NC-Great Wicomico-Piankatank First Order Stream), which is G3/S3/NL/NL. The stream is a grade B, per the Virginia Commonwealth University (“VCU”)-Center for Environmental Sciences (“CES”), indicating its relative regional significance, considering its aquatic community composition and the present-day conditions of other streams in the region. The stream also holds a “Healthy” stream designation per the VCU INSTAR (Interactive Stream Assessment Resource) Virtual Stream Assessment (“VSS”) score. The score assesses the similarity of this stream to ideal stream conditions of biology and habitat for the region. Finally, the stream contributes to high Biological Integrity at the watershed level based on the number of native/non-native, pollution-tolerant/intolerant and rare, threatened or endangered fish and macroinvertebrate species present. Additionally, DCR noted the potential for Robust baskettail to occur at Exol Swamp if suitable habitat exists. DCR recommends an inventory for Robust baskettail at Exol Swamp.

#### King and Queen Courthouse Quad

The Gleason Marsh Conservation Site is located within the Project. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element’s conservation. The Gleason Marsh Conservation Site has been given a biodiversity significance ranking of B2, which represents a site of very high significance. The natural heritage resource of concern at this site is tidal oligohaline marsh (Big Cordgrass Type), which is G4/S4/NL/NL.

#### Walkers Quad

The Beaverdam Creek SCU and the Chickahominy River – Shipyard Creek – Diascund Creek SCU are located within the Project. The Beaverdam Creek SCU has been given a biodiversity ranking of B3, which represents a site of high significance. The natural heritage resource associated with this site is: Aquatic Natural Community (NC-Lower James Third Order Stream), which is



G2G3/S2S3/NL/NL. This stream reach holds a “Healthy” stream designation per the INSTAR VSS score. This stream also contributes to high Biological Integrity at the watershed level.

The Chickahominy River – Shipyard Creek – Diascund Creek SCU has been given a biodiversity ranking of B2, which represents a site of very high significance. The natural heritage resources associated with this site are:

<i>Bacopa innominata</i>	Tropical water-hyssop	G3G5/S2/NL/NL
<i>Eriocaulon parkeri</i>	Parker’s pipewort	G3/S2/NL/NL
<i>Isoetes hyemalis</i>	Winter quillwort	G2G3/S2/SOC/NL
<i>Nuphar sagittifolia</i>	Narrow-leaved spatterdock	G3G5/S1S2/NL/NL
<i>Cabomba caroliniana</i>	Carolina fanwort	G3G5/S1S2/NL/NL
<i>Regina rigida</i>	Glossy Crayfish snake	G5/S1/NL/NL
Aquatic Natural Community (NC-Lower James Fourth Order Stream)		G2?/S2?/NL/NL

#### Company Comment

No instream work will be required for the transmission structures and construction access is expected to span streams using crane mats or bridges. Additionally, since no additional right-of-way clearing will be required for transmission line operation and erosion and sediment control measures will be implemented (Section 2.G), adverse effects to the stream conservation units are not expected. Similarly, timber matting will be used to access transmission structures within the Gleason Marsh Conservation Site and no adverse effects to the conservation site are anticipated. Exol Swamp will be spanned by the transmission line, with no work proposed within potential habitat for the Robust baskettail. Two structures will require replacement within Dragon Swamp. A matting system designed to minimize impact to flooded wetland systems will be used to access these structures from either side of the crossing. No permanent loss of habitat will result from the Project. The Robust baskettail is not a federal or state threatened or endangered species but is considered rare by DCR, which has no official legal status. The Company agrees to provide its construction team with information about the Robust baskettail prior to the commencement of construction activities and agrees to coordinate with DCR if this species is found within the Project area. Therefore, the Company respectfully requests that the State Corporation Commission not accept the DCR’s recommendation for an inventory in light of the Robust baskettails status under the Endangered Species Act and Endangered Plant and Insect Species Act.

New and updated information is continually added to the DCR’s Biotics database.



Following the DCR-DNH SCC planning stage project review, the Company shall re-submit project information with completed information services order form and a map to DCR-DNH or submit the project or submit the project on-line through the Natural Heritage Data Explorer. This review shall occur during the final stage of engineering and upon any major modifications of the project during construction (i.e., deviations, permanent, or temporary, from the original study area and/or the relocation of a tower(s) into sensitive areas) for an update on natural heritage information and coordination of potential project modifications to avoid and minimize impacts to natural heritage resources.

#### **G. 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 August 13, 2019, is provided as Attachment 2.G.1. According to the approval letter, coverage was effective through August 12, 2020. The Company submitted the renewal application on August 3, 2020 and is awaiting approval.

#### **H. Archaeological, Historic, Scenic, Cultural or Architectural Resources**

The Company requested comments from the Virginia Department of Historic Resources ("VDHR") in September 2020. In a response dated September 28, 2020 (Attachment 2.H.1), VDHR provided general comments on the Project, including a recommendation to conduct a Stage I Pre-Application Analysis and noting that once an alternative is approved by the Commission, VDHR is likely to recommend full architecture and archaeological studies and mitigation of all moderate to severe impacts to Virginia Landmarks Register ("VLR")/ National Register of Historic Places ("NRHP") -eligible resources. VDHR also noted that seven federally recognized tribes, the Chickahominy, Eastern Chickahominy, Pamunkey, Rappahannock Upper Mattaponi, Catawba, and Delaware claim ancestral ties to the general area, and recognize traditional cultural properties ("TCP") in the vicinity of the Project. VDHR encouraged the Company to reach out to the tribes to ensure full consideration of any concerns they may have about impacts to tribal resources. As part of the Project, the Company solicited comments via email from several federally- and state-recognized Native American tribes, including Cheroenhaka, Chickahominy, Mattaponi, Monacan, Nansemond, Nottaway, Pamunkey, Rappahannock, Upper Mattaponi, and Chickahominy Tribe – Eastern Division. Copies of this correspondence is provided as Attachment III.J.1 in the Appendix.

Stantec was retained by the Company to conduct a Stage I Pre-Application Analysis for the proposed Project. This analysis was completed in October 2020 and submitted to the VDHR. The report is included as Attachment 2.H.2.



Preliminary background research was conducted pursuant to the *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (VDHR 2008) for proposed transmission line improvements. As detailed by VDHR guidance, consideration was given to: National Historic Landmark (“NHL”) properties located within a 1.5-mile radius of the Project centerline; NRHP-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the Project centerline; NRHP-eligible sites located within a 0.5-mile radius of the Project centerline; and archaeological sites located within the Project right-of-way.

### Archaeological Resources

A total of one previously identified archaeological site was identified within the existing right-of-way. The archaeological site has not been evaluated for listing on the NRHP by VDHR. The table below provides archaeological resources within the Project right-of-way.

Archaeological resources within the Project Right-of-Way

VDHR #	Resource Name	VDHR/NRHP Status
44RD0025	Woodland Terrestrial, open air site	Not Evaluated

### Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile radius of the Project centerline. Three NRHP-listed resources, one battlefield, and four resources determined eligible for listing on the NRHP were identified in the 0.5-mile buffer of the Project centerline. Additionally, the Captain John Smith Chesapeake National Historic Trail is crossed by the Project. Distances of architectural resources to the proposed Project are provided in the table below.

NRHP listed and eligible resources within 1.0-mile of the Project

VDHR #	Resource Name	VDHR/NRHP Status	Distance to Centerline (Miles)
049-0064	Rose Garden, Carlton’s Corner Road	Eligible	0.39
049-0036	King and Queen County Court House, Court House Landing Road	Eligible	0.23
049-0035	Immanuel Chapel, 190 Allens Circle	Eligible	0.25



<b>VDHR #</b>	<b>Resource Name</b>	<b>VDHR/NRHP Status</b>	<b>Distance to Centerline (Miles)</b>
050-0067	Sweet Hall, Route 634	NRHP-Listed, VLR-Listed	0.04 <sup>5</sup>
050-0070	Ruffin's Ferry/Windsor Shade, 1685 Sweet Hall Road	NRHP-Listed, VLR-Listed	0.21 <sup>6</sup>
049-5001	King and Queen County Courthouse Green Historic District	NRHP-Listed, VLR-Listed	0.13
049-5007	Mantapike Hill/Walkerton Battlefield	Eligible	0.05
N/A	Captain John Smith Chesapeake National Historic Trail	Not Evaluated within the APE	0

### **I. Chesapeake Bay Preservation Areas**

Construction, installation, operation, and maintenance of electric transmission lines are conditionally exempt from the Chesapeake Bay Preservation Act ("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.

### **J. Wildlife Resources**

Agency databases were reviewed and agency consultations initiated with the USFWS, DWR, and DCR to determine if the proposed Project has the potential to affect any threatened or endangered species. As discussed in Section 2.F, 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 surveys are necessary and to minimize impacts on wildlife resources. Since the proposed Project is a rebuild of a transmission line and addition of a second circuit within existing right-of-way, no loss of wildlife habitat is anticipated.

### **K. Recreation, Agricultural and Forest Resources**

The Project is expected to have minimal permanent impacts on recreational, agricultural, and forest resources since no additional right-of-way is required. The

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<sup>5</sup> Existing Line #224 is located within Sweet Hall; however, the structures within the resource were rebuilt under Case No. PUR-2018-00090. Distance given in this table is to nearest structure to be rebuilt under this application since visual impacts to the resource would be related to the replacement structure.

<sup>6</sup> Existing Line #224 is located immediately adjacent to Ruffin's Ferry; however, the structures nearest to Ruffin's Ferry were rebuilt under Case No. PUR-2018-00090. Distance given in this table is to nearest structure to be rebuilt under this application since visual impacts to the resource would be related to the replacement structure.



general character of the Project area is predominantly rural with agricultural uses.

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 ordinance. A total of 346.39 acres of prime farmland, 24.05 acres of prime farmland if drained, and 0.47 acre of prime farmland if irrigate are located within the Project right-of-way. A total of 186.94 acres of farmland of statewide importance are located within the Project right-of-way. Within the existing right-of-way, areas of prime farmland and farmland of statewide importance are currently in agricultural use. As agricultural activities have been occurring within the right-of-way while the existing transmission line has been in operation, the Project would not be expected to impact prime farmlands or farmland of statewide importance. Neither New Kent County, King William County, King and Queen County, Essex County, or Richmond County have designated important farmland of local importance within their jurisdiction. Existing Project right-of-way is within the Cooks Mill Agricultural and Forestal District in New Kent County.

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. Such conservation easements must be held for no less than five years in duration and can be held in perpetuity. Five conservation easements occur within the right-of-way (Parcel Identification Numbers 52 1, 24 34L 349 & 24 35R 616, 48-32A & 48-33, 55-33 & 55-32, and 45-22), and 18 additional easements occur within one mile of the proposed Project. The conservation easements within the right-of-way are held by the Historic Virginia Land Conservancy, Virginia Department of Forestry (“DOF”), Virginia Outdoors Foundation (“VOF”), and The Nature Conservancy (“TNC”). The initial construction of Line #224 and acquisition of Company easements for the right-of-way preceded the designation of these conservation easements. The proposed Project is the rebuild of an existing transmission line and addition of a new second circuit with no additional right-of-way is required. The Company solicited comments from the DOF, VOF, TNC, and the Historic Virginia Land Conservancy in letters sent in September 2020. In a letter dated October 8, 2020, the VOF concluded that the project will not negatively impact any vicinity VOF easements. (Attachment 2.K.1).



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. At the location of existing crossing to be rebuilt, Dragon Run has been determined to be a river qualified to be designated as a scenic river. Additionally, the Project crosses the Rappahannock River which has been designated as a river potentially qualified for designation. The Pamunkey River and Mattaponi River have been designated as potential eligibility for listing as state scenic rivers. The Line #224 crossing of these rivers was previously approved for rebuild by the Commission under Case No. PUR-2018-00090.

The Project crosses State Route 14, which has been designated as a Virginia Byway. The Company will coordinate with the Virginia Department of Transportation and will explore mitigation measures if necessary. The Rappahannock River, Pamunkey River, and Mattaponi River have been designated as part of the Captain John Smith Chesapeake National Historic Trail, which is a waterway trail that commemorates the 1607 to 1609 explorations journeys of Captain John Smith. The transmission structures within the Rappahannock River will be replaced; however, structures will be rebuilt on the existing foundations with structure heights and materials similar in nature to the existing structures. The structures crossing the Pamunkey and Mattaponi Rivers were approved for rebuild by the Commission under Case No. PUR-2018-00090.

The Project crosses through one property owned by the City of Newport News, Diascund Reservoir. The existing right-of-way does not cross any other parks or similar facilities.

**Table 5. Parks within 1.0-mile of the Project**

<b>Park Name</b>	<b>Management Agency</b>	<b>Distance to Centerline (Miles)</b>
Diascund Creek Reservoir	City of Newport News	w/in right-of-way
Diascund Reservoir Park, Boat Landing	City of Newport News, James City County, and DWR	0.93
Sweet Hall Marsh- National Estuarine Research Reserve	Virginia Institute of Marine Science and the College of William and Mary	0.16

In September 2020, the Company solicited DCR for comments on the proposed Project. In an email dated September 16, 2020, DCR stated that the proposed Project would not impact any planning and recreational resources that they track (Attachment 2.K.2).

The entire width of the existing transmission corridor is currently cleared and



maintained for 230 kV transmission facility operations. However, the Project may require some trimming of tree limbs along the right-of-way edges to support construction activities. Trees and brush located within 100 feet of streams will be cleared by hand in accordance with the Company approved Erosion and Sediment Control specifications.

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 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 have minimal, if any, impact on agricultural or forest resources as the proposed Project involves rebuilding a portion of an existing line which is already cleared and maintained for existing facility operation and no additional right-of-way is required.

#### **L. Use of Pesticides and Herbicides**

Of the techniques available, selective foliar is the preferred method of herbicide application. The Company typically maintains transmission line right-of-way by means of selective, low volume applications of EPA approved, non-restricted use herbicides. The goal of this method is to exclude tall growing brush species from 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. However, 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.

#### **M. Geology and Mineral Resources**

According to the Division of Geology and Mineral Resources Interactive Geologic Map, the Project area consists primarily of sands, silts, clays, gravel,



mud, and alluvium. According to the USGS topographic maps and aerial imagery, there are no active mines or stone quarries within the limits of the Project. A search of the Virginia Department of Mines, Minerals, and Energy online map confirms there are no active or abandoned mines within the right-of-way. There is one active sand mine within a 1.0-mile radius of the right-of-way. Coordinates of this mine is provided in Table 6. The Company does not anticipate that the Project will result in negative impacts on the geology or mineral resources in the area.

**Table 6. Mines within 1.0-Mile of Project Centerline**

<b>Mine ID</b>	<b>Mineral</b>	<b>Status</b>	<b>Latitude</b>	<b>Longitude</b>
90451AA	Sand	Active	37.621614	-76.902113

## **N. Transportation Infrastructure**

The existing variable width transmission line corridor extends approximately 41 miles northeast from the Company’s existing Lanexa Substation in New Kent County, Virginia, crossing 44 public and private roads before terminating at the existing Northern Neck Substation, located in Richmond County, Virginia. Roads within the Project area range from low traffic volume county roads to rural arterials to limited access highways. Major roads crossed by the right-of-way include:

- Pocahontas Trail (Route 60),
- North Waterside Drive (Route 627),
- Interstate 64,
- Stage Road (Route 632),
- New Kent Highway (Route 249),
- King William Road (Route 30),
- The Trail (Route 14),
- Howerton Rd (Route 684),
- Tidewater Trail (US-17), and
- History Land Highway (Route 3).

The Company plans to apply for land use permits from the Virginia Department of Transportation (“VDOT”) for the aerial crossings of VDOT maintained roads and any construction entrances from the VDOT right-of-way. All permits will be obtained prior to construction. The Company will prepare traffic control plans and submit to VDOT for approval concerning the line pull over I-64, which is a limited access road. In September 2020, the Company solicited VDOT for comments on the proposed Project.

The existing Project right-of-way crosses one railroad – operated by Norfolk Southern. The Company will coordinate with the railroad as necessary to obtain permits; however, it is not anticipated that the proposed Project will affect



railroad facilities or conflict with their operation.

The Company solicited comments from the Virginia Department of Aviation (“DOAv”) regarding the proposed Project. The DOAv responded via a letter dated September 15, 2020 stating that the Project is located within 20,000 linear feet of the Tappahannock Essex Airport<sup>7</sup>. There will be a requirement for the Company to submit Form 7460 to the Federal Aviation Administration (“FAA”) to initiate an aeronautical study. This response is included as Attachment 2.N.1. The design of the proposed Project must prevent interference with pilots’ safe ingress and egress at the airport. Such hazard or impediments include interference with navigation and communication equipment and glare from materials and external lights.

Finally, the Company has reviewed the FAA’s website (<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>) to identify airports within 10 miles of the Project. Based on this review, two FAA-restricted airports are located within 10 miles of the Project:

- Middle Peninsula Regional Airport, approximately 8 nautical miles east of the Lanexa substation,
- Tappahannock-Essex County Airport, approximately 5.6 nautical miles northwest of the line.

Five private airports/helipads are located within 10 miles of the line and the Company will work with private entities as appropriate.

- Shandy Hall Farm Airport, approximately 2 miles south of the line;
- Folly Neck Airport, approximately 1.4 miles southeast of the line;
- Lee Field Airport approximately 3 miles east of the line;
- Branham Mill Airpark Airport, approximately 1 mile north of the line; and
- Tappahannock Hospital Heliport, approximately 5 miles northwest of the line.

The Company will coordinate with VDOT, the railroads, DOAv, and the FAA as necessary to obtain all appropriate permits.

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<sup>7</sup> The DOAv noted that the Project was within 20,000 linear feet of the Tappahannock Essex Airport. Using the FAA airport tool, it appears that this airport is closer to 30,000 linear feet from Project. In any case, Form 7460 will be filed to evaluate obstructions.



## **Attachments**





September 4, 2020

**BY EMAIL**

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

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Bettina Rayfield,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
- ii. Install 40.5 miles of a new 230 kV Lanexa-Northern Neck Transmission Line collocated on double circuit structures with Line #224. This includes the addition of a second circuit to 1.29 miles of previously replaced single-circuit structures across the Pamunkey River (Partial Rebuild Project, Case No. PUR-2018-00090). The Mattaponi River crossing will already have both circuits installed as part of the Partial Rebuild Project;
- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.



Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

The Company is preparing an application for Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”). Pursuant to Va. Code §15.2-2202, the Company is writing to notify you of the proposed Rebuild Project in advance of this SCC filing. We respectfully request that you submit any comments or additional information you feel would have bearing on the Project within 30 days of the date of this letter. Enclosed is a Project Location Map depicting the rebuild route and project location.

If you would like to receive a GIS shapefile of the rebuild route to assist in your project review or if you have any questions, please do not hesitate to contact Rachel Studebaker at (804) 217-1847 or [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@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**



Richard B. Gangle  
Director, Environmental Services

Enclosure:     Project Overview Map



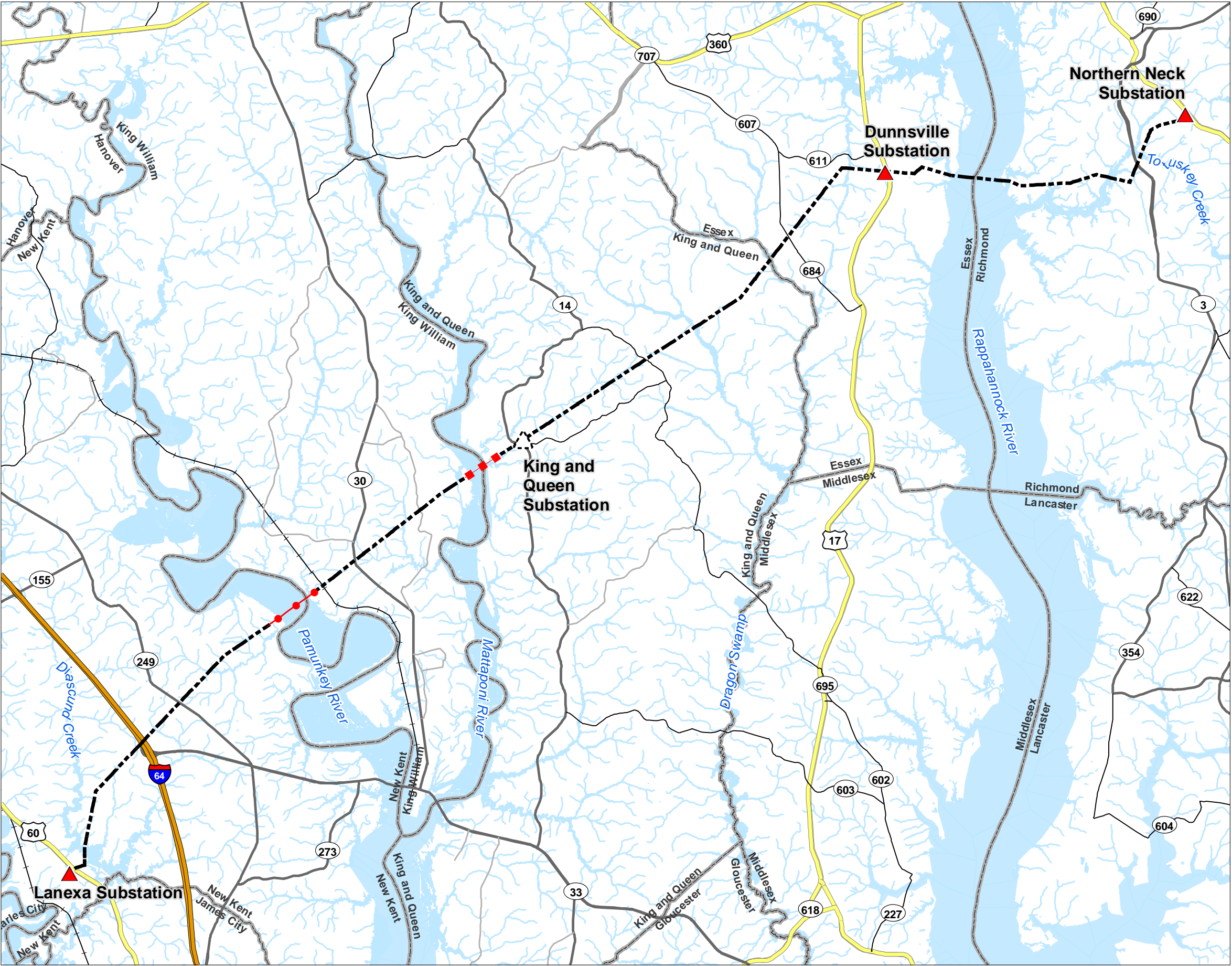


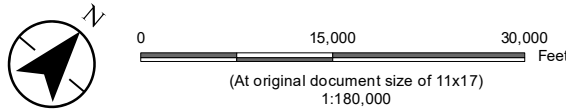
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Title **Notification Map**

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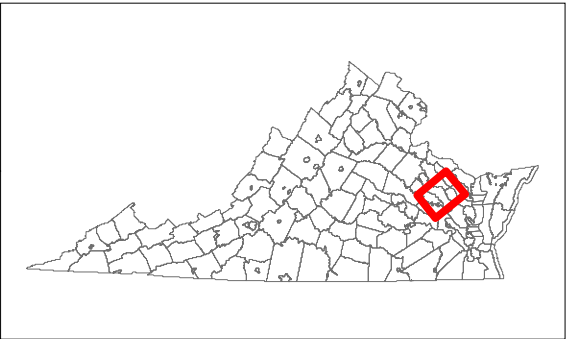
Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line #224  
Rebuild and New 230 kV Line

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Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2019-11-11  
TR by ECL on 2019-01-22  
IR by CPG on 2019-02-14



- ▲ Substation
- ▲ Proposed Substation
- Proposed 230 kV Line Rebuild and New 230 kV Circuit
- Project Centerline, Second Circuit Only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Railroad
- Freeway or Other Major Road
- Other Major Road
- Secondary Road
- Local Connecting Road
- Important Local Road



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, ESRI, NHD, DCR, U.S. National Transportation Atlas Railroads



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September 4, 2020

**BY EMAIL**

Ms. Robbie Rhur  
Department of Conservation and Recreation, Planning Bureau  
600 East Main Street, 17th Floor  
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Robbie Rhur,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
- ii. Install 40.5 miles of a new 230 kV Lanexa-Northern Neck Transmission Line collocated on double circuit structures with Line #224. This includes the addition of a second circuit to 1.29 miles of previously replaced single-circuit structures across the Pamunkey River (Partial Rebuild Project, Case No. PUR-2018-00090). The Mattaponi River crossing will already have both circuits installed as part of the Partial Rebuild Project;
- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.



Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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If you would like to receive a GIS shapefile of the rebuild route to assist in your project review or if you have any questions, please do not hesitate to contact Rachel Studebaker at (804) 217-1847 or [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@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**



Richard B. Gangle  
Director, Environmental Services

Enclosure: Project Overview Map





September 4, 2020

**BY EMAIL**

Ms. Amy M. Ewing  
Virginia Department of Wildlife Resources  
7870 Villa Park, Suite 400  
Henrico, Virginia 23228

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Amy M. Ewing,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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Sincerely,

**Dominion Energy Virginia**



Richard B. Gangle  
Director, Environmental Services

Enclosure:     Project Overview Map





September 4, 2020

**BY EMAIL**

Mr. Keith Tignor  
Virginia Department of Agriculture and Consumer Affairs  
102 Governor Street  
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Keith Tignor,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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Sincerely,

**Dominion Energy Virginia**



Richard B. Gangle  
Director, Environmental Services

Enclosure: Project Overview Map





September 4, 2020

**BY EMAIL**

Mr. Todd Groh  
Virginia Department of Forestry, Forestland Conservation Division  
900 Natural Resources Drive, Suite 800  
Charlottesville, Virginia 22903

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Todd Groh,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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Lanexa – Northern Neck  
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Sincerely,

**Dominion Energy Virginia**



Richard B. Gangle  
Director, Environmental Services

Enclosure:     Project Overview Map





September 4, 2020

**BY EMAIL**

Mr. Tony Watkinson  
Virginia Marine Resources Commission,  
Habitat Management Division  
Building 96, 380 Fenwick Road  
Ft. Monroe, Virginia 23651

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Tony Watkinson,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
- ii. Install 40.5 miles of a new 230 kV Lanexa-Northern Neck Transmission Line collocated on double circuit structures with Line #224. This includes the addition of a second circuit to 1.29 miles of previously replaced single-circuit structures across the Pamunkey River (Partial Rebuild Project, Case No. PUR-2018-00090). The Mattaponi River crossing will already have both circuits installed as part of the Partial Rebuild Project;
- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.



Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

The Company is preparing an application for Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”). Pursuant to Va. Code §15.2-2202, the Company is writing to notify you of the proposed Rebuild Project in advance of this SCC filing. We respectfully request that you submit any comments or additional information you feel would have bearing on the Project within 30 days of the date of this letter. Enclosed is a Project Location Map depicting the rebuild route and project location.

If you would like to receive a GIS shapefile of the rebuild route to assist in your project review or if you have any questions, please do not hesitate to contact Rachel Studebaker at (804) 217-1847 or [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@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**



Richard B. Gangle  
Director, Environmental Services

Enclosure: Project Overview Map





September 4, 2020

**BY EMAIL**

Mr. Troy Andersen  
US Fish and Wildlife Service,  
Virginia Field Office, Ecological Services  
6669 Short Lane  
Gloucester, Virginia 23061

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Troy Andersen,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
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Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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Sincerely,

**Dominion Energy Virginia**



Richard B. Gangle  
Director, Environmental Services

Enclosure: Project Overview Map





September 4, 2020

**BY EMAIL**

Norfolk District- Main Office  
US Army Corps of Engineers  
Regulatory Branch  
803 Front Street  
Norfolk, VA 23510

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Sir or Madam,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
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Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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Sincerely,

**Dominion Energy Virginia**



Richard B. Gangle  
Director, Environmental Services

Enclosure:     Project Overview Map





September 4, 2020

**BY EMAIL**

Ms. S. Rene Hypes  
Virginia Department of Conservation and Recreation,  
Division of Natural Heritage  
600 East Main Street, 24th Floor  
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. S. Rene Hypes,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
- ii. Install 40.5 miles of a new 230 kV Lanexa-Northern Neck Transmission Line collocated on double circuit structures with Line #224. This includes the addition of a second circuit to 1.29 miles of previously replaced single-circuit structures across the Pamunkey River (Partial Rebuild Project, Case No. PUR-2018-00090). The Mattaponi River crossing will already have both circuits installed as part of the Partial Rebuild Project;
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Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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Sincerely,

**Dominion Energy Virginia**



Richard B. Gangle  
Director, Environmental Services

Enclosure: Project Overview Map





September 4, 2020

**BY EMAIL**

Ms. Trisha Beasley  
Department of Environmental Quality  
Wetlands Protection Program  
13901 Crown Court  
Woodbridge, VA 22193

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Trisha Beasley,

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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Lanexa – Northern Neck  
9/4/2020  
Page 2 of 2

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If you would like to receive a GIS shapefile of the rebuild route to assist in your project review or if you have any questions, please do not hesitate to contact Rachel Studebaker at (804) 217-1847 or [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@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**



Richard B. Gangle  
Director, Environmental Services

Enclosure:     Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Mr. Doug Felix  
Federal Aviation Administration  
Obstruction Evaluation Group  
AJV-A520  
Tetra Tech AMT Support  
10101 Hillwood Parkway  
Fort Worth, TX 76177

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Felix:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests the Federal Aviation Administration ("FAA") submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If the FAA 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 me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information FAA may have to offer.



**Dominion Energy Virginia**

10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink, appearing to read "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Mr. Scott Denny  
Airport Services Division  
Virginia Department of Aviation  
5702 Gulfstream Road  
Richmond, Virginia 23250

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Denny:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Aviation ("DOAV") submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If the DOAV 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 me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information DOAV may have to offer.



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink that reads "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Mr. John Carnifax  
James City County Parks & Recreation  
5320 Palmer Lane  
Suite 2A  
Williamsburg, VA 23188

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Carnifax:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests James City County submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If James City County 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 me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information James City County may have to offer.



**Dominion Energy Virginia**

10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink that reads "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Ms. Marcie Parker  
Virginia Department of Transportation  
Fredericksburg District, District Engineer  
87 Deacon Road  
Fredericksburg, Virginia 22405

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Parker:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests Virginia Department of Transportation ("VDOT") submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If VDOT 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 me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information VDOT may have to offer.



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink that reads "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Mr. Shane Mann  
Virginia Department of Transportation  
Richmond District, District Engineer  
2430 Pine Forest Drive  
Colonial Heights, Virginia 23834

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Mann:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests Virginia Department of Transportation ("VDOT") submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If VDOT 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 me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information VDOT may have to offer.



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink that reads "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Department of Historic Resources  
2801 Kensington Avenue  
Richmond, Virginia 23221

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Kirchen:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
- ii. Install 40.5 miles of a new 230 kV Lanexa-Northern Neck Transmission Line collocated on double circuit structures with Line #224. This includes the addition of a second circuit to 1.29 miles of previously replaced single-circuit structures across the Pamunkey River (Partial Rebuild Project, Case No. PUR-2018-00090). The Mattaponi River crossing will already have both circuits installed as part of the Partial Rebuild Project;
- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If DHR would like to receive a GIS shapefile of the Project route to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink, appearing to read "Lane Carr", written in a cursive style.

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Ms. Martha Little  
Virginia Outdoors Foundation  
600 East Main Street, Suite 402  
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Little:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project").. The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
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**Dominion Energy Virginia**

10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

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Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Ms. Patrice Sadler  
Historic Virginia Land Conservancy  
5000 New Point Road, Suite 2202  
Williamsburg, Virginia 23188

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Sadler:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If you would like to receive a GIS shapefile of the Project route to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.



**Dominion Energy Virginia**

10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink, appearing to read "Lane Carr", written in a cursive style.

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 2, 2020

Ms. Locke Ogens  
The Nature Conservancy, State Director  
530 E. Main Street, Suite 800  
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Ogens:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

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The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. If The Nature Conservancy would like to receive a GIS shapefile of the Project route to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink that reads "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



September 25, 2020

Mr. Ronald Harris  
Division Manager Natural Resources  
Newport News Waterworks  
700 Town Center Drive  
Newport News, VA 23606

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Mr. Harris:

Dominion Energy Virginia (the "Company") is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
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- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the SCC. At this time, in advance of the SCC filing, the Company respectfully requests Newport News submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter. 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 me at (804) 310-9658 or [lane.e.carr@dominionenergy.com](mailto:lane.e.carr@dominionenergy.com). The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.



**Dominion Energy Virginia**  
10900 Nuckols Road, 4<sup>th</sup> Floor, Glen Allen, Virginia 23060



Sincerely,

A handwritten signature in black ink, appearing to read "Lane Carr".

Lane Carr  
Siting and Permitting Specialist

Enclosed: Project Overview Map





# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Matthew J. Strickler  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4000  
1-800-592-5482

September 10, 2020

Rachel Studebaker  
Environmental Specialist II  
Dominion Energy Services  
120 Tredegar Street  
Richmond, VA 23219

RE: Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia

Dear Ms. Studebaker:

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](mailto: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](mailto:eir@deq.virginia.gov)). The required "Wetlands Impact Consultation" can be sent directly to Michelle Henicheck at [michelle.henicheck@deq.virginia.gov](mailto: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, Dominion should coordinate 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
- Department of Conservation and Recreation  
Department of Health  
Department of Agriculture and Consumer Services  
Department of Game and Inland Fisheries  
Virginia Marine Resources Commission  
Department of Historic Resources  
Department of Mines, Minerals, and 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](http://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:

- <http://128.172.160.131/gems2/>

- 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](http://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](http://www.dcr.virginia.gov/natural_heritage/dbsearchtool.shtml)

- DGIF 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](http://www.epa.gov/superfund/sites/cursites/index.htm)

- EPA RCRAInfo Search

Information on hazardous waste facilities:

- [www.epa.gov/enviro/facts/rcrainfo/search.html](http://www.epa.gov/enviro/facts/rcrainfo/search.html)

- Total Maximum Daily Loads Approved Reports

- <https://www.deq.virginia.gov/programs/water/waterqualityinformationtmdls/tmdl/tmdldevelopment/approvedtmdlreports.aspx>

- EPA Envirofacts Database

EPA Environmental Information, including EPA-Regulated Facilities and Toxics Release Inventory Reports:

- [www.epa.gov/enviro/index.html](http://www.epa.gov/enviro/index.html)

- EPA NEPAassist 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) 698-4204 or e-mail [bettina.rayfield@deq.virginia.gov](mailto:bettina.rayfield@deq.virginia.gov)).



I hope this information is helpful to you.

Sincerely,

A handwritten signature in black ink, appearing to read "Bettina Rayfield". The signature is fluid and cursive, with a long horizontal stroke at the end.

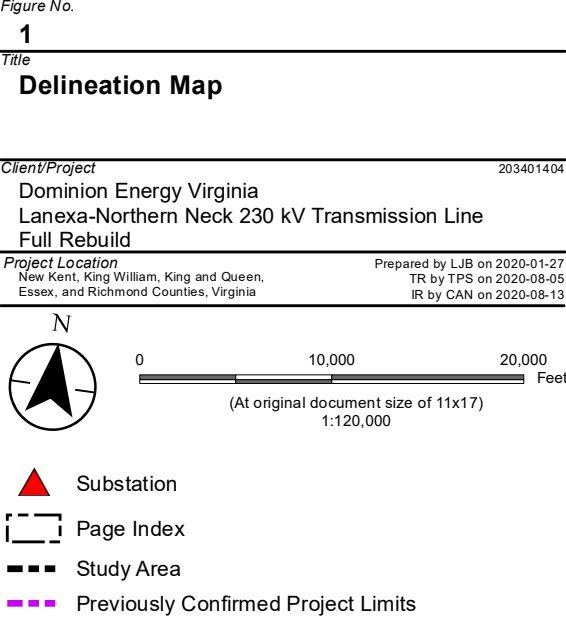
Bettina Rayfield, Program Manager  
Environmental Impact Review and  
Long-Range Priorities



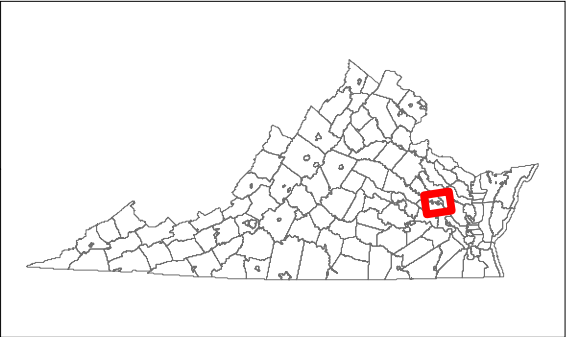
Total Site Data	
Project Area	618.80 Acres ±
Project Length	41.46 Miles ±
Estuarine Intertidal Emergent Wetlands (E2EM)	21.33 Acres ±
Estuarine Intertidal Scrub-Shrub Wetlands (E2SS)	0.03 Acres ±
Lacustrine Limnetic Unconsolidated Bottom (L1UBH)	2.14 Acres ±
Palustrine Forested Wetlands (PFO)	0.05 Acres ±
Palustrine Scrub-Shrub Wetlands (PSS)	13.24 Acres ±
Palustrine Emergent Wetlands (PEM)	83.82 Acres ±
Palustrine Emergent Tidal Wetlands PEM (Tidal)	1.38 Acres ±
Estuarine Subtidal Unconsolidated Bottom (E1UB)	26.42 Acres ± (9,955 L.F. ±)
Riverine Tidal Unconsolidated Bottom (R1UB)	2.86 Acres ± (140 L.F. ±)
Low er Perennial Stream Channels (R2)	0.39 Acres ± (1,989 L.F. ±)
Upper Perennial Stream Channels (R3)	0.37 Acres ± (4,097 L.F. ±)
Intermittent Stream Channels (R4)	0.48 Acres ± (8,832 L.F. ±)
Ephemeral Stream Channels (R6)	0.01 Acres ± (154 L.F. ±)
Palustrine Unconsolidated Bottom (PUB)	2.08 Acres ±
Jurisdictional Ditches	0.05 Acres ± (520 L.F. ±)

Study Area Data	
Study Area	546.69 Acres ±
Study Length	36.69 Miles ±
Estuarine Intertidal Emergent Wetlands (E2EM)	9.93 Acres ±
Estuarine Intertidal Scrub-Shrub Wetlands (E2SS)	0.03 Acres ±
Lacustrine Limnetic Unconsolidated Bottom (L1UBH)	2.14 Acres ±
Palustrine Forested Wetlands (PFO)	0.03 Acres ±
Palustrine Scrub-Shrub Wetlands (PSS)	9.56 Acres ±
Palustrine Emergent Wetlands (PEM)	73.52 Acres ±
Palustrine Emergent Tidal Wetlands PEM (Tidal)	1.38 Acres ±
Estuarine Subtidal Unconsolidated Bottom (E1UB)	20.61 Acres ± (1,104 L.F. ±)
Low er Perennial Stream Channels (R2)	0.39 Acres ± (1,989 L.F. ±)
Upper Perennial Stream Channels (R3)	0.32 Acres ± (3,523 L.F. ±)
Intermittent Stream Channels (R4)	0.48 Acres ± (8,832 L.F. ±)
Ephemeral Stream Channels (R6)	0.01 Acres ± (154 L.F. ±)
Palustrine Unconsolidated Bottom (PUB)	1.67 Acres ±
Jurisdictional Ditches	0.05 Acres ± (520 L.F. ±)

Previously Confirmed Site Data	
Project Area	72.11 Acres ±
Project Length	4.77 Miles ±
Estuarine Intertidal Emergent Wetlands (E2EM)	11.40 Acres ±
Palustrine Forested Wetlands (PFO)	0.02 Acres ±
Palustrine Scrub-Shrub Wetlands (PSS)	3.69 Acres ±
Palustrine Emergent Wetlands (PEM)	10.30 Acres ±
Estuarine Subtidal Unconsolidated Bottom (E1UB)	5.82 Acres ± (8,851 L.F. ±)
Riverine Tidal Unconsolidated Bottom (R1UB)	2.86 Acres ± (140 L.F. ±)
Upper Perennial Stream Channels (R3)	0.05 Acres ± (573 L.F. ±)
Palustrine Unconsolidated Bottom (PUB)	0.41 Acres ±



Individual site data values in the table have been rounded and are therefore approximate. The total site data has been calculated and rounded from raw data, rather than summing individual site data. As such, total site data figures may vary slightly from a direct summation of individual site data.



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec

3. Base Map © National Geographic





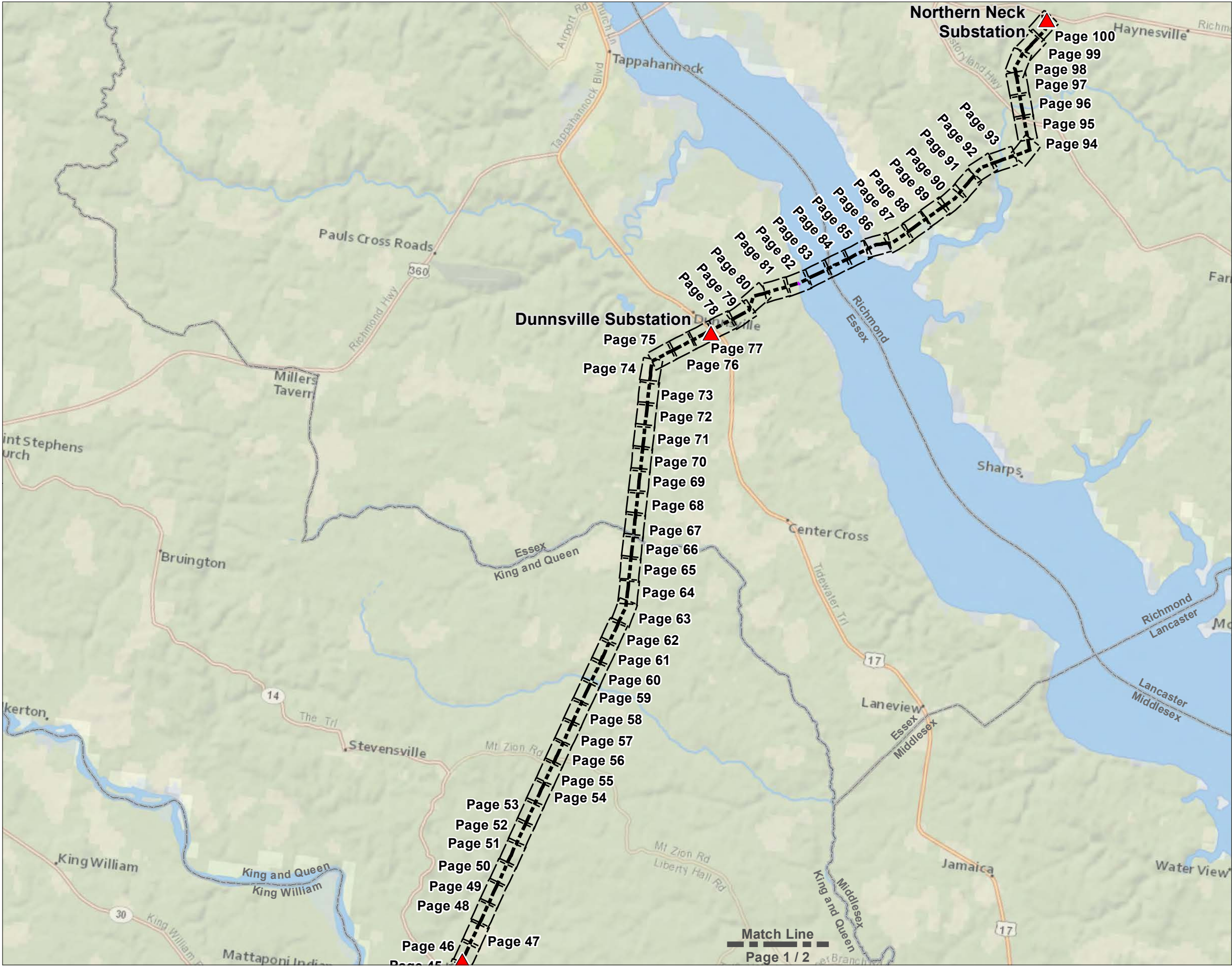
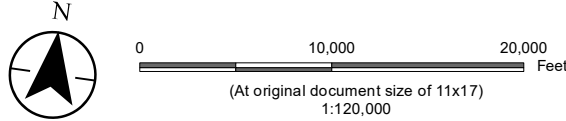


Figure No. **1**  
Title **Delineation Map**

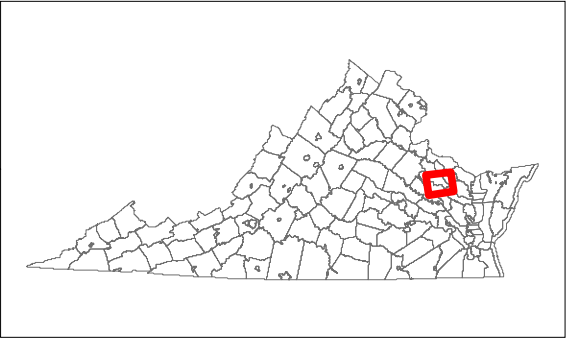
**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
**Prepared by** LJB on 2020-01-27  
TR by TPS on 2020-08-05  
IR by CAN on 2020-08-13



- Substation
- Page Index
- Study Area
- Previously Confirmed Project Limits

Individual site data values in the table have been rounded and are therefore approximate. The total site data has been calculated and rounded from raw data, rather than summing individual site data. As such, total site data figures may vary slightly from a direct summation of individual site data.



- Notes**
- 1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
  - 2. Data Sources: Dominion Energy Virginia, Stantec
  - 3. Base Map © National Geographic



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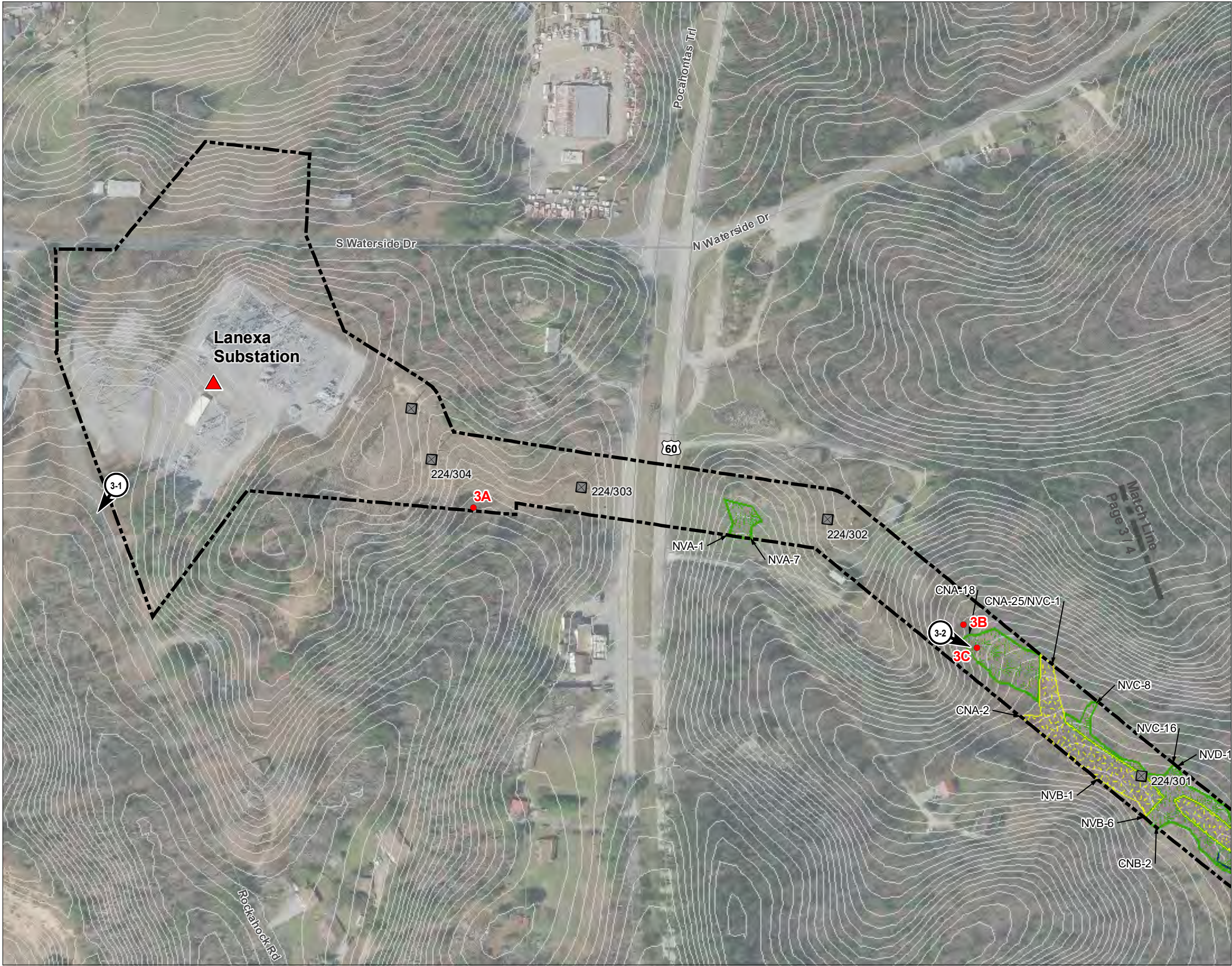
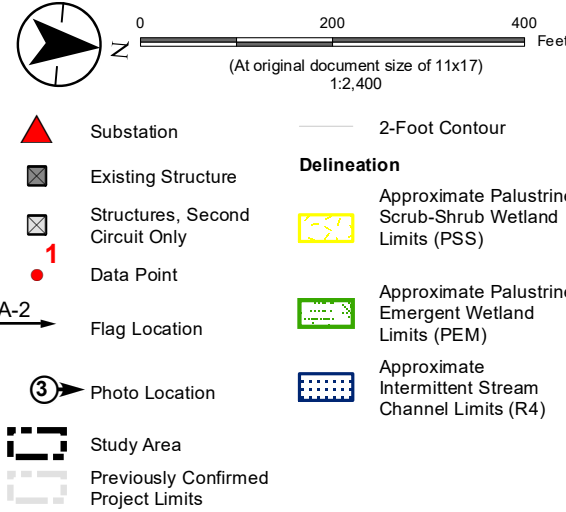


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
4. The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter capable GPS technology and are for planning purposes only.  
5. Background: Orthomagey © Bing Maps and © VGIN  
6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation







Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

	Substation		2-Foot Contour
	Existing Structure		<b>Delineation</b> Area Not Accessed
	Structures, Second Circuit Only		Approximate Lacustrine Limnetic Unconsolidated Bottom Limits (L1UBH)
	Data Point		Approximate Palustrine Forested Wetland Limits (PFO)
	Flag Location		Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)
	Photo Location		Approximate Palustrine Emergent Wetland Limits (PEM)
	Study Area		Approximate Intermittent Stream Channel Limits (R4)
	Previously Confirmed Project Limits		Palustrine Emergent Wetland Limits (PEM)
	Confirmed Delineation NAO-2018-00660		Palustrine Unconsolidated Bottom (PUB)
	Palustrine Scrub-Shrub Wetland Limits (PSS)		
	Palustrine Emergent Wetland Limits (PEM)		
	Palustrine Unconsolidated Bottom (PUB)		



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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5. Background: Orthoimagery © Bing Maps and © VGIN
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location  
Photo Location  
Study Area  
Previously Confirmed Project Limits  
Confirmed Delineation NAO-2018-00660  
Palustrine Scrub-Shrub Wetland Limits (PSS)  
Palustrine Unconsolidated Bottom (PUB)

2-Foot Contour  
Delineation  
Area Not Accessed  
Approximate Lacustrine Limnetic Unconsolidated Bottom Limits (L1UBH)  
Approximate Palustrine Emergent Wetland Limits (PEM)



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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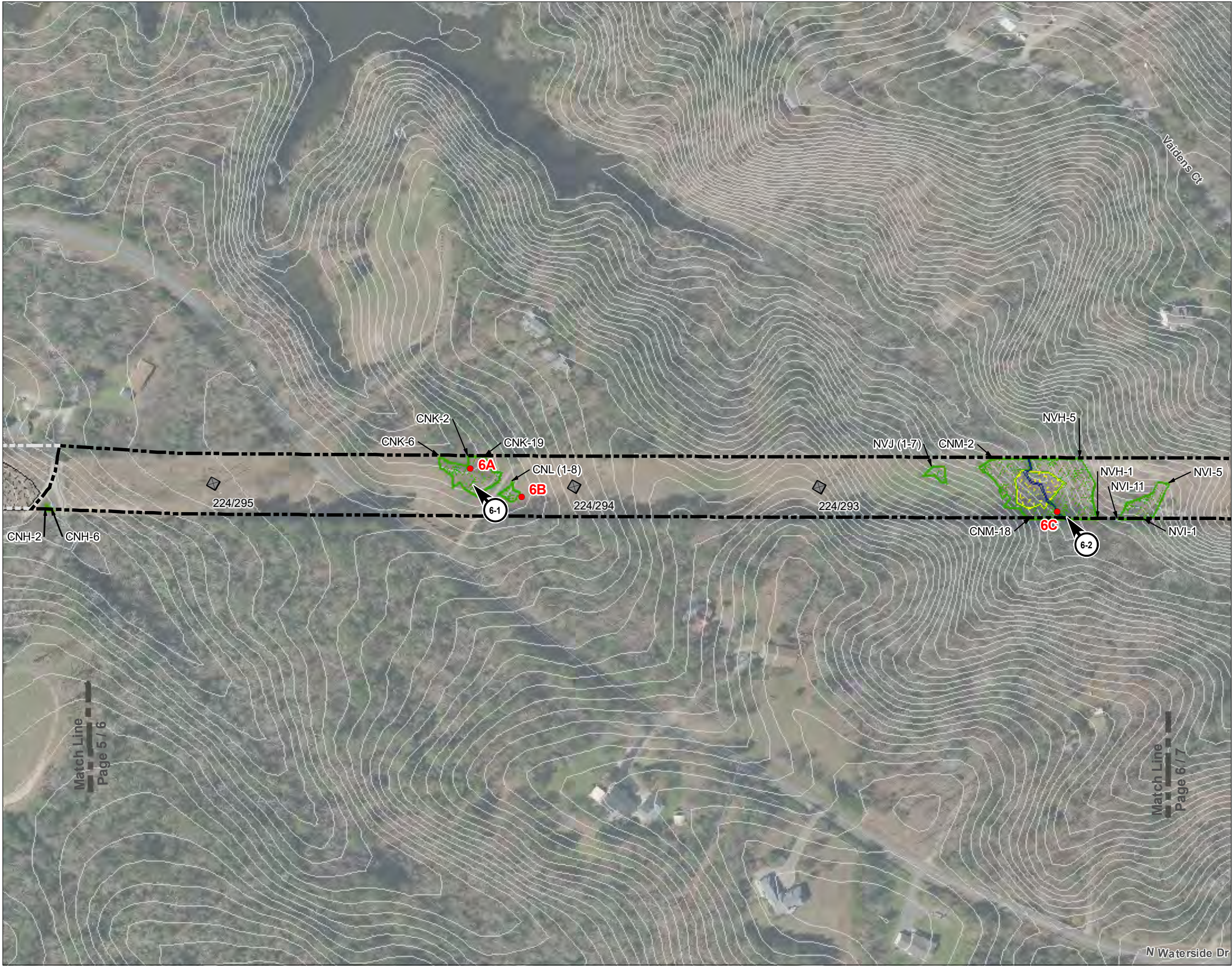


Figure No. **1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

Palustrine Scrub-Shrub Wetland Limits (PSS)

2-Foot Contour

**Delineation**

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)

**Confirmed Delineation NAO-2018-00660**

Palustrine Scrub-Shrub Wetland Limits (PSS)



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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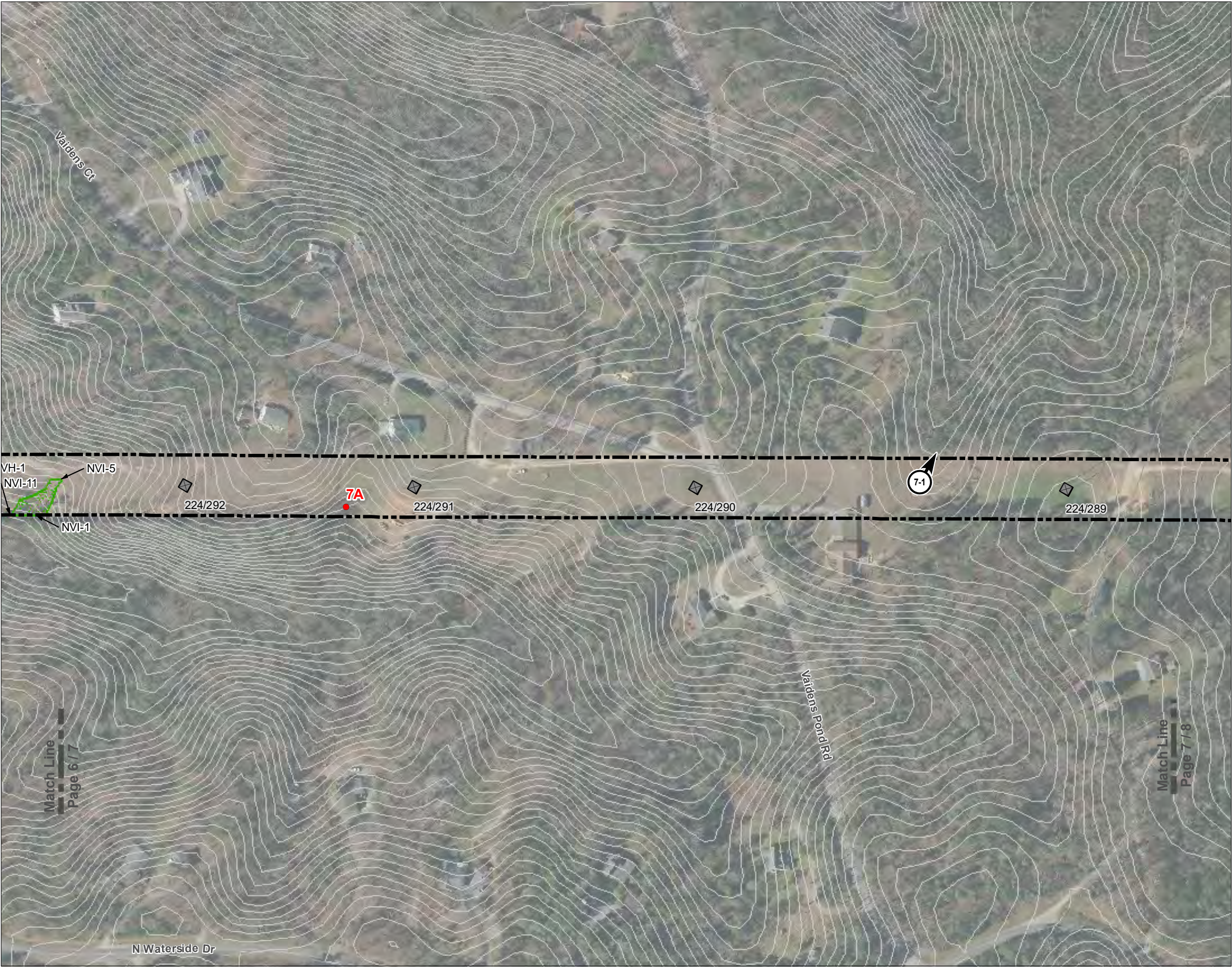


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
 Approximate Palustrine Emergent Wetland Limits (PEM)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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## Delineation Map







Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

0 200 400 Feet  
(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Delineation

Approximate Palustrine Emergent Wetland Limits (PEM)



Notes

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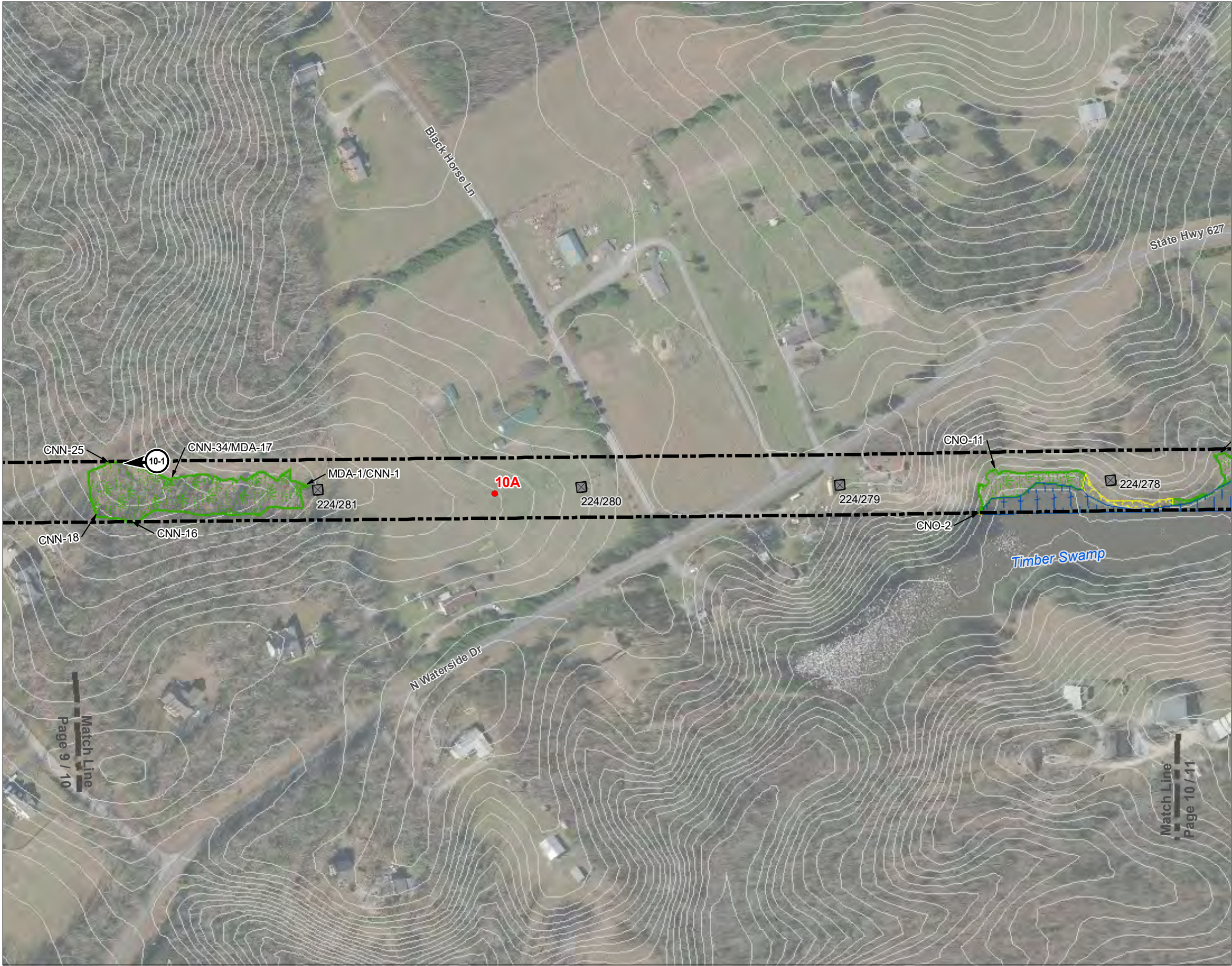
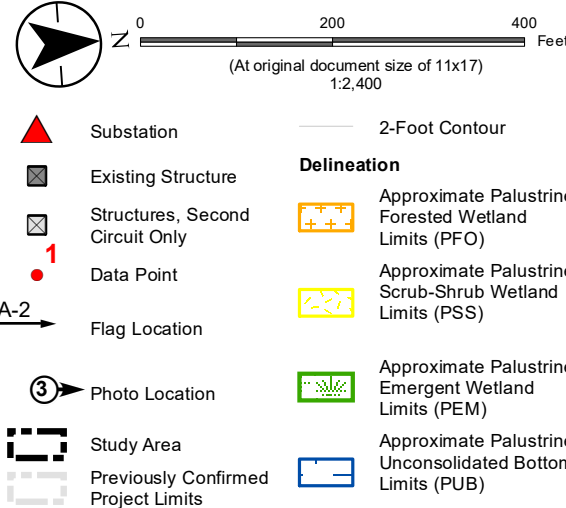


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes

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6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





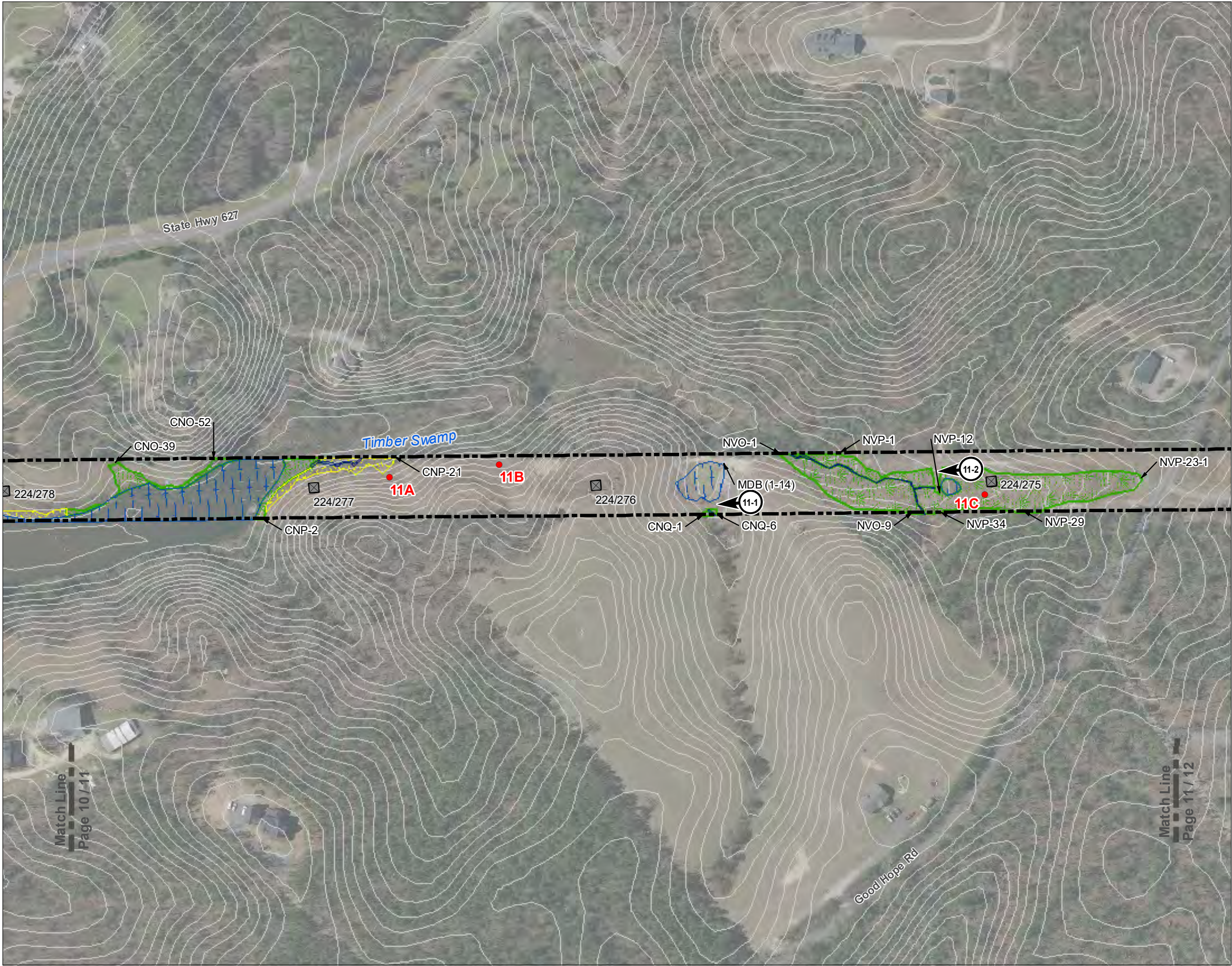


Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)

Approximate Palustrine Unconsolidated Bottom Limits (PUB)



- Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
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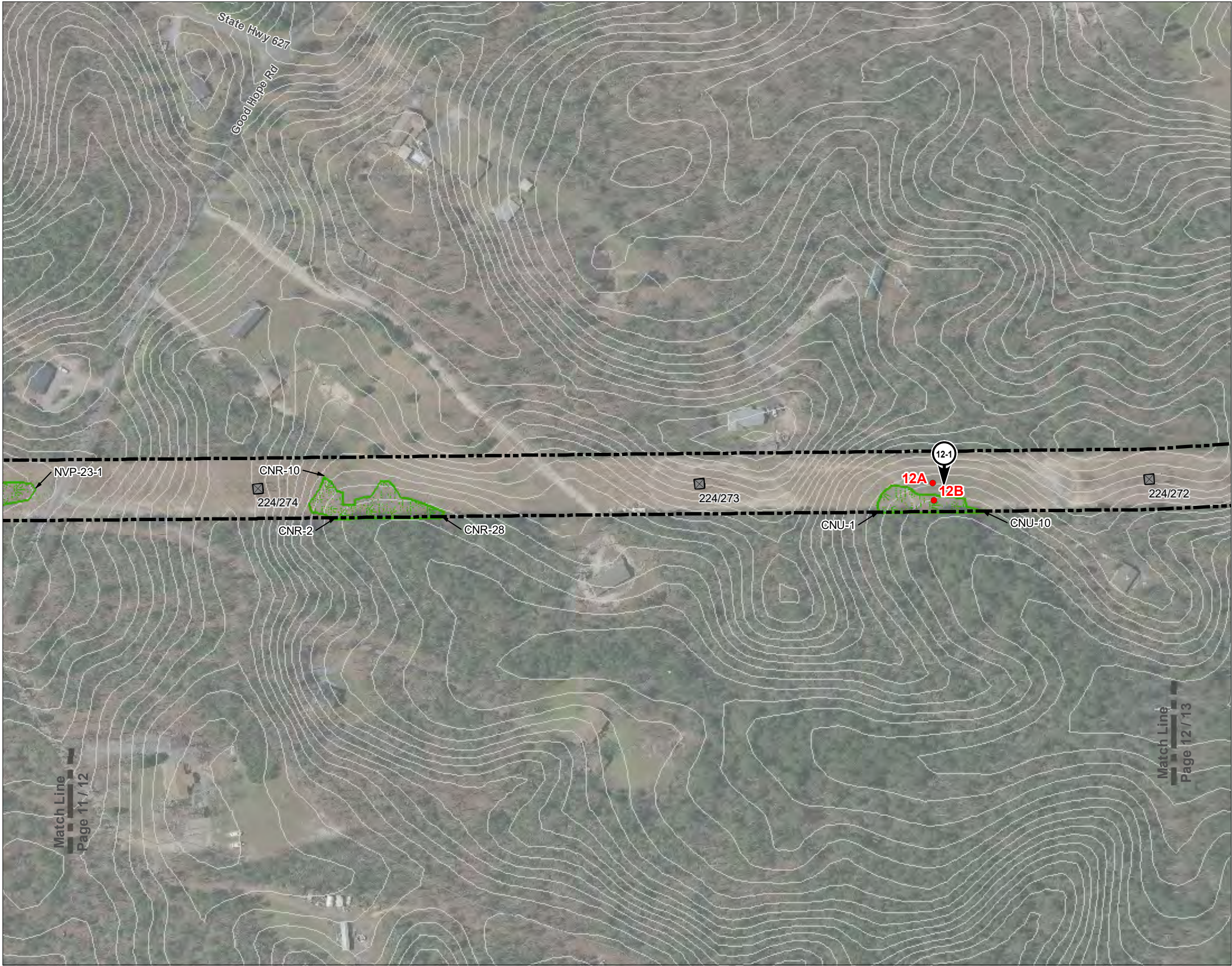
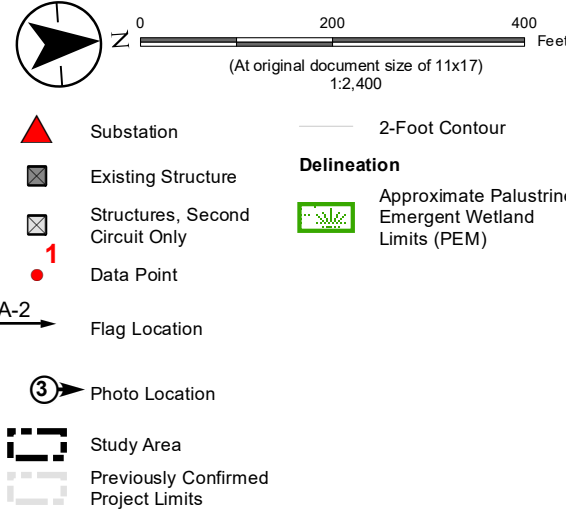


Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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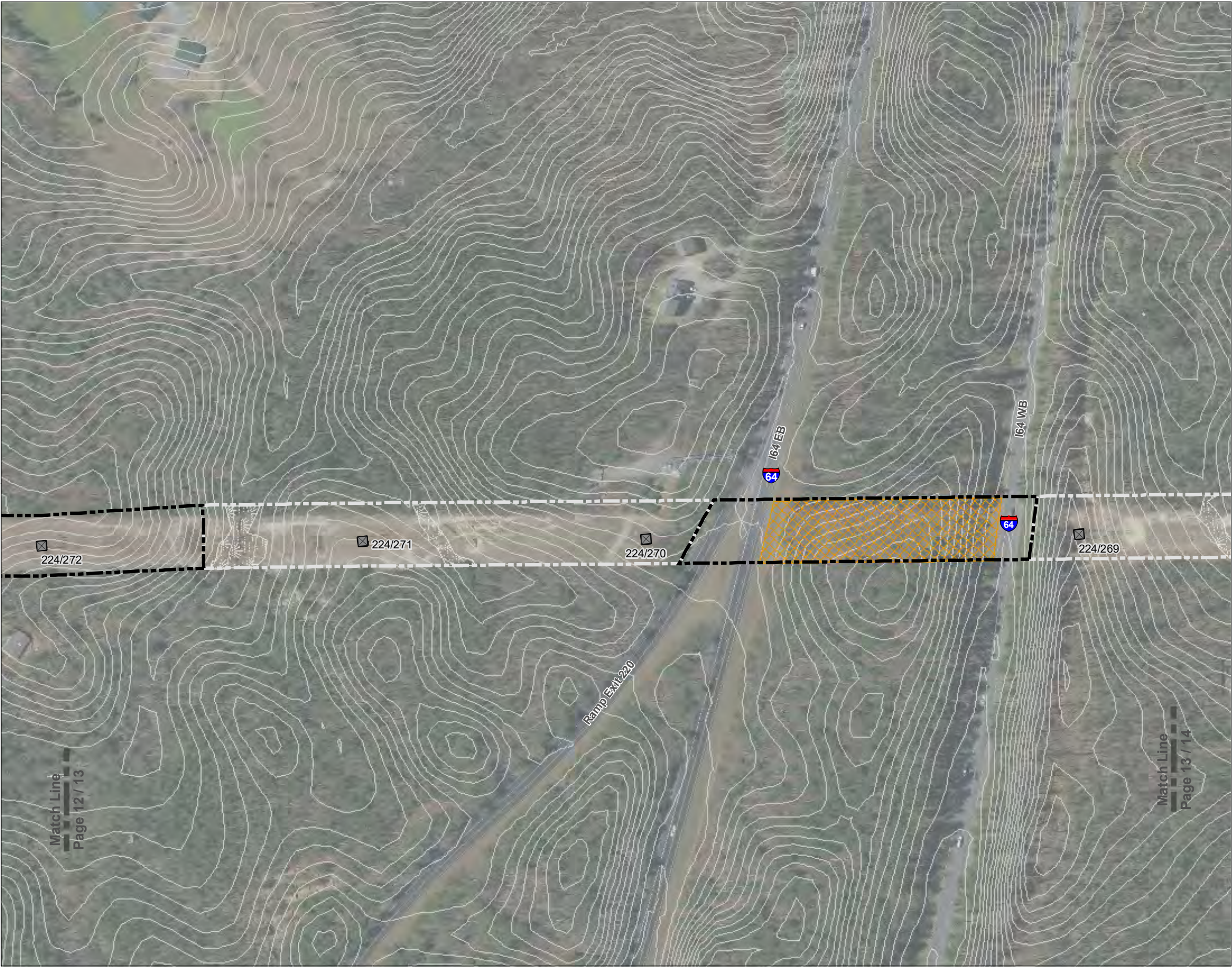


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

Confirmed Delineation NAO-2018-00661

Palustrine Emergent Wetland Limits (PEM)

2-Foot Contour

**Delineation**

Area Not Accessed



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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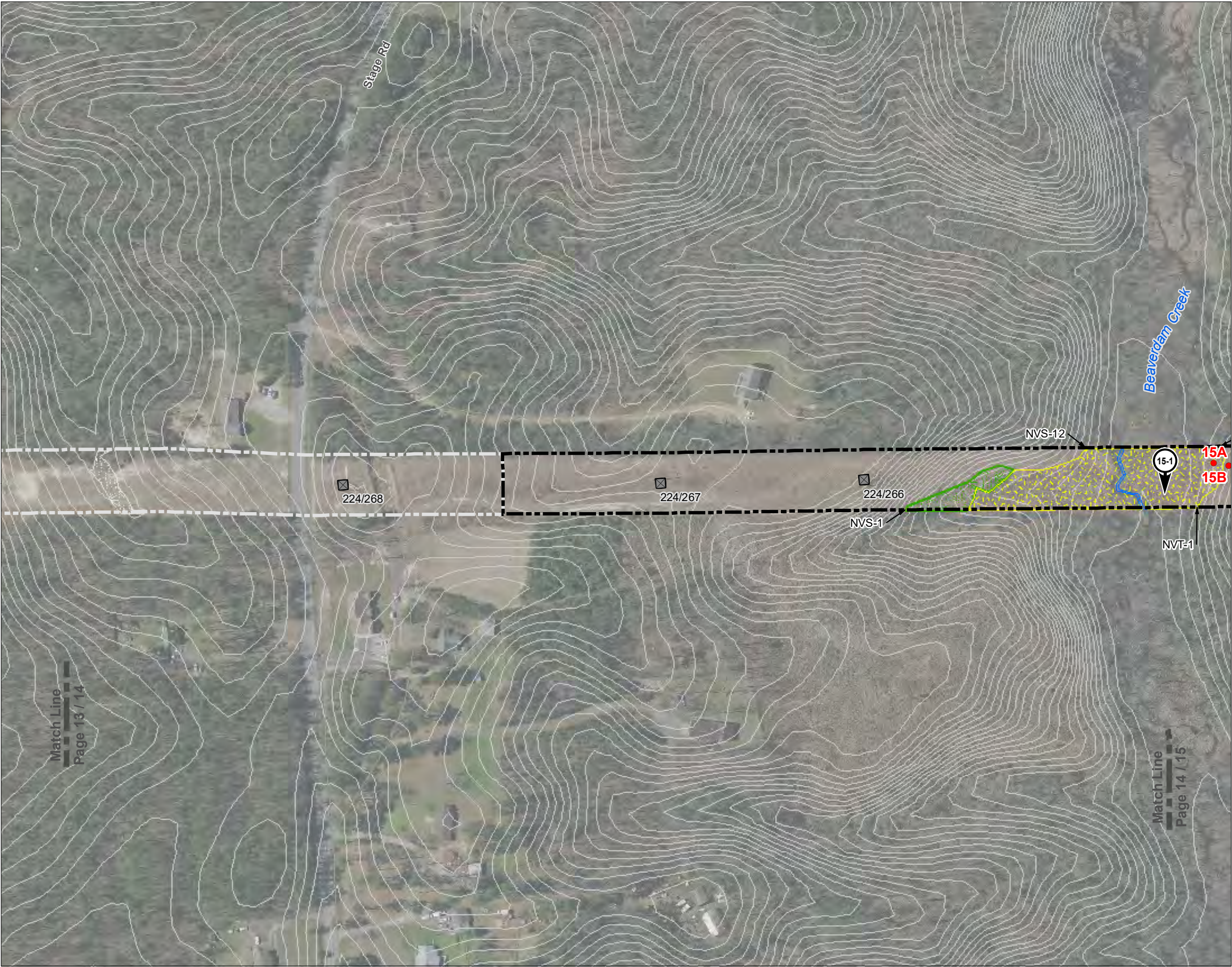


Figure No. **1**  
Title **Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

0 200 400 Feet  
(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

Palustrine Emergent Wetland Limits (PEM)

2-Foot Contour

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Lower Perennial Stream Channel Limits (R2)

**Confirmed Delineation NAO-2018-00661**



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No. **1**  
Title **Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Lower Perennial Stream Channel Limits (R2)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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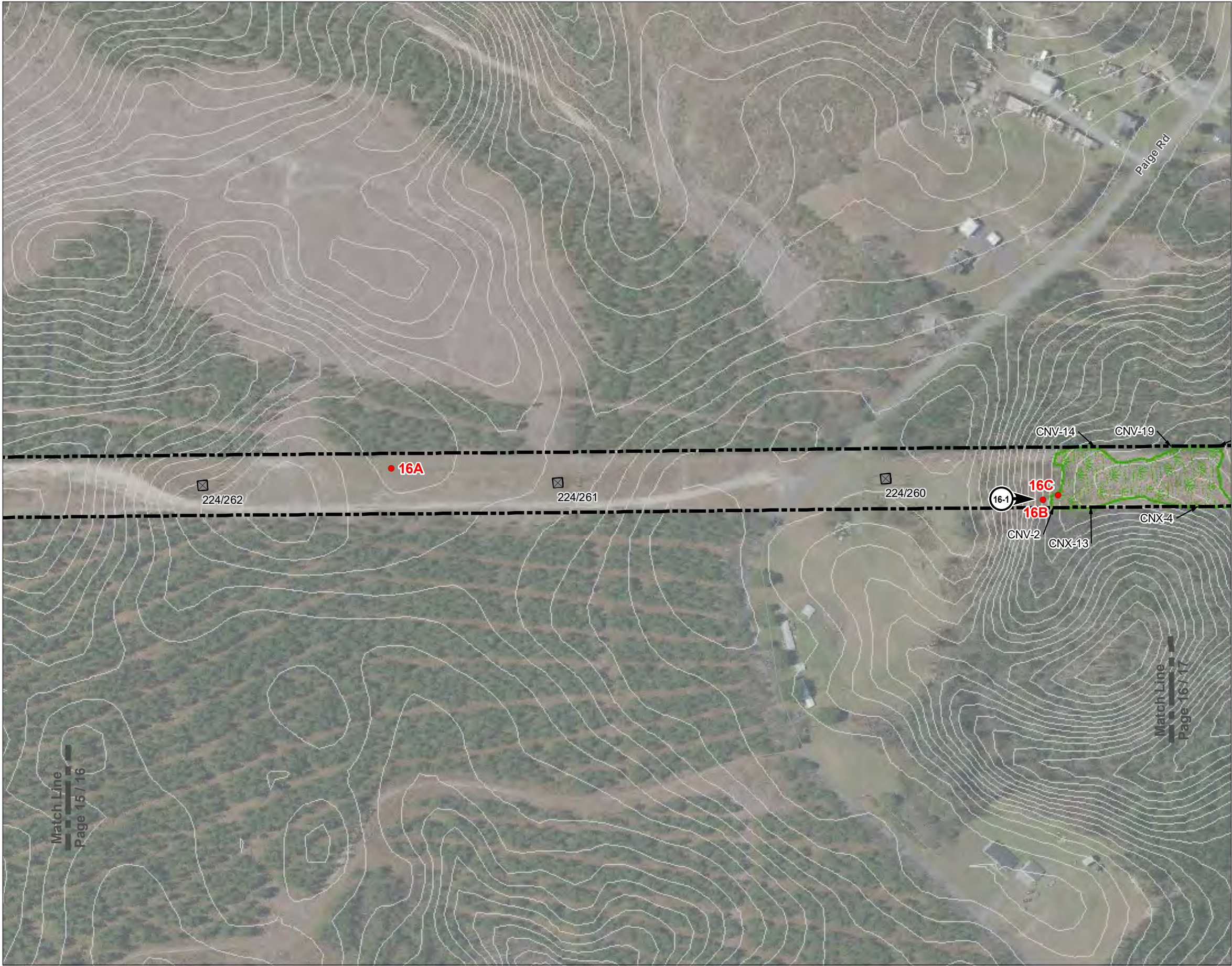


Figure No. 1  
Title Delineation Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

0 200 400 Feet  
(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Delineation

Approximate Palustrine Emergent Wetland Limits (PEM)



Notes  
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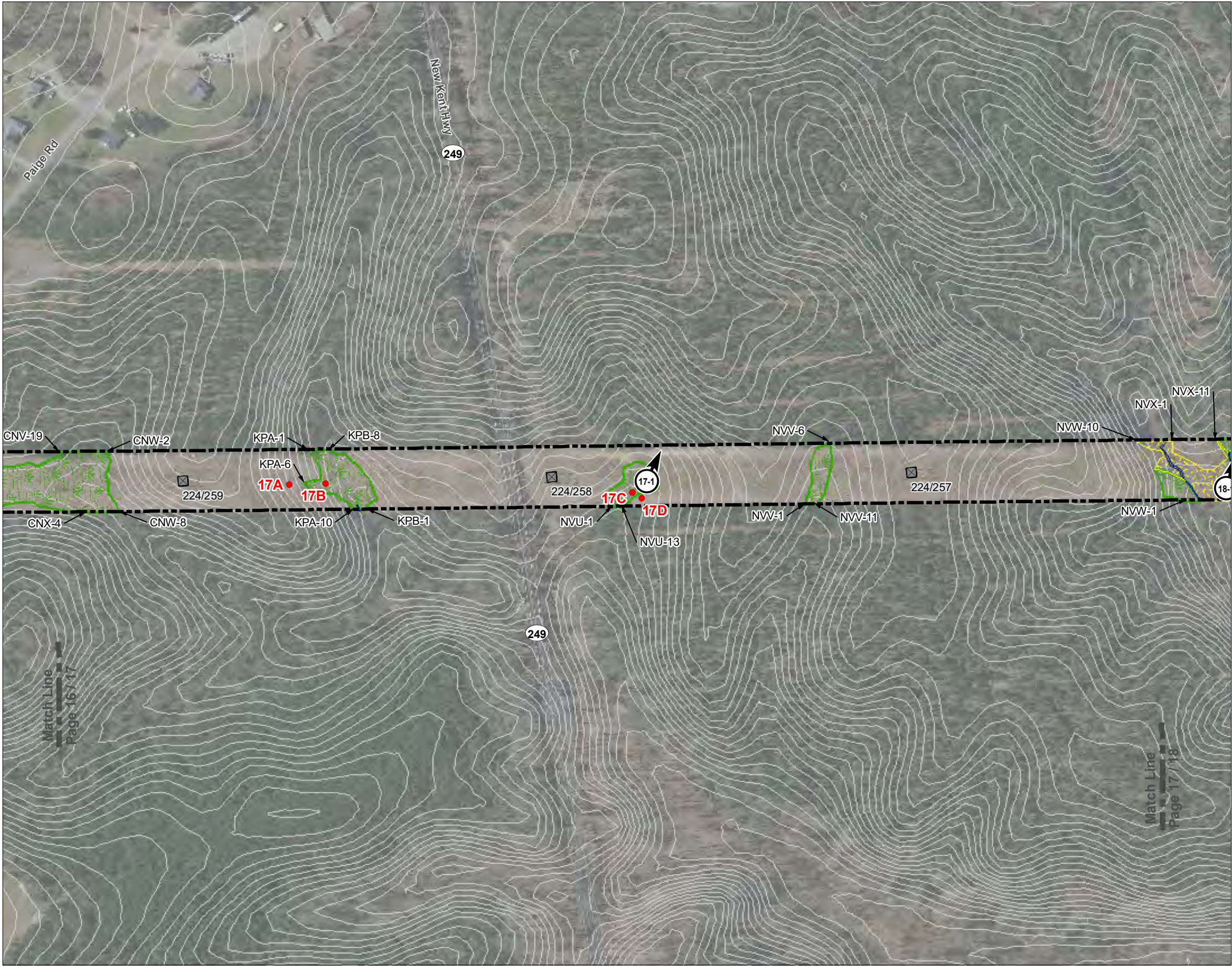
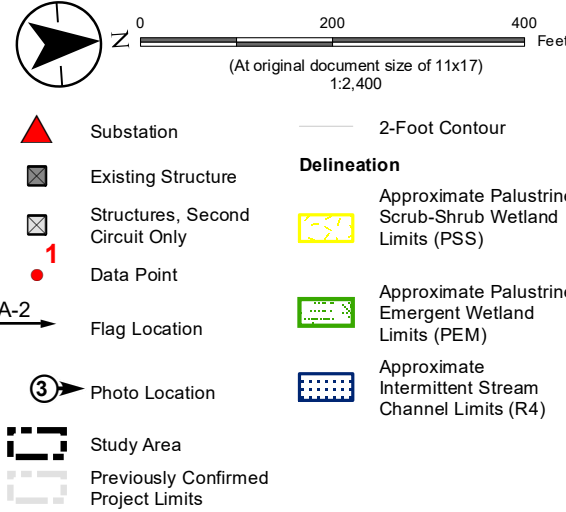


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
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Figure No.  
**1**

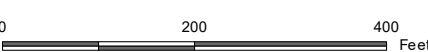

Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild


203401404


Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia


Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13





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 Substation


 Existing Structure


 Structures, Second Circuit Only


 Data Point

 Flag Location


 Photo Location


 Study Area


 Previously Confirmed Project Limits

 2-Foot Contour

**Delineation**

 Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

 Approximate Palustrine Emergent Wetland Limits (PEM)

 Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
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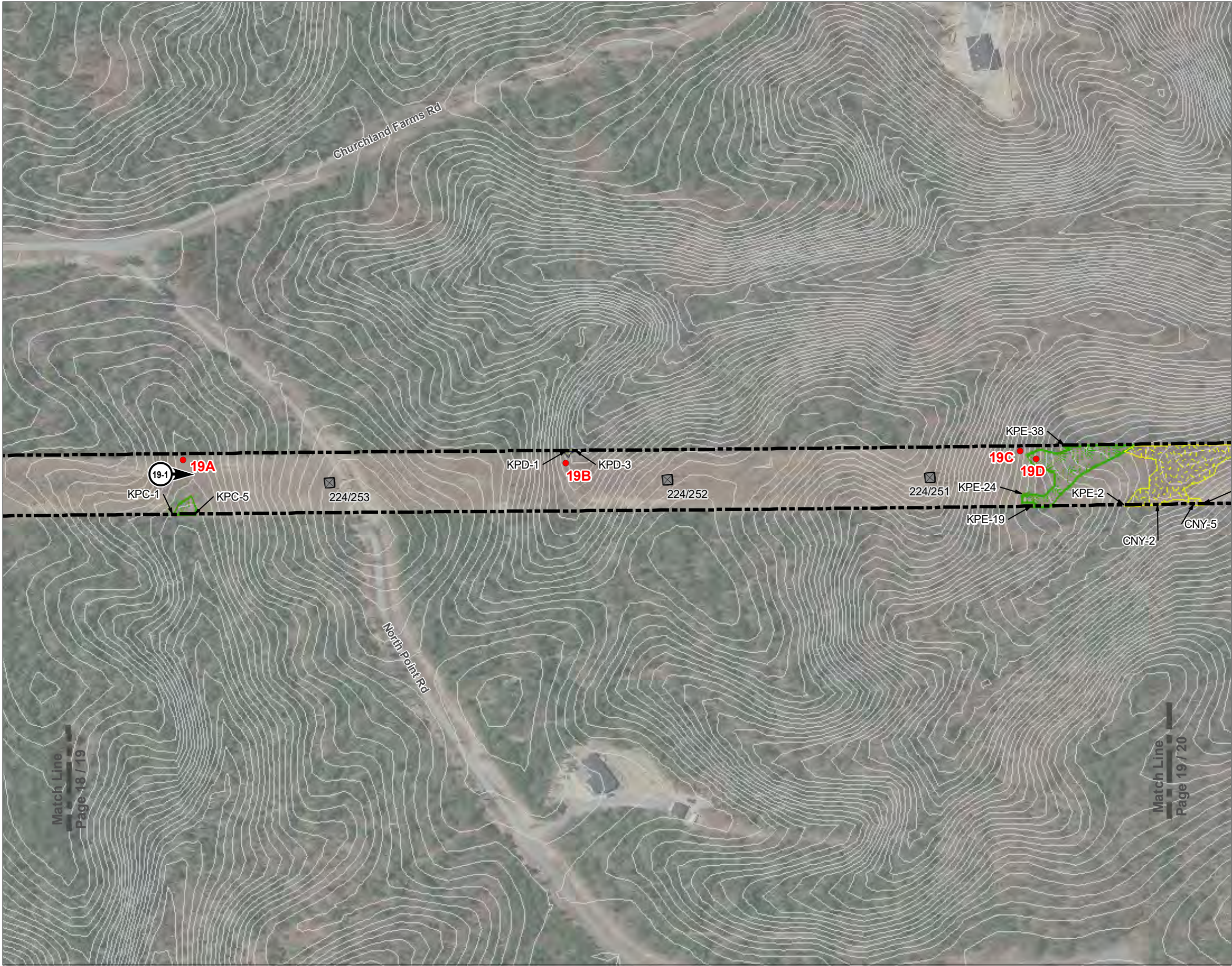


Figure No. **1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
 Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
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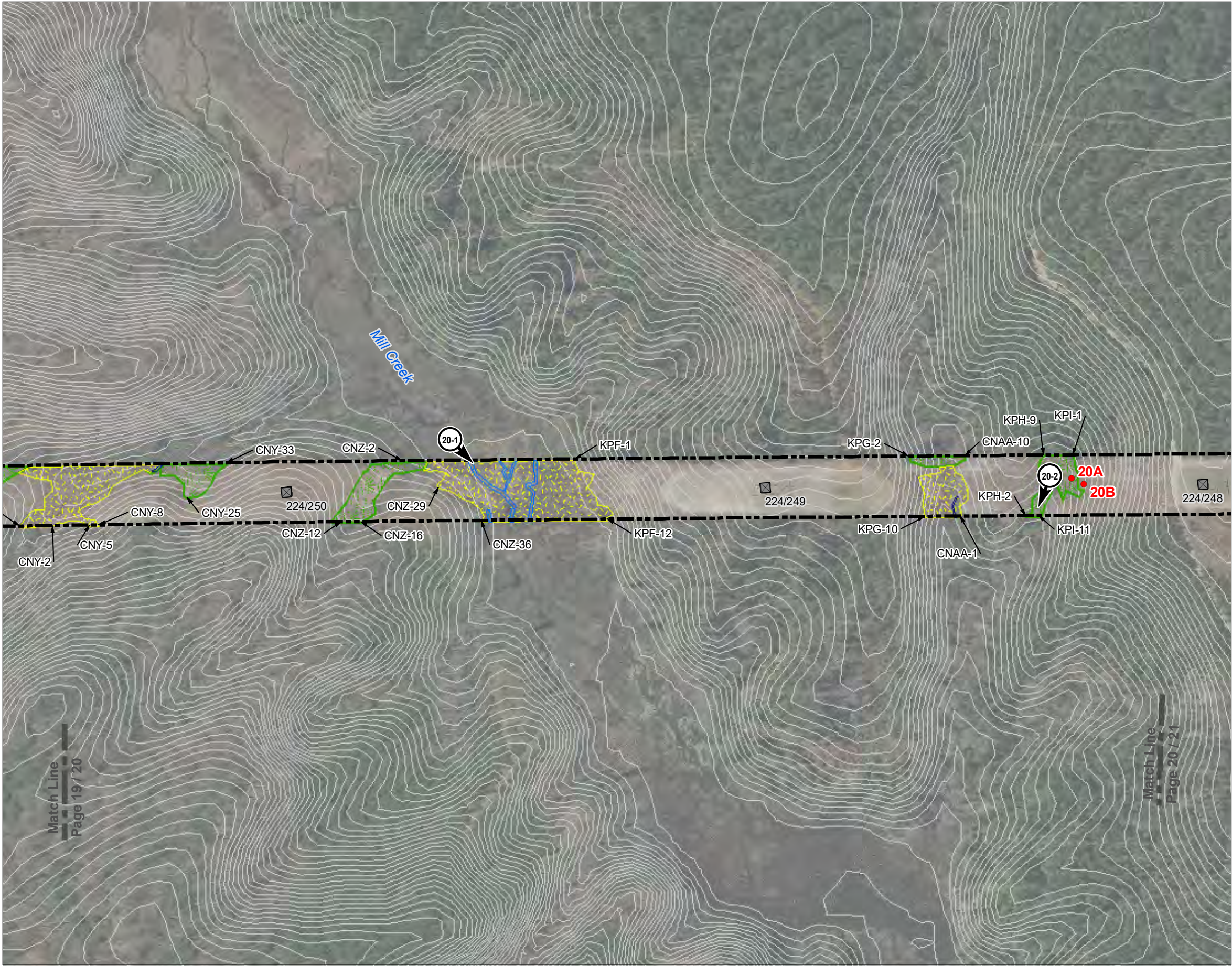
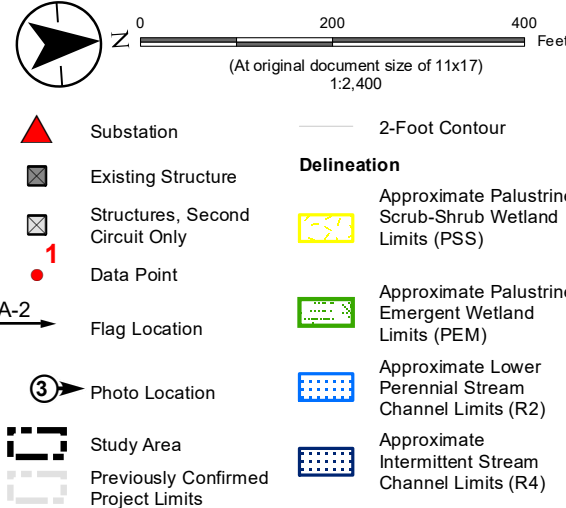


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



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Figure No.  
**1**  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Lower Perennial Stream Channel Limits (R2)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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5. Background: Orthoimagery © Bing Maps and © VGIN
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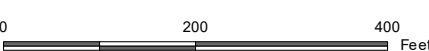






Figure No.  
**1**  
Title  
**Delineation Map**


Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404


Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13





(At original document size of 11x17)  
1:2,400


 Substation


 Existing Structure


 Structures, Second Circuit Only


 Data Point

 Flag Location


 Photo Location

 Study Area

 Previously Confirmed Project Limits

 2-Foot Contour

**Delineation**

 Approximate Palustrine Emergent Wetland Limits (PEM)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS

3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.

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5. Background: Orthomagey © Bing Maps and © VGIN

6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





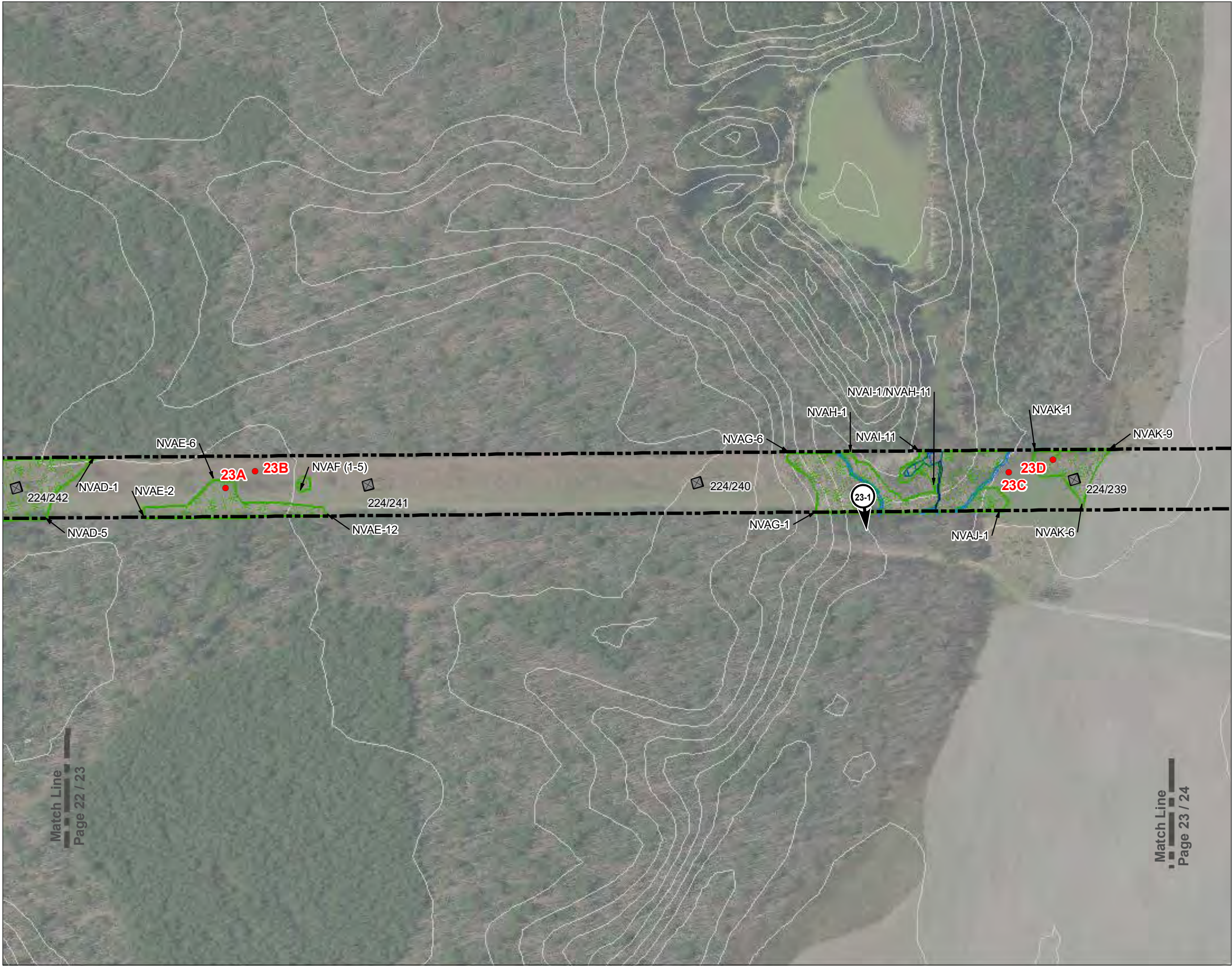
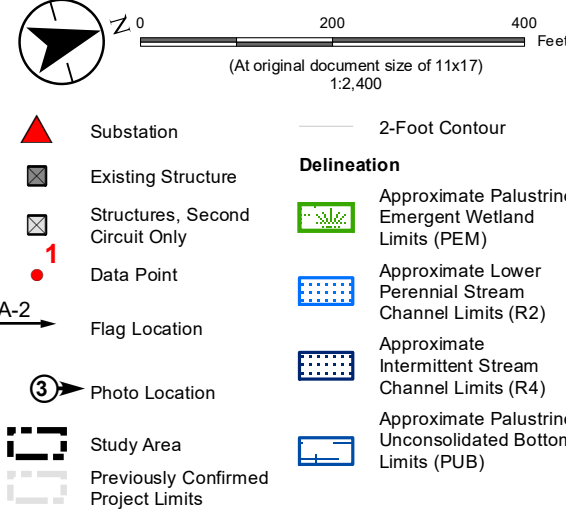


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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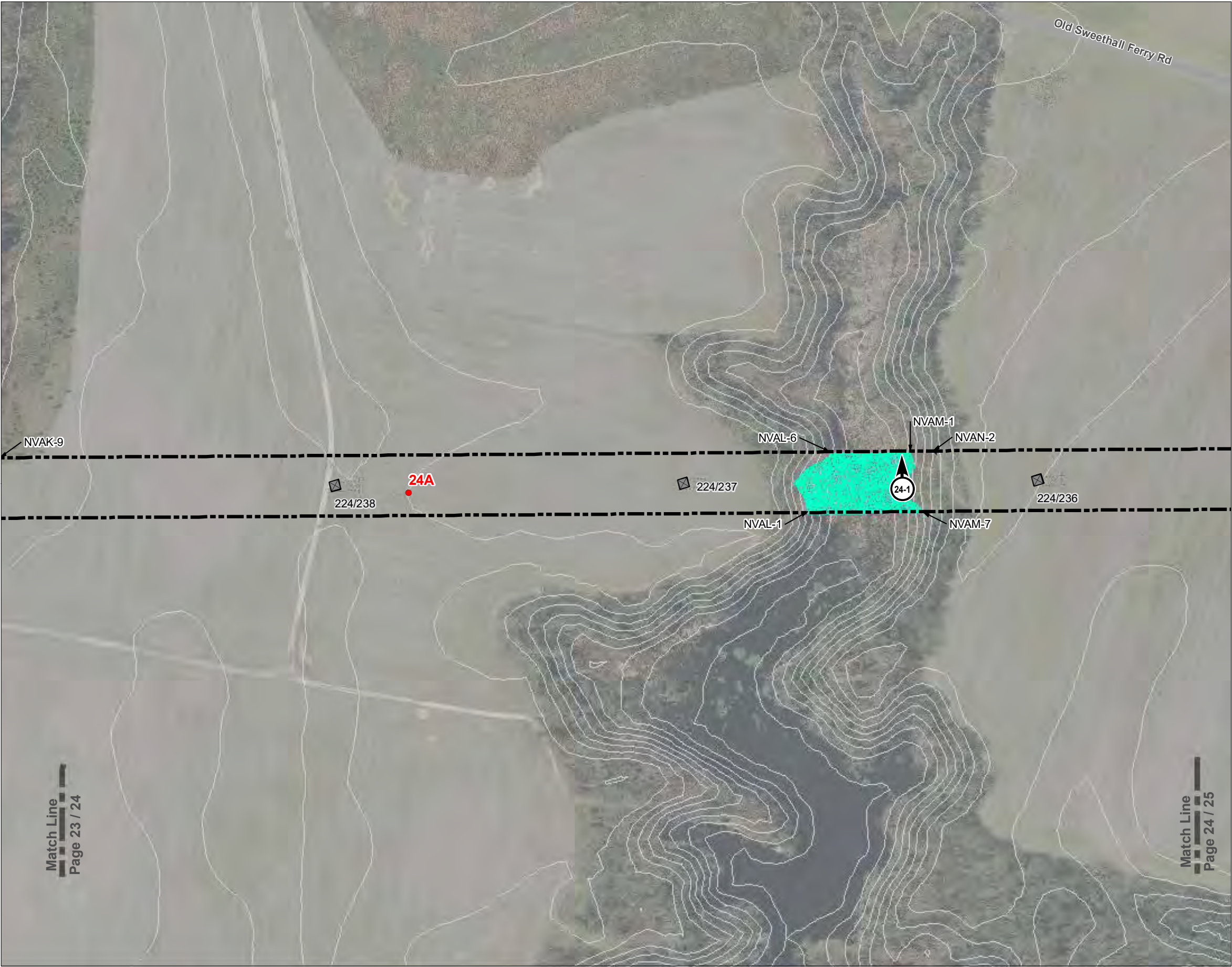


Figure No. 1  
Title Delineation Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

North Arrow  
Scale: 0 200 400 Feet  
(At original document size of 11x17)  
1:2,400

Legend:

- Substation
- Existing Structure
- Structures, Second Circuit Only
- Data Point
- Flag Location
- Photo Location
- Study Area
- Previously Confirmed Project Limits
- 2-Foot Contour
- Delineation
- Approximate Palustrine Emergent Tidal Wetland Limits PEM (Tidal)
- Approximate Intermittent Stream Channel Limits (R4)



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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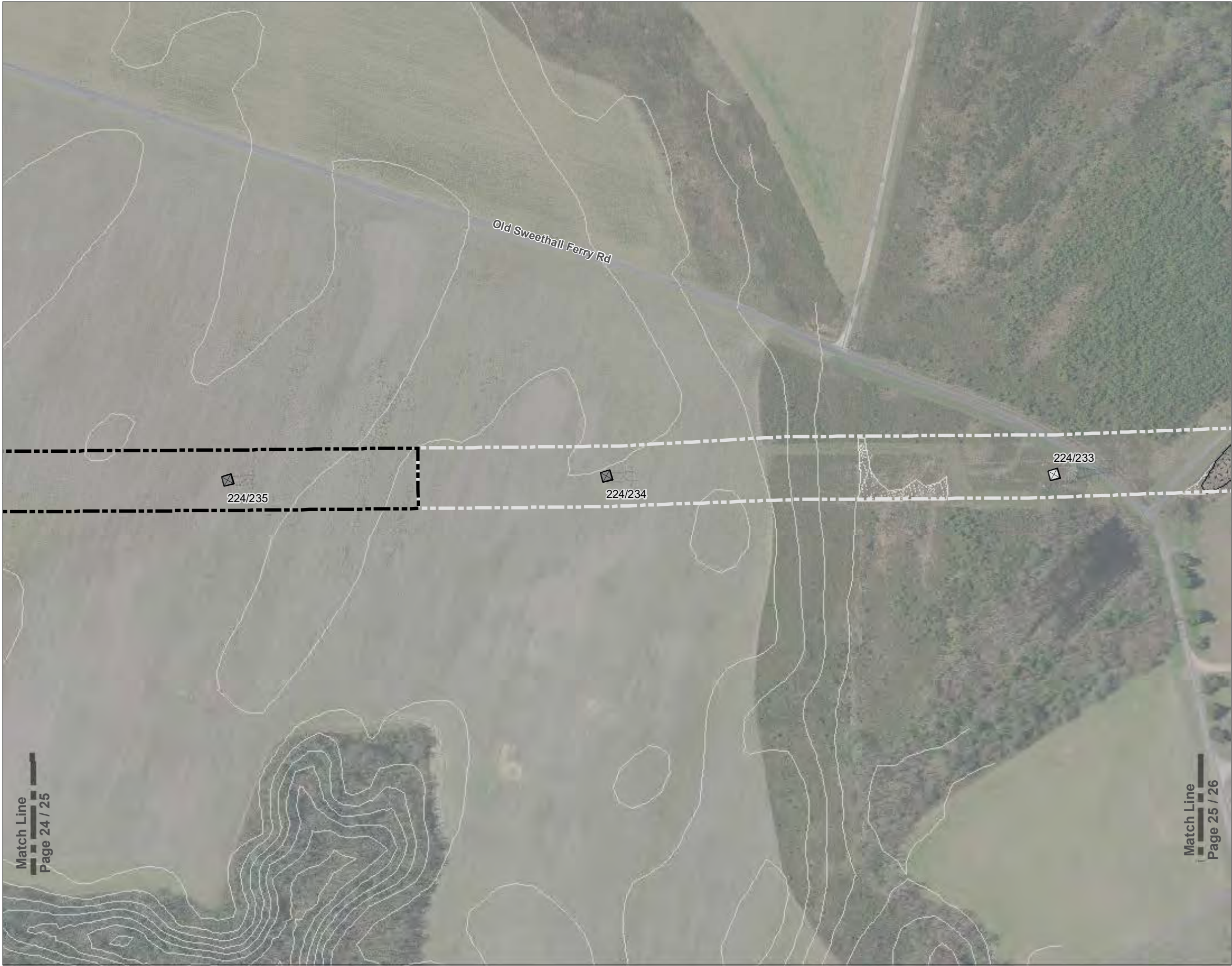


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

Palustrine Scrub-Shrub Wetland Limits (PSS)

Palustrine Emergent Wetland Limits (PEM)

2-Foot Contour

**Confirmed Delineation NAO-2018-00662**



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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5. Background: Orthoimagery © Bing Maps and © VGIN
6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



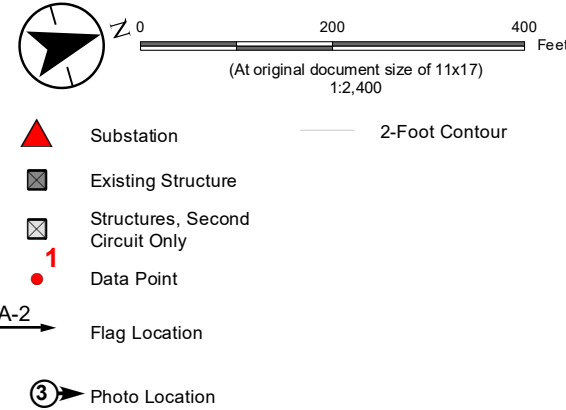




Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



- Confirmed Delineation NAO-2018-00662
- Estuarine Intertidal Emergent Wetland Limits (E2EM)
  - Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)
  - Palustrine Scrub-Shrub Wetland Limits (PSS)
  - Palustrine Emergent Wetland Limits (PEM)



Notes

- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
- Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
- Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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- Background: Orthomagey © Bing Maps and © VGIN
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Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location

Photo Location  
Study Area  
Previously Confirmed Project Limits

**Confirmed Delineation NAO-2018-00662**

Estuarine Intertidal Emergent Wetland Limits (E2EM)  
Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
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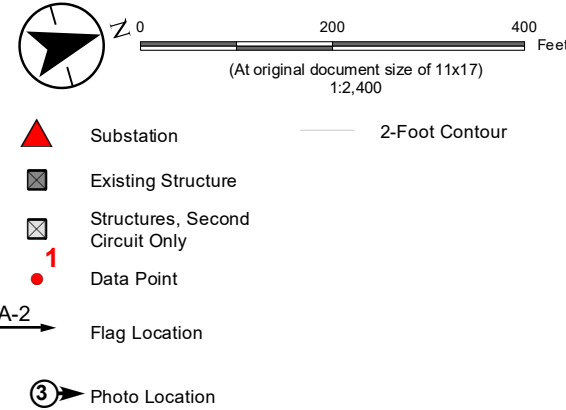




Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



**Confirmed Delineation NAO-2018-00662**

- Estuarine Intertidal Emergent Wetland Limits (E2EM)
- Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)
- Palustrine Forested Wetland Limits (PFO)
- Palustrine Emergent Wetland Limits (PEM)
- Palustrine Unconsolidated Bottom (PUB)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation







Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



- |  |                                 |                    |  |
|--|---------------------------------|--------------------|--|
|  | Substation                      |                    | 2-Foot Contour                                       |
|  | Existing Structure              | <b>Delineation</b> |  |
|  | Structures, Second Circuit Only |                    | Approximate Palustrine Emergent Wetland Limits (PEM) |
|  | Data Point                      |                    | Approximate Intermittent Stream Channel Limits (R4)  |
|  | Flag Location                   |                    |  |

Photo Location

- Study Area
- Previously Confirmed Project Limits

**Confirmed Delineation NAO-2018-00662**

- Palustrine Scrub-Shrub Wetland Limits (PSS)
- Upper Perennial Stream Channel Limits (R3)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS

3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.

4. The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter capable GPS technology and are for planning purposes only.

5. Background: Orthomagey © Bing Maps and © VGIN

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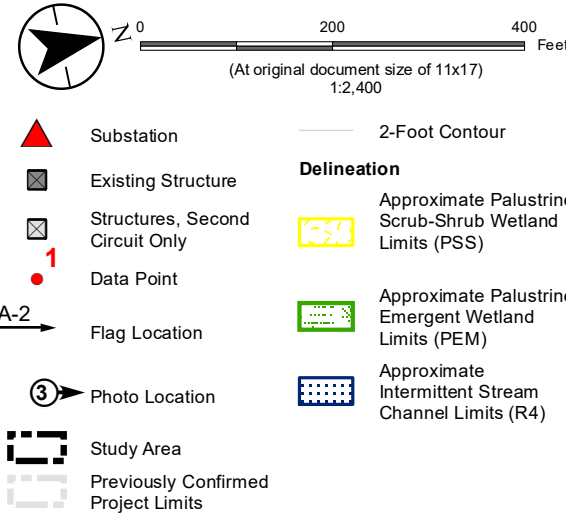


Figure No. **1**  
Title **Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

0 200 400 Feet  
(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
 Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location  
Photo Location  
Study Area  
Previously Confirmed Project Limits

2-Foot Contour



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Match Line  
Page 31 / 32

Match Line  
Page 32 / 33



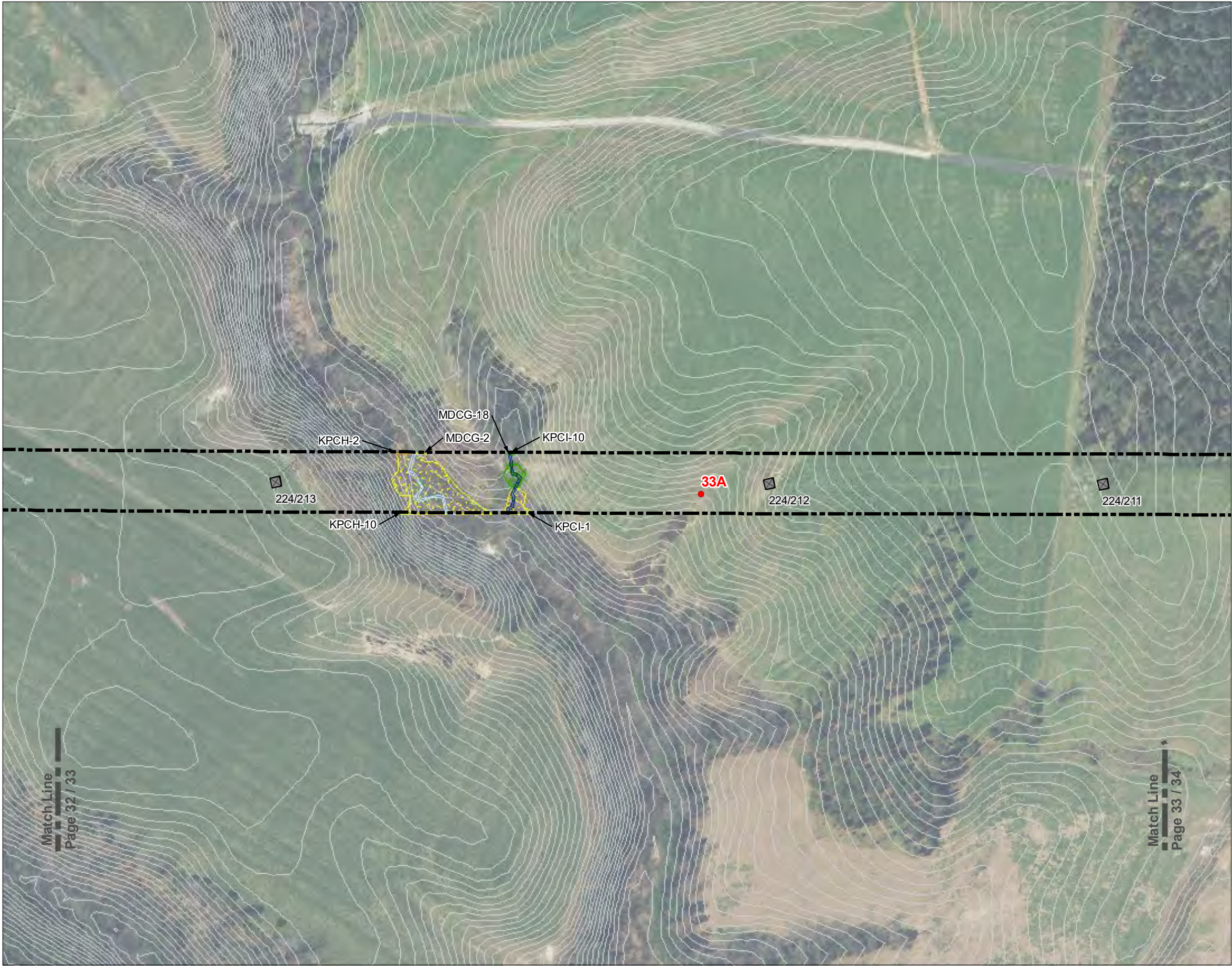
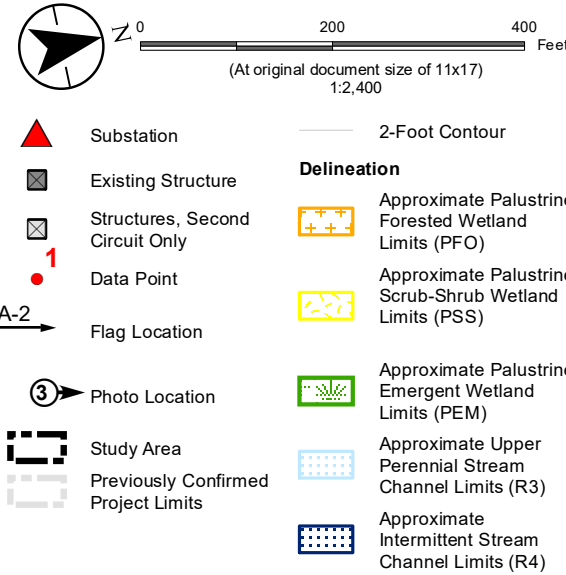


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes

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Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Forested Wetland Limits (PFO)

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
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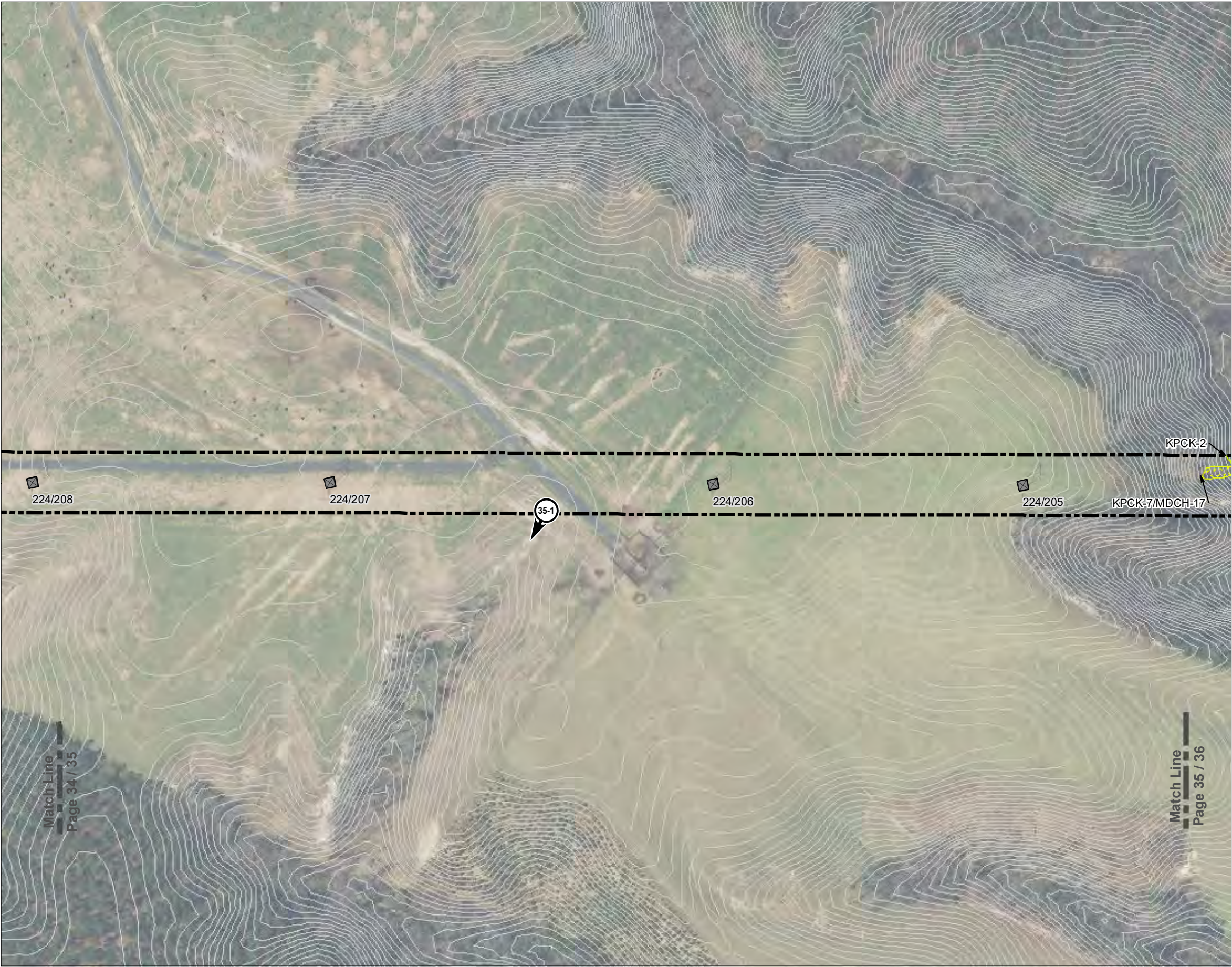


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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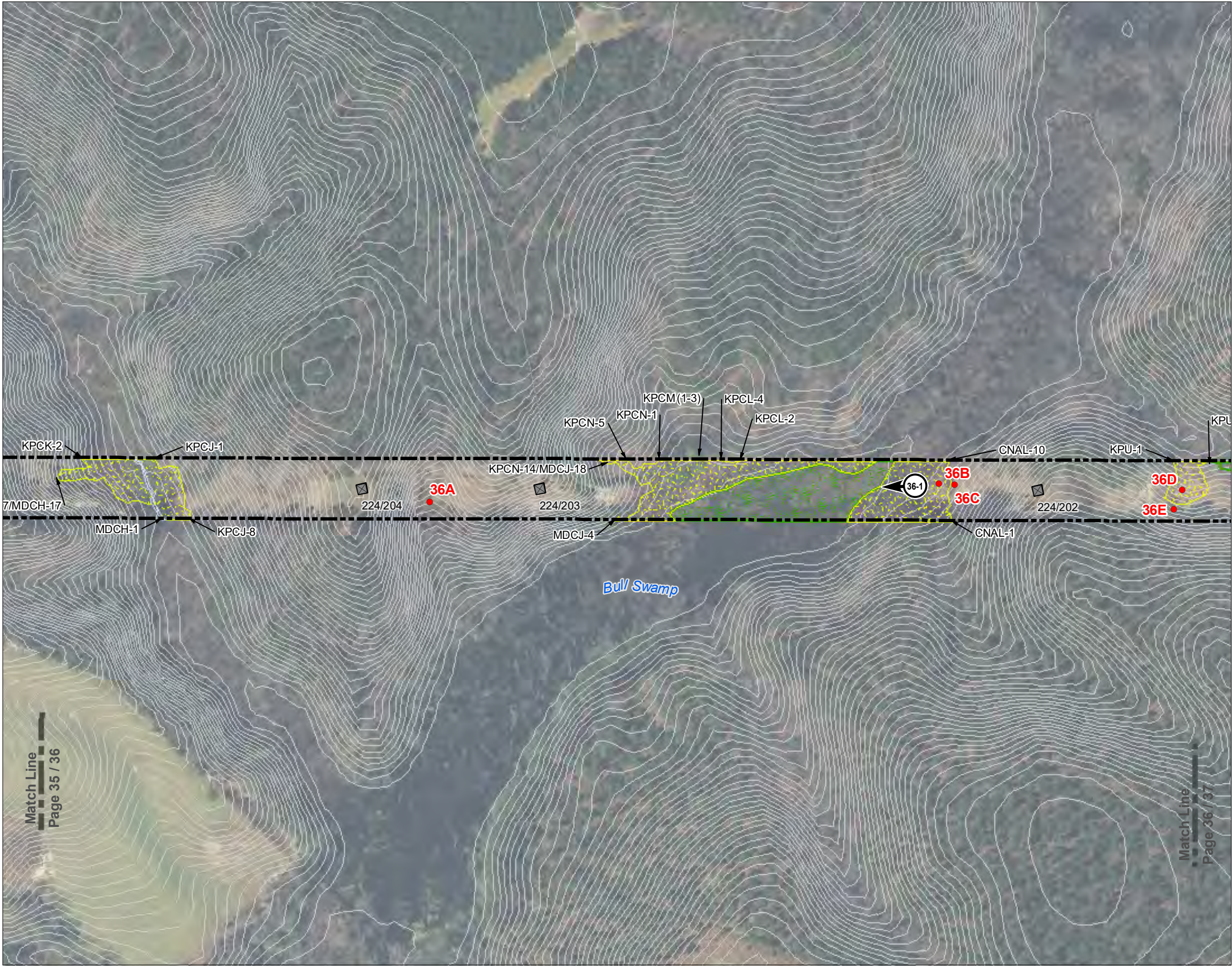
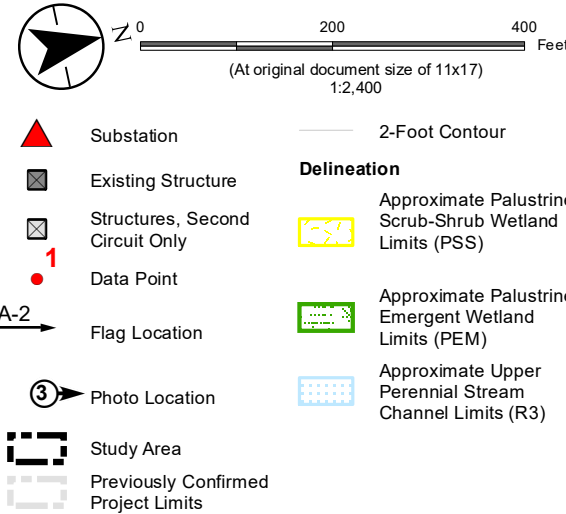


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes  
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2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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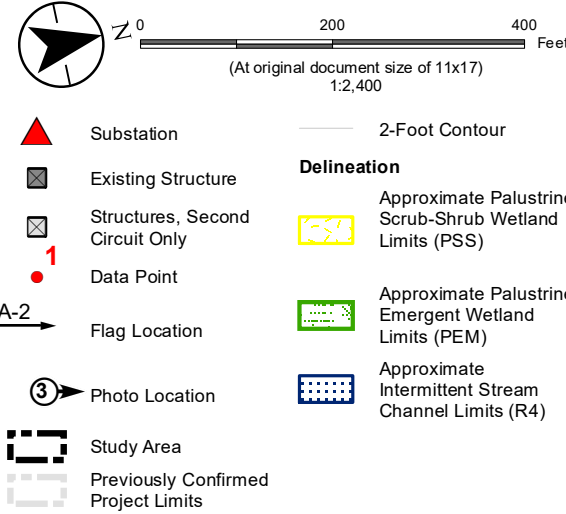






Figure No. **1**  
Title **Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location  
Photo Location

Study Area  
Previously Confirmed Project Limits

**Delineation**  
Approximate Palustrine Emergent Wetland Limits (PEM)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Forested Wetland Limits (PFO)

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)

Approximate Palustrine Unconsolidated Bottom Limits (PUB)

Approximate Jurisdictional Ditch Limits (JD)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

**Confirmed Delineation NAO-2018-00656**

Palustrine Emergent Wetland Limits (PEM)

Upper Perennial Stream Channel Limits (R3)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location  
Photo Location

Study Area  
Previously Confirmed Project Limits

**Confirmed Delineation NAO-2018-00656**

Palustrine Emergent Wetland Limits (PEM)  
Upper Perennial Stream Channel Limits (R3)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
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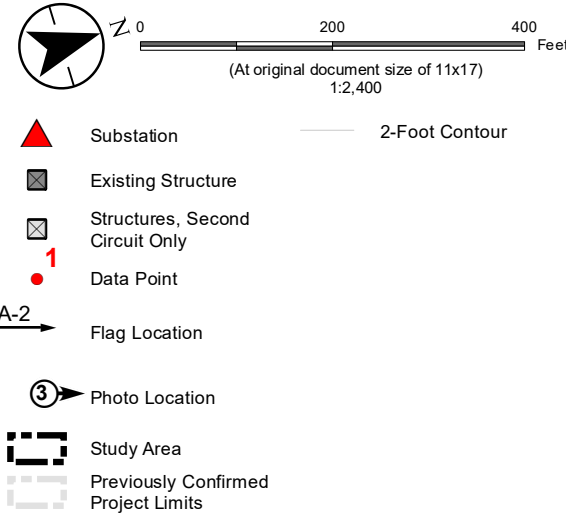




Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
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IR by CAN on 2020-08-13



- Confirmed Delineation NAO-2018-00656**
- Palustrine Scrub-Shrub Wetland Limits (PSS)
  - Palustrine Emergent Wetland Limits (PEM)
  - Riverine Tidal Unconsolidated Bottom Limits (R1UB)
  - Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
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IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location

Photo Location  
Study Area  
Previously Confirmed Project Limits

**Confirmed Delineation NAO-2018-00656**

- Palustrine Scrub-Shrub Wetland Limits (PSS)
- Palustrine Emergent Wetland Limits (PEM)
- Riverine Tidal Unconsolidated Bottom Limits (R1UB)
- Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)



**Notes**  
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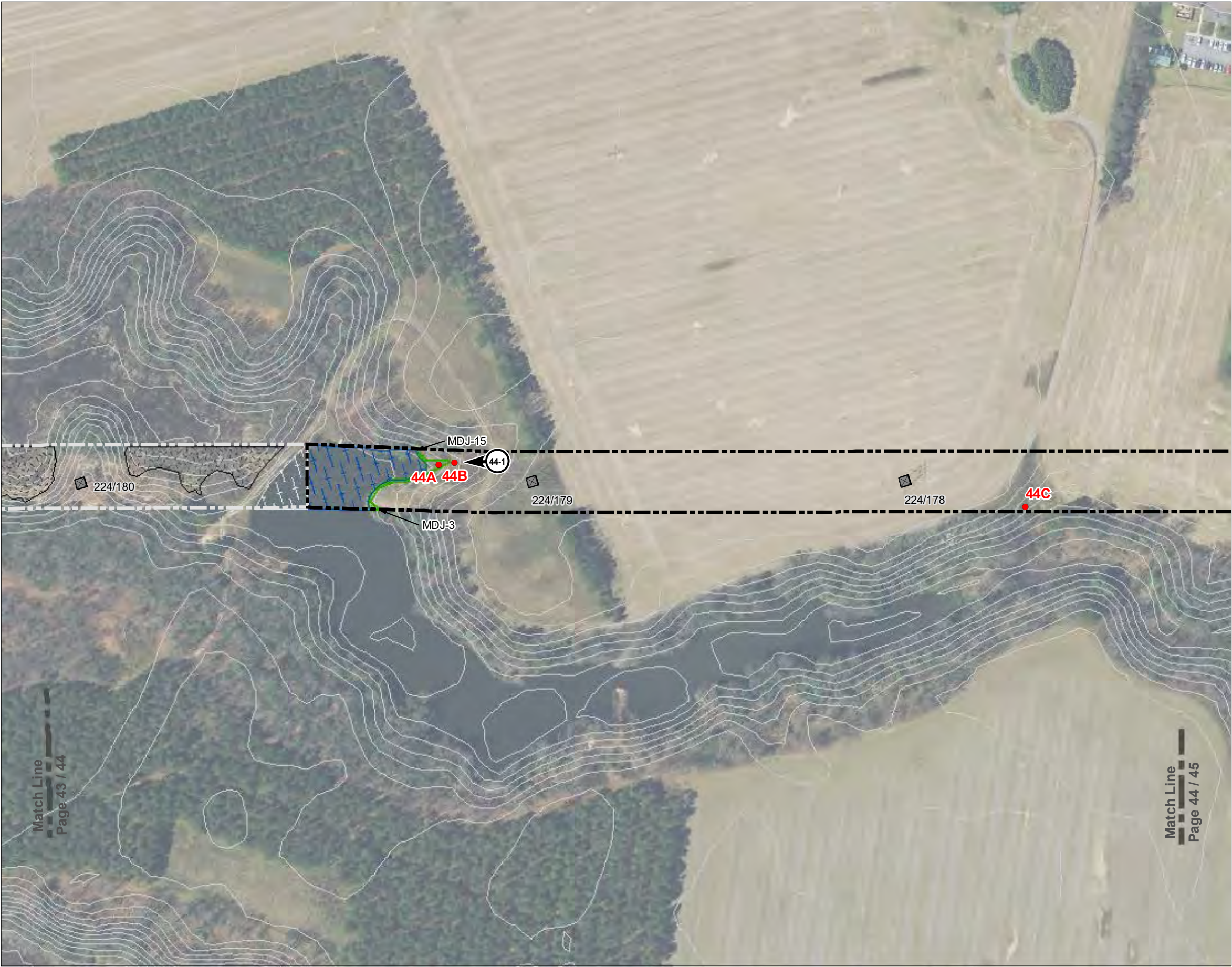


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
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IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

Confirmed Delineation NAO-2018-00656

Palustrine Scrub-Shrub Wetland Limits (PSS)

Palustrine Unconsolidated Bottom (PUB)

2-Foot Contour

**Delineation**

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Palustrine Unconsolidated Bottom Limits (PUB)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS

3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.

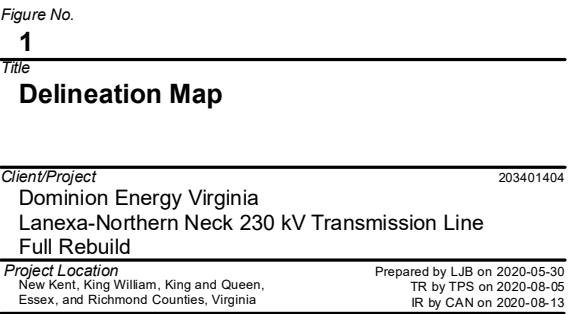
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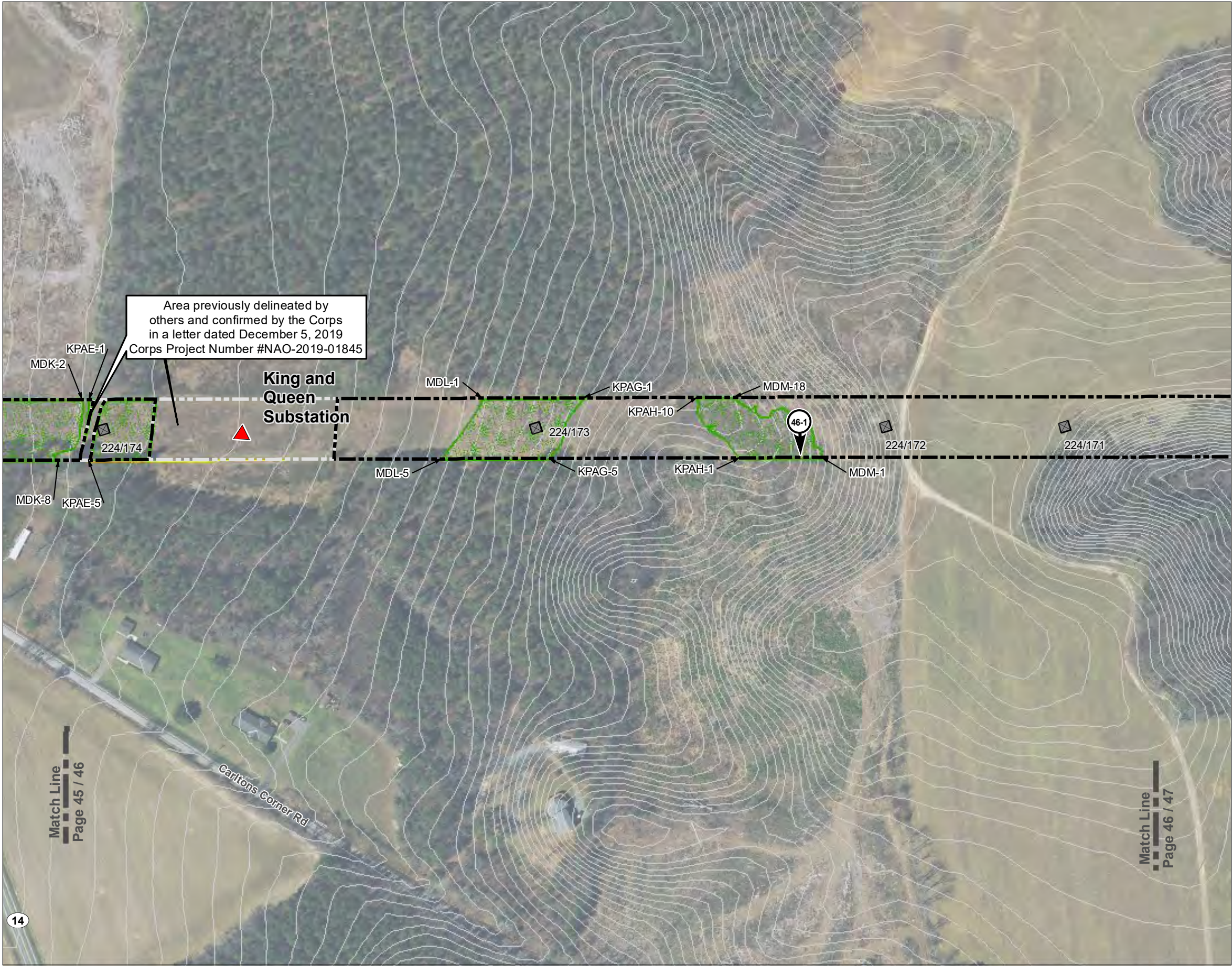
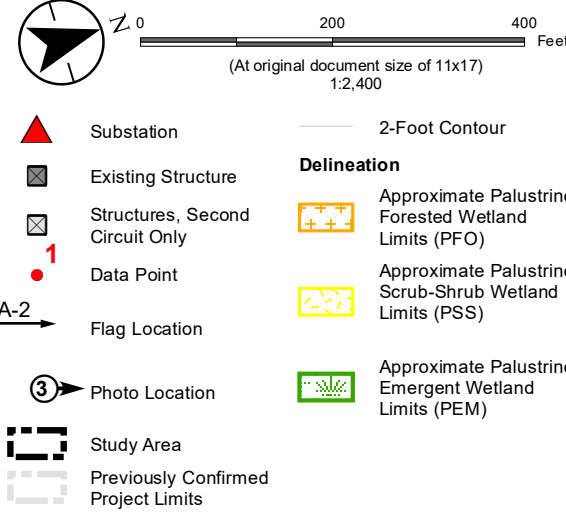


Figure No. **1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



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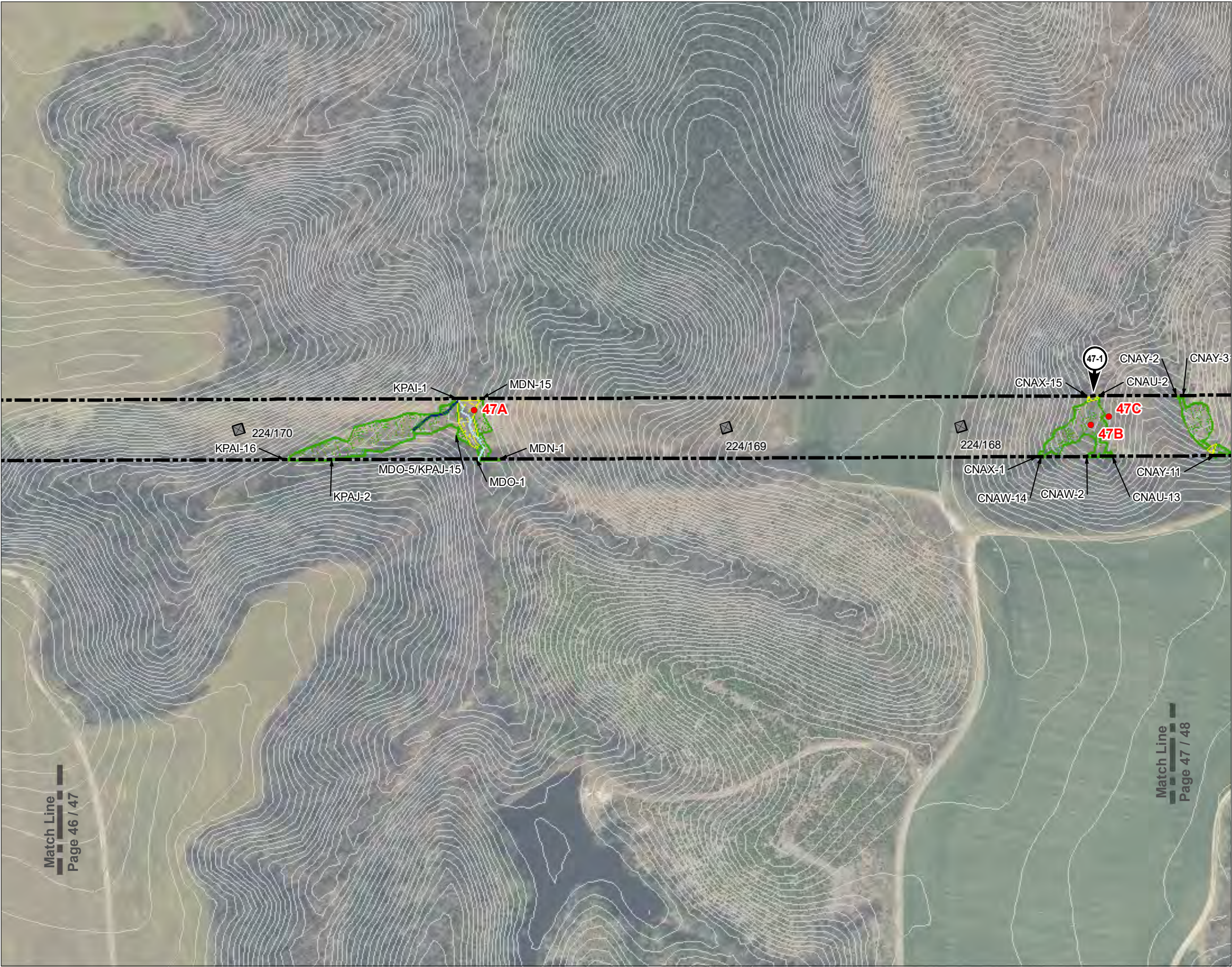


Figure No. 1  
Title Delineation Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Forested Wetland Limits (PFO)

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)

Approximate Intermittent Stream Channel Limits (R4)



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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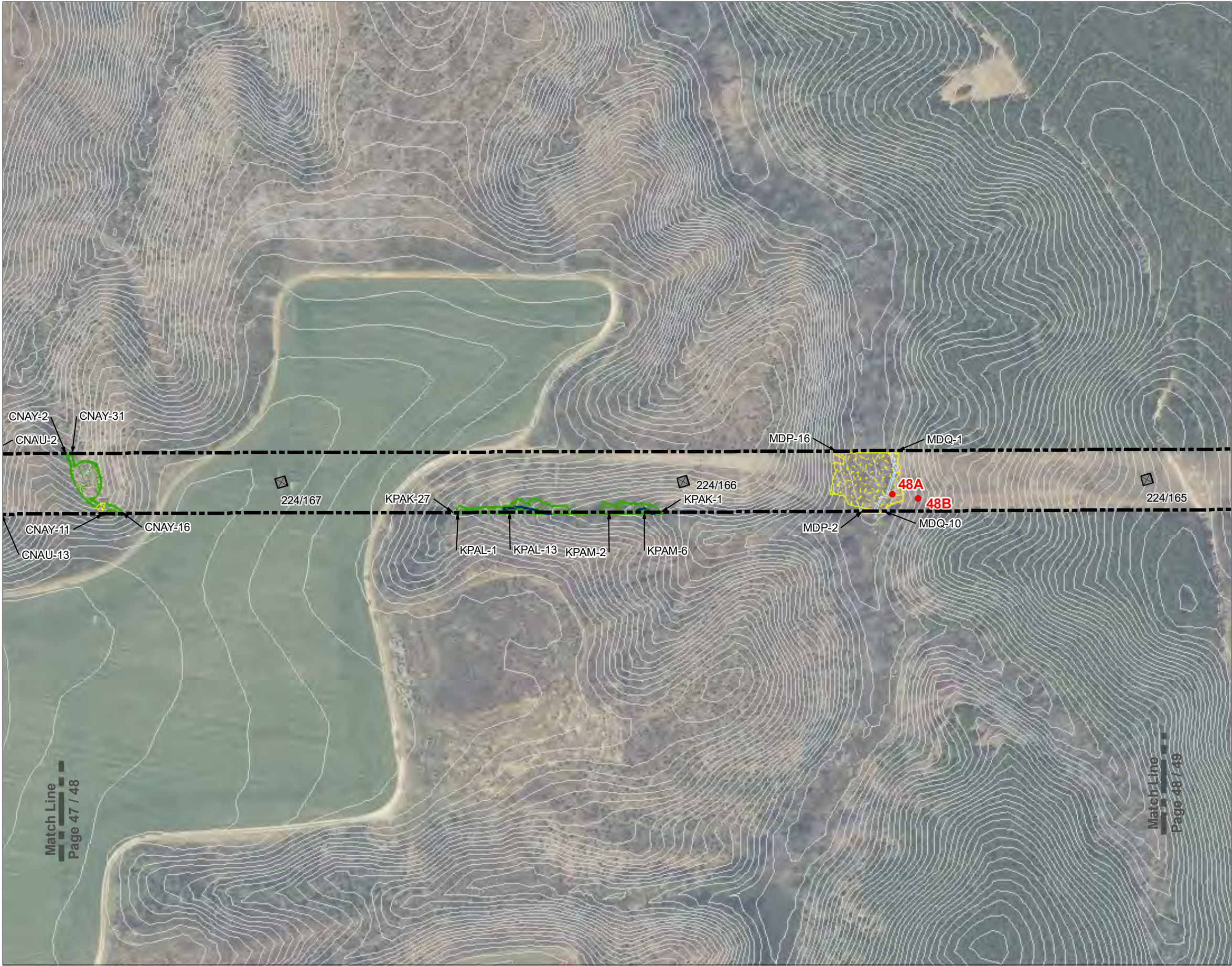


Figure No. **1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
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Figure No. **1**  
Title **Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)



**Notes**  
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Figure No.  
**1**  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
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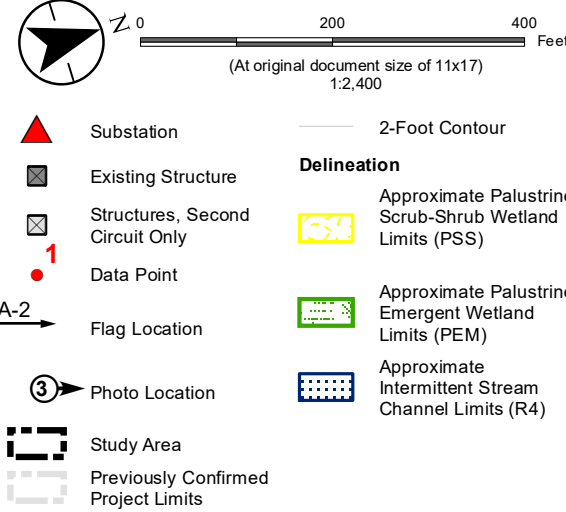




Figure No. **1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
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Full Rebuild  
203401404

Project Location  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Lower Perennial Stream Channel Limits (R2)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

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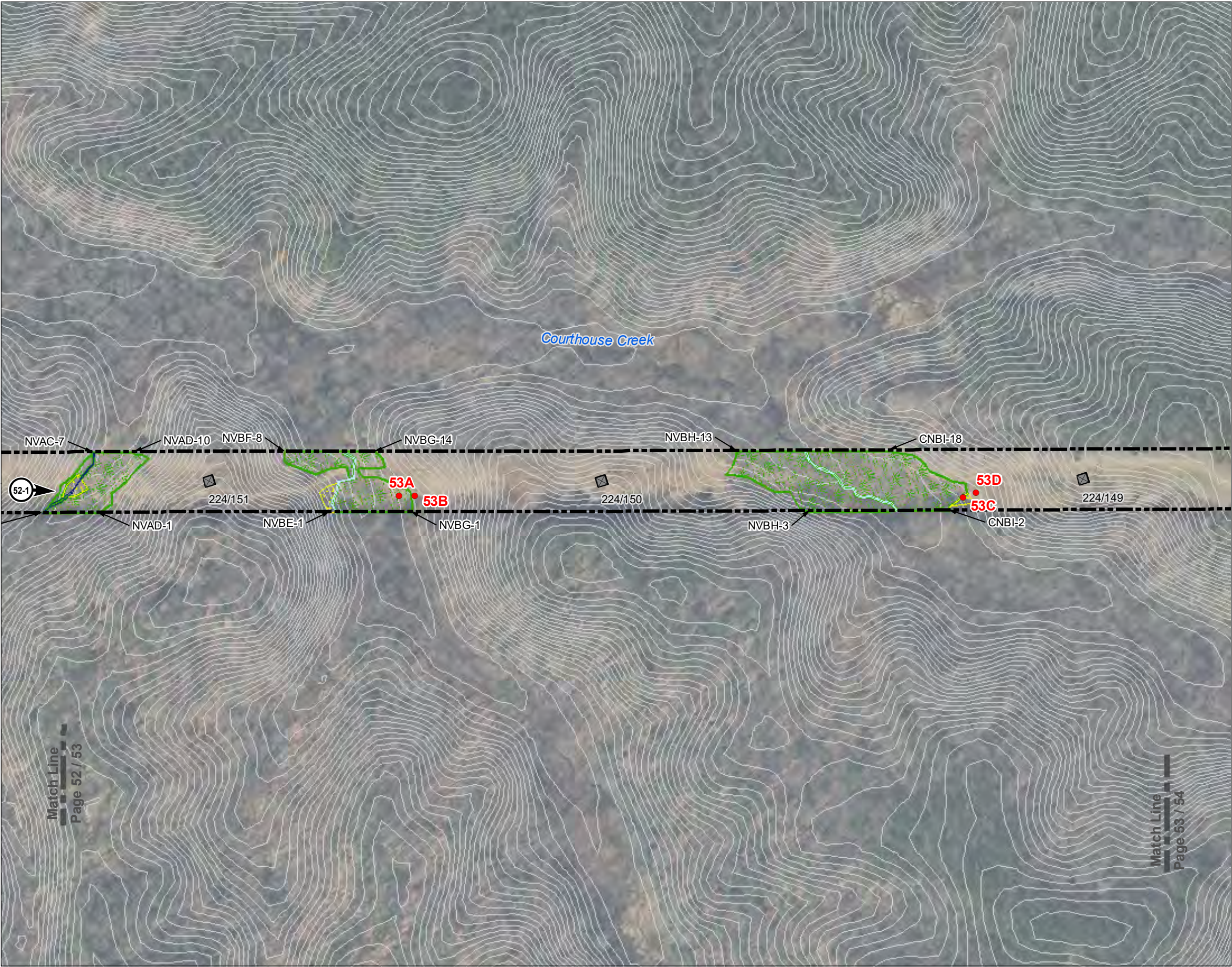
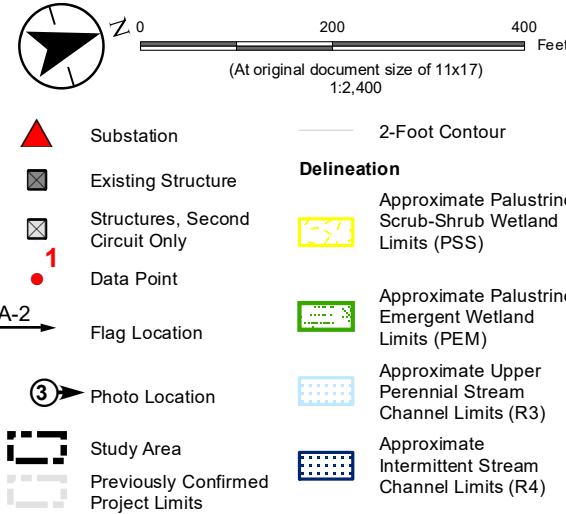


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



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Figure No.  
**1**

Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-05  
IR by CAN on 2020-08-13

0200400

Feet

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)

Approximate Ephemeral Stream Channel Limits (R6)



**Notes**

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Match Line  
Page 53 / 54

Match Line  
Page 54 / 55



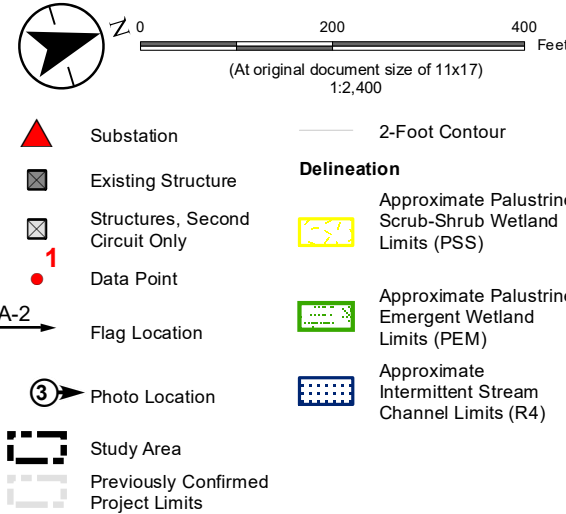


Figure No.  
**1**  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
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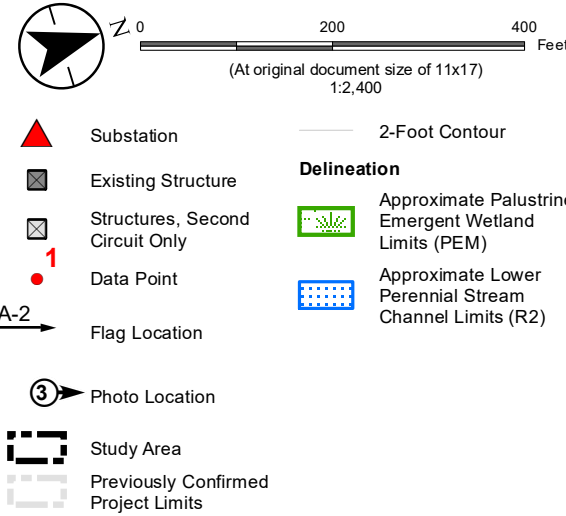




Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
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Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
 Approximate Palustrine Emergent Wetland Limits (PEM)  
 Approximate Lower Perennial Stream Channel Limits (R2)  
 Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
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Figure No. 1  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

North Arrow  
Scale: 0, 200, 400 Feet  
(At original document size of 11x17)  
1:2,400

Legend:

- Substation
- Existing Structure
- Structures, Second Circuit Only
- Data Point
- Flag Location
- Photo Location
- Study Area
- Previously Confirmed Project Limits
- 2-Foot Contour
- Delineation
  - Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)
  - Approximate Palustrine Emergent Wetland Limits (PEM)
  - Approximate Lower Perennial Stream Channel Limits (R2)
  - Approximate Intermittent Stream Channel Limits (R4)



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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Figure No. 1  
Title Delineation Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

0200400

Feet

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

DelineationApproximate Palustrine Emergent Wetland Limits (PEM)2-Foot Contour

Notes  
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Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)



**Notes**

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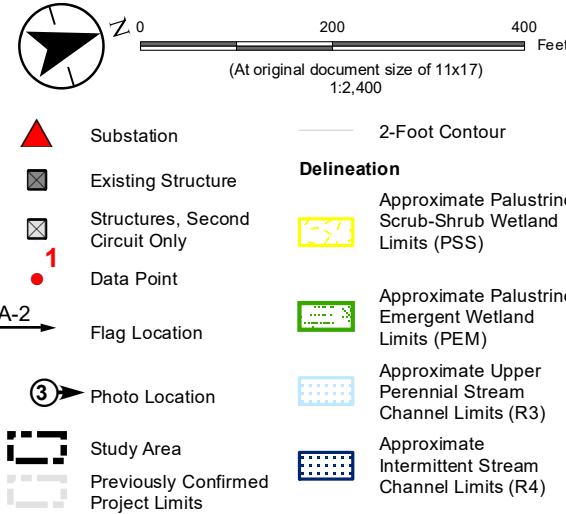


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
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**Notes**

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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)

Approximate Intermittent Stream Channel Limits (R4)

**Delineation**



**Notes**  
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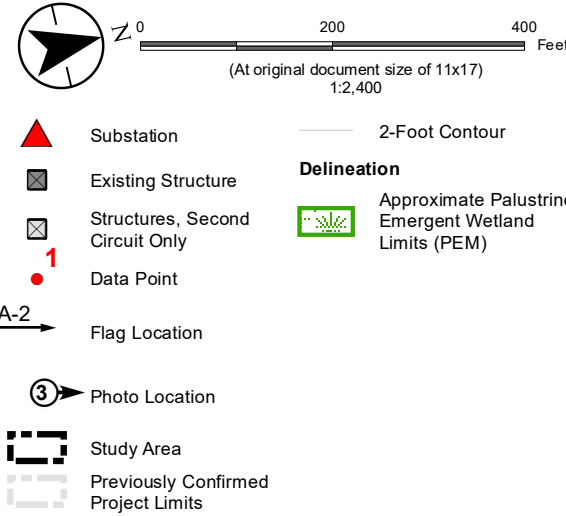




Figure No. **1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Delineation

Approximate Palustrine Emergent Wetland Limits (PEM)



- Notes
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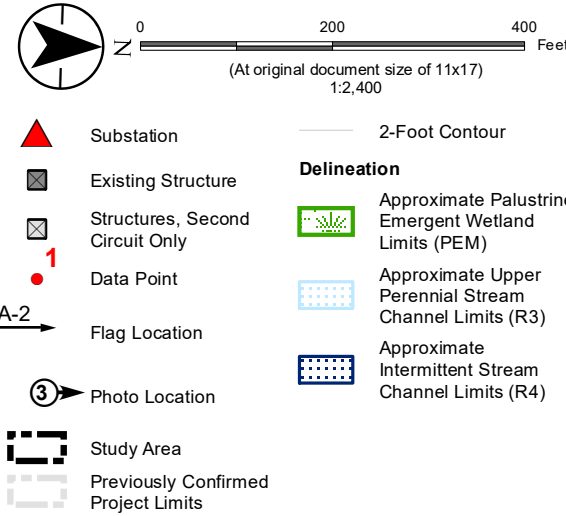






Figure No. 1  
Title Delineation Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
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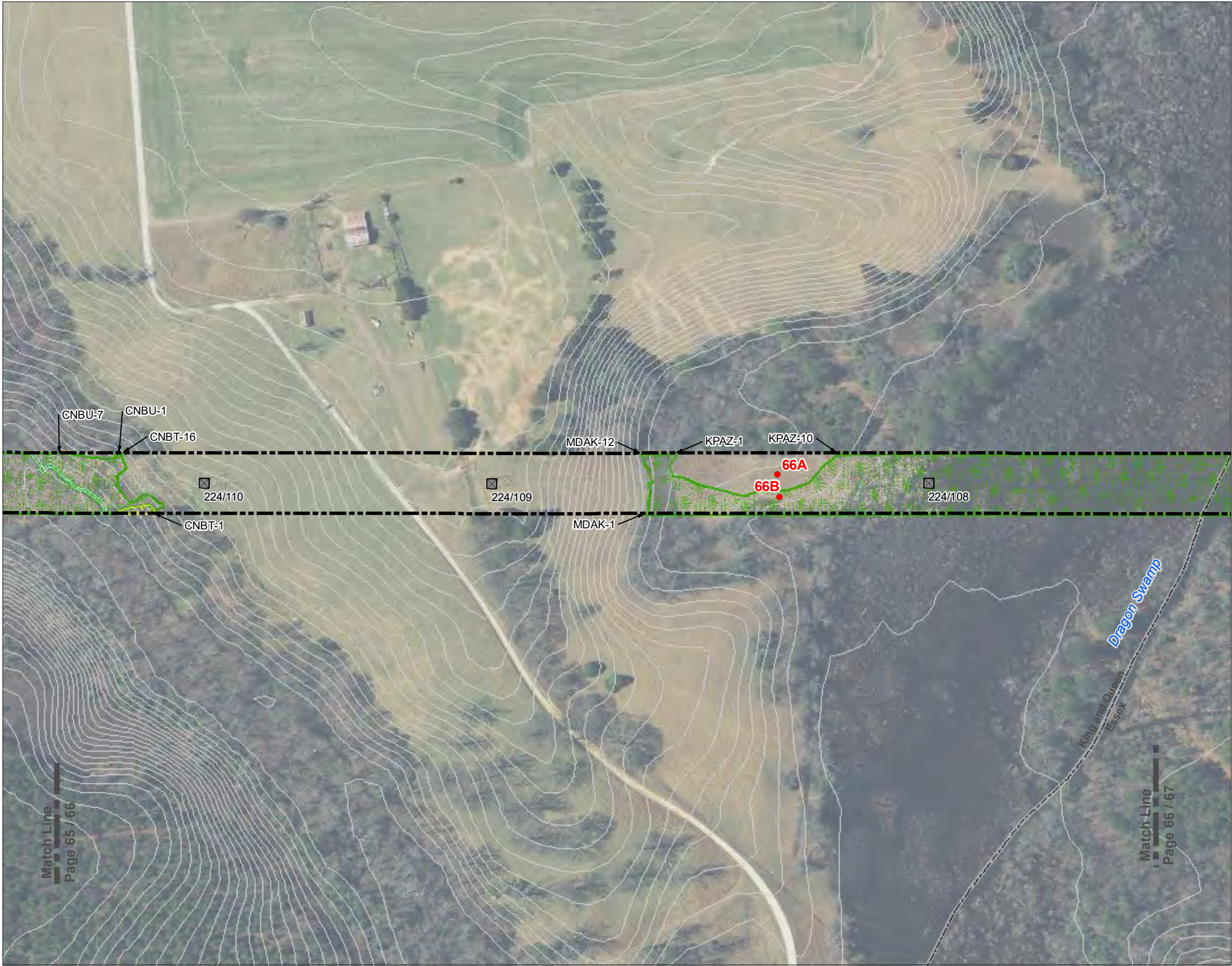


Figure No.  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

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Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)



**Notes**

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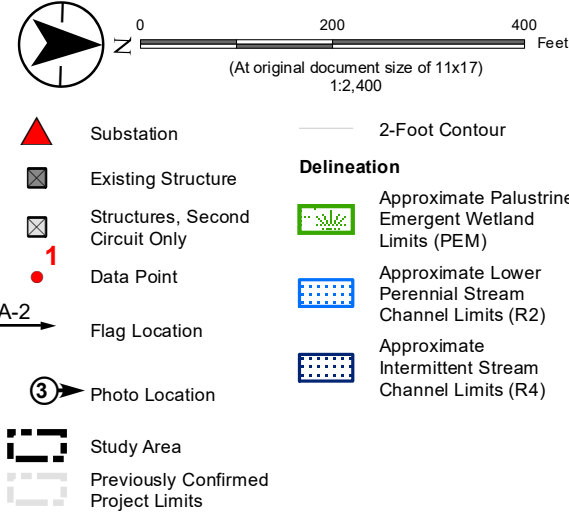




Figure No.  
**1**  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
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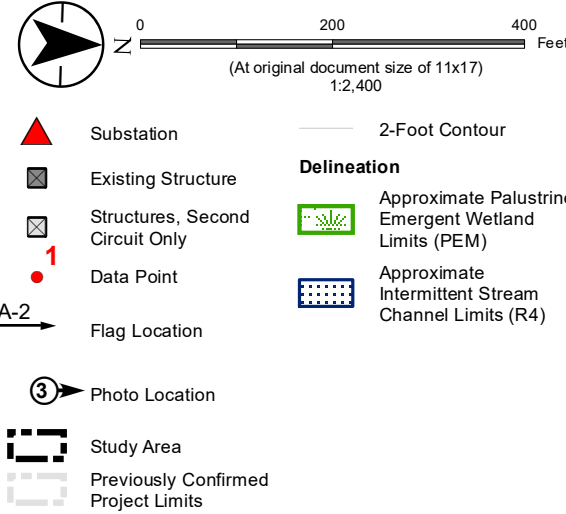




Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
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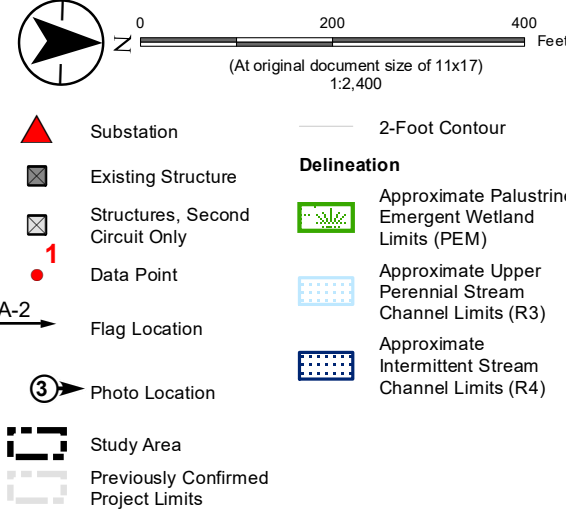




Figure No.  
**1**  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

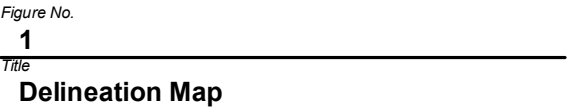
Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



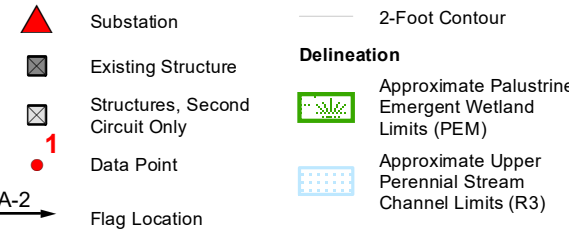
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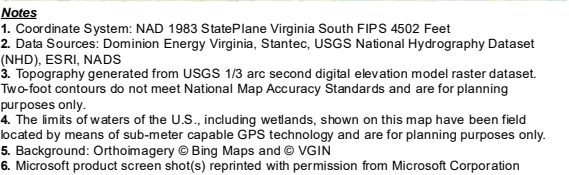


<b>Project Location</b>	Prepared by LJB on 2020-05-30
New Kent, King William, King and Queen,	TR by TPS on 2020-08-05
Essex, and Richmond Counties, Virginia	IR by CAN on 2020-08-13



 Study Area

 Previously Confirmed Project Limits





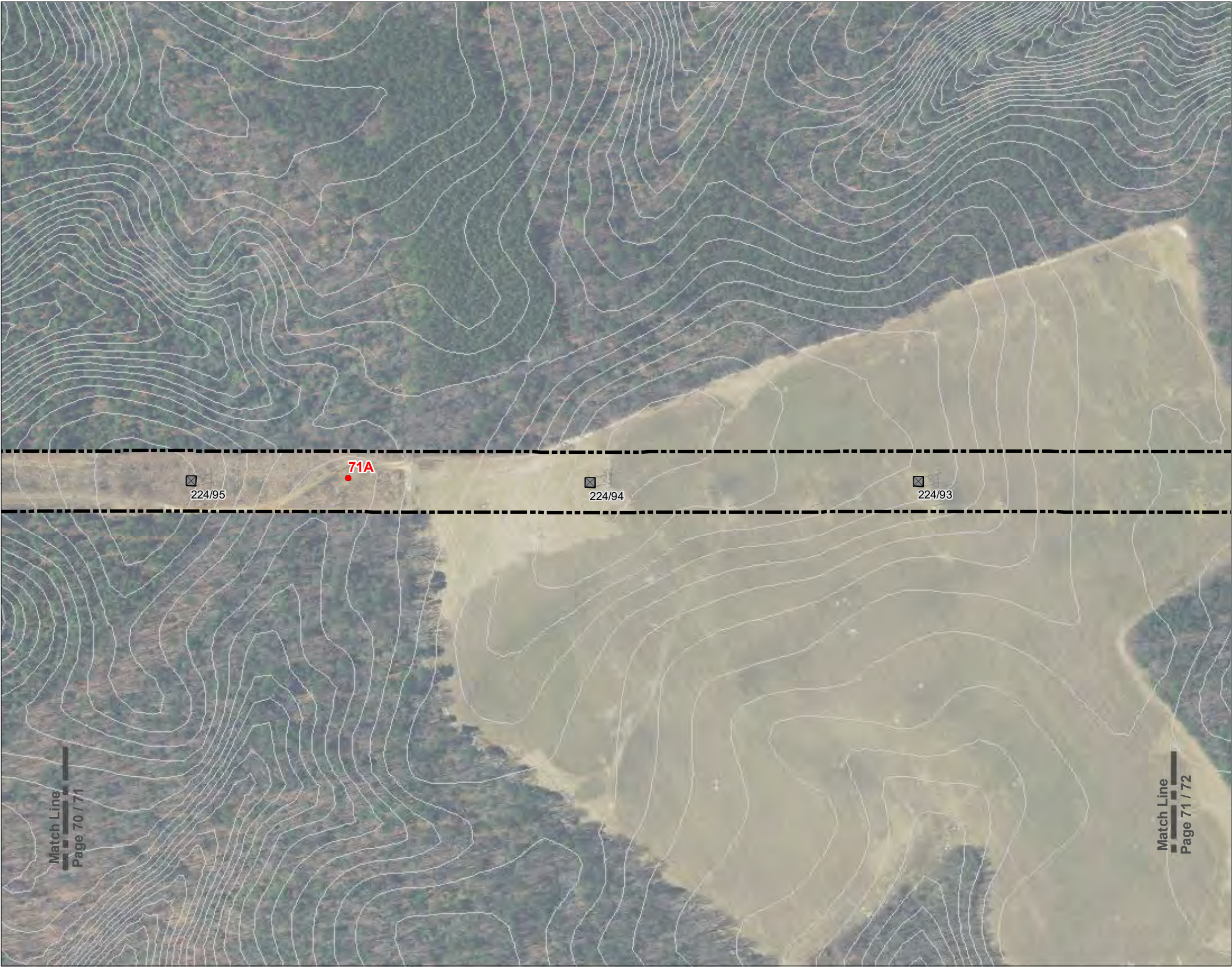
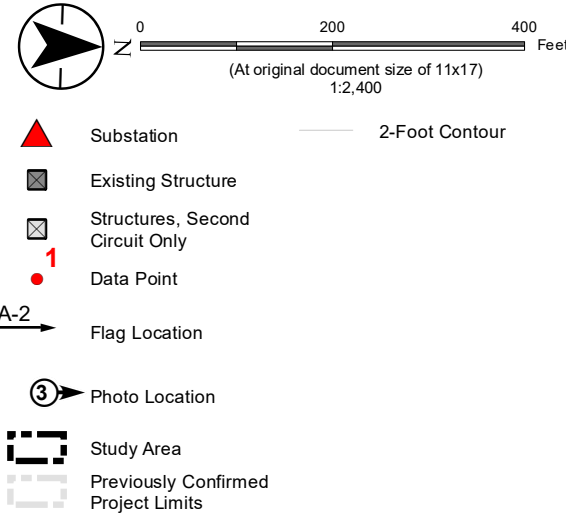


Figure No.  
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Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
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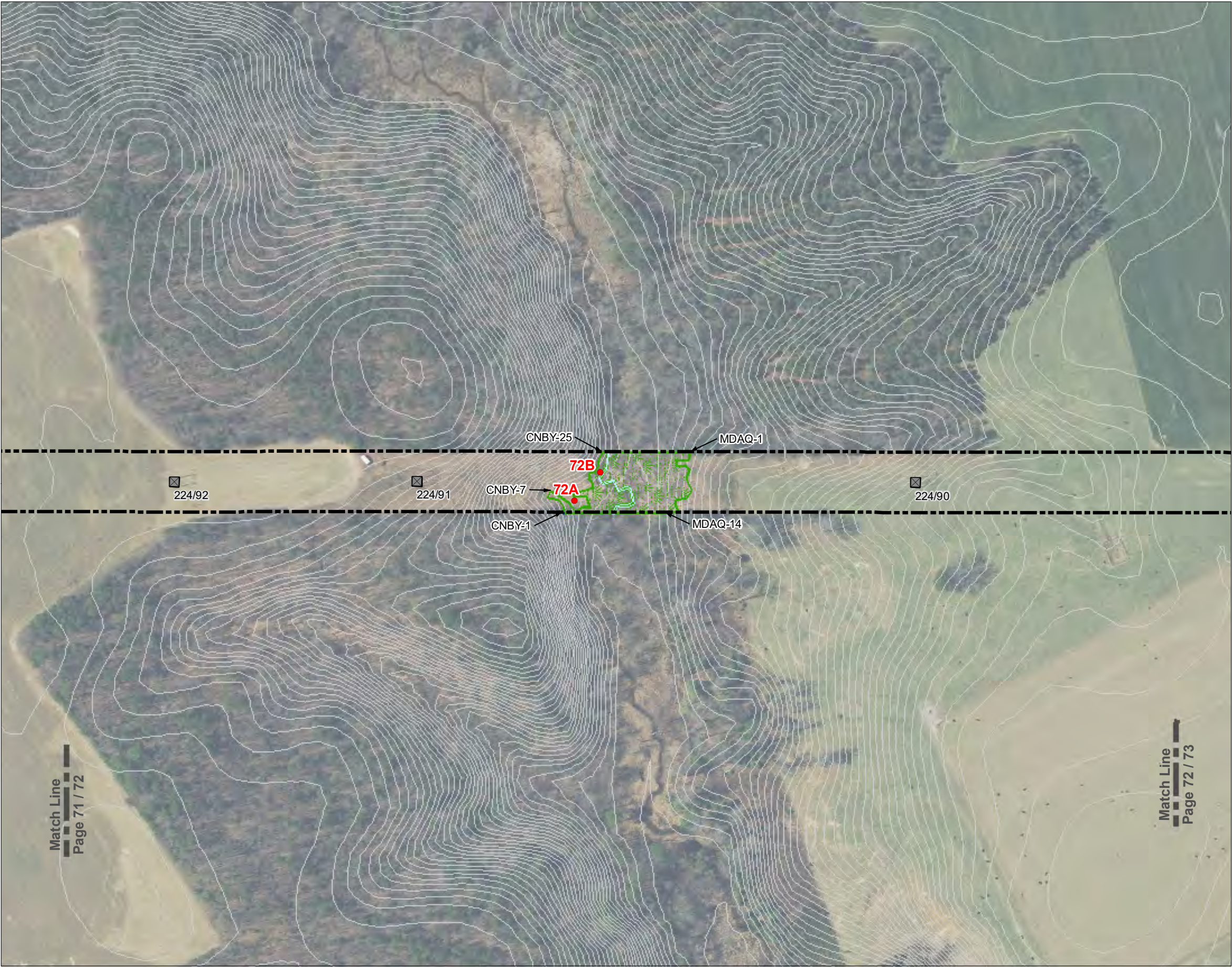
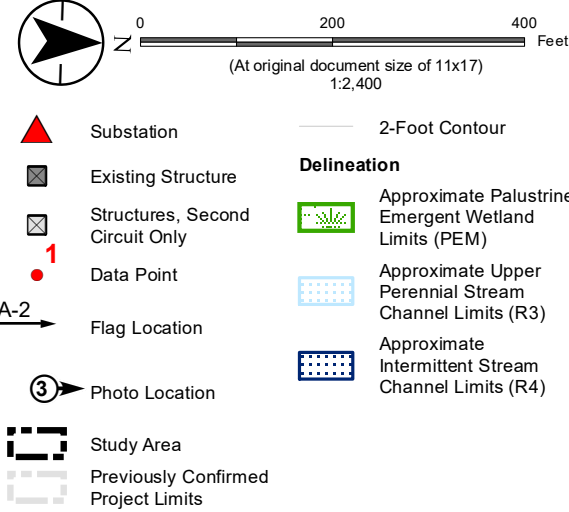


Figure No.  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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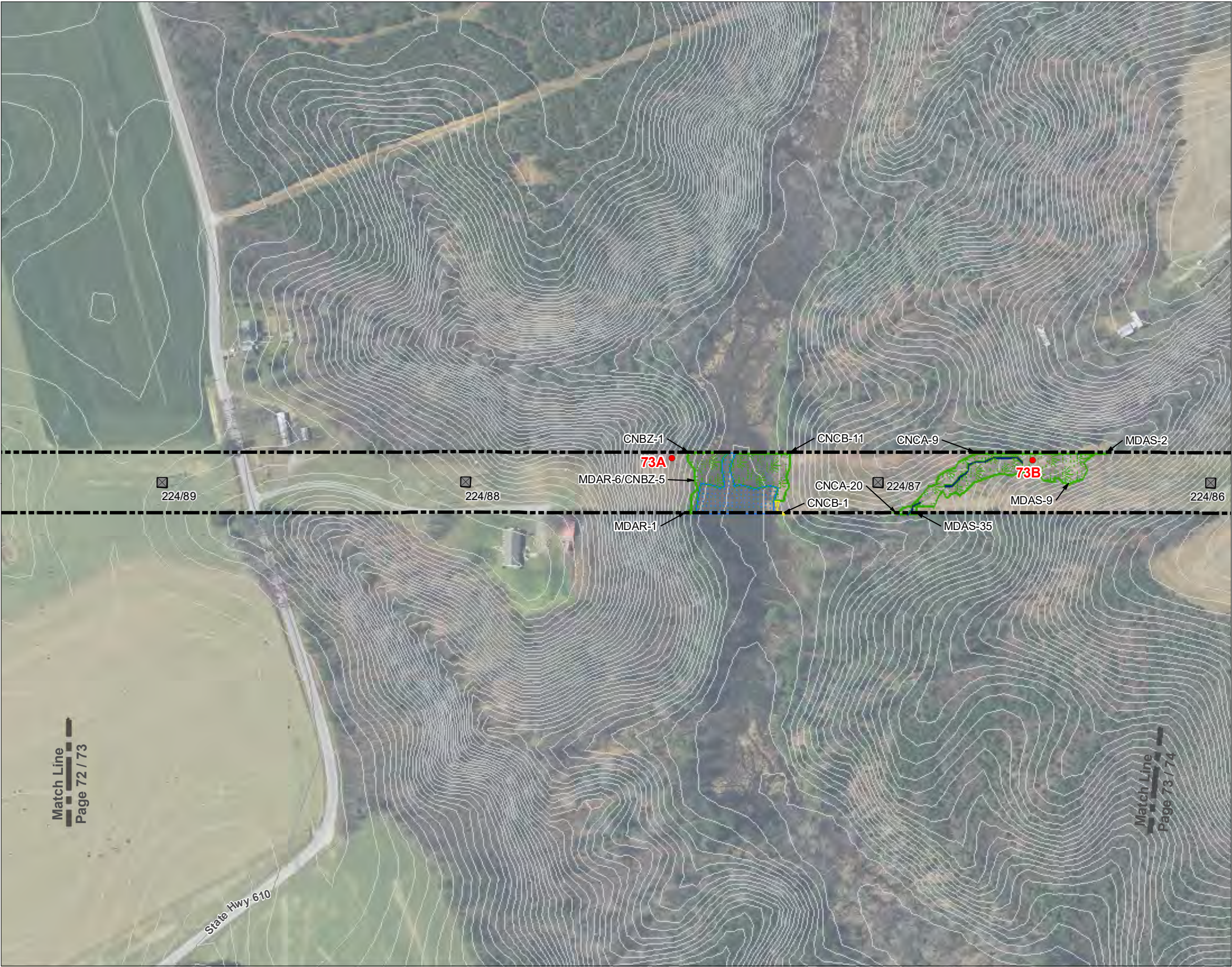
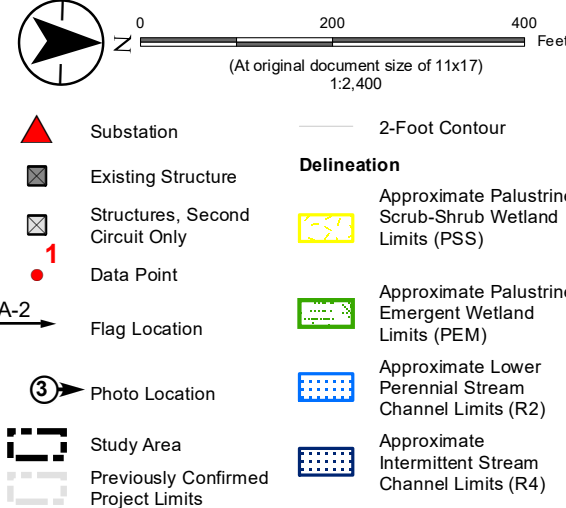


Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
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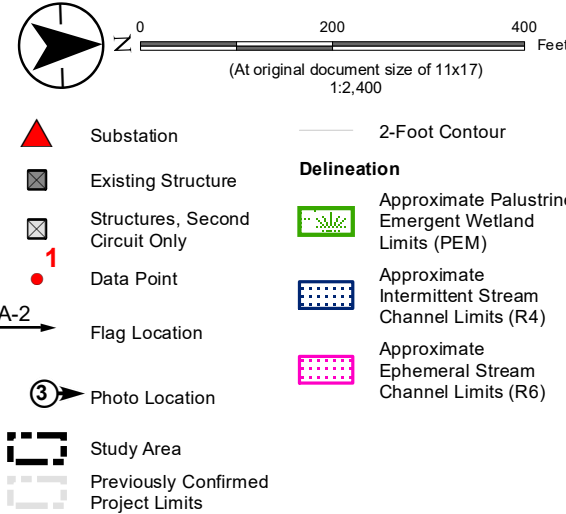




Figure No.  
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**Delineation Map**

Client/Project  
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Full Rebuild  
203401404

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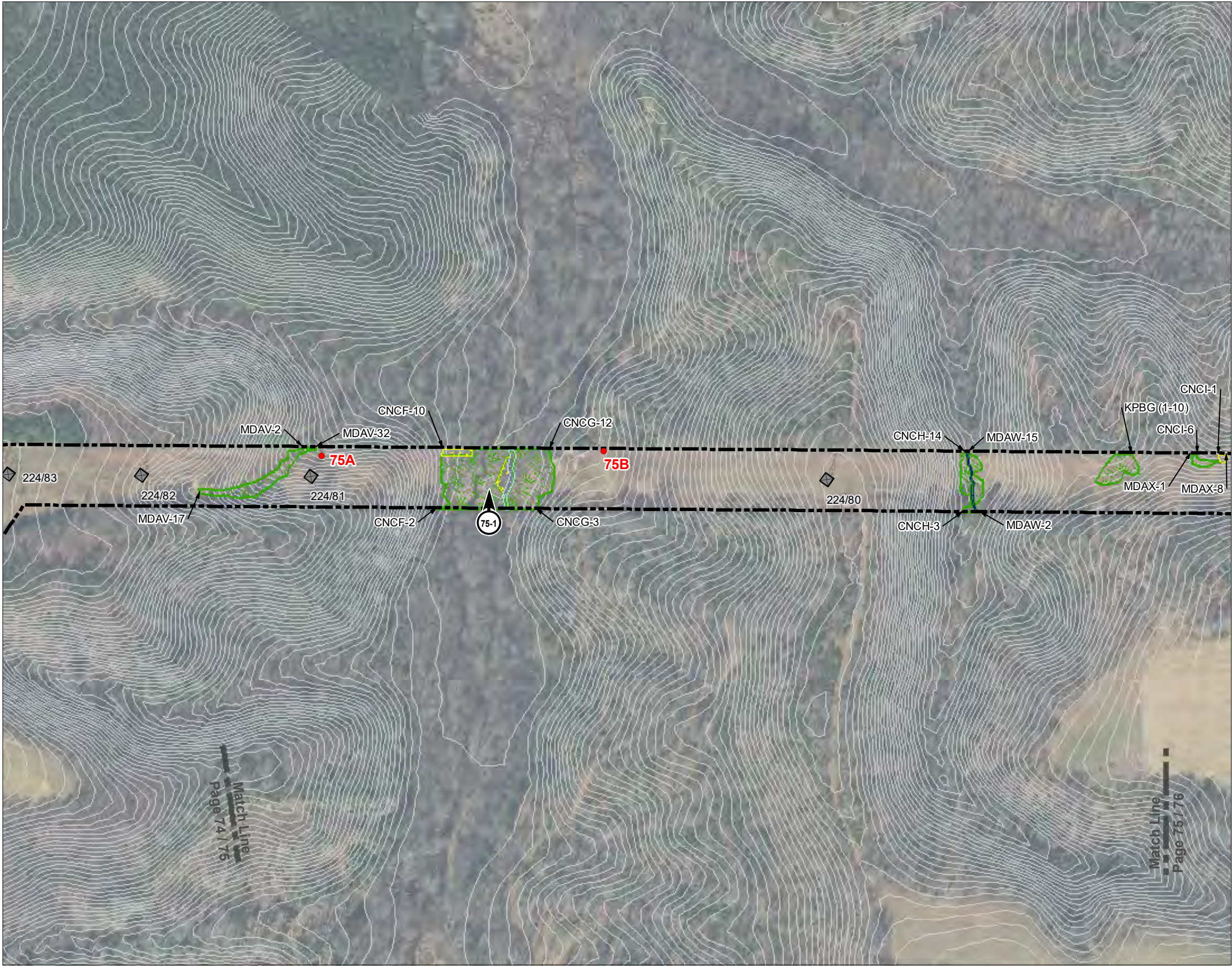
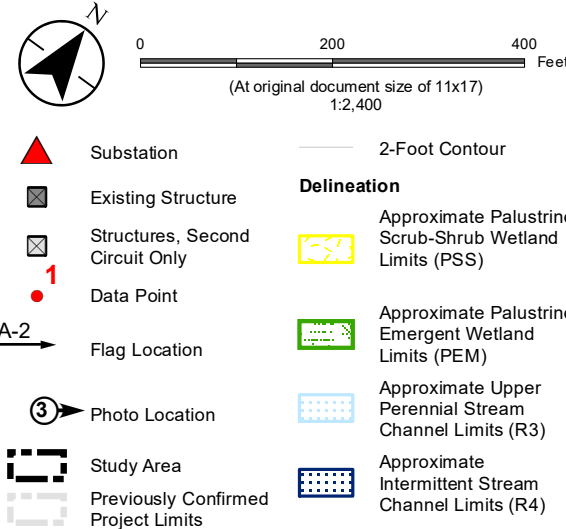


Figure No.  
**1**  
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Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
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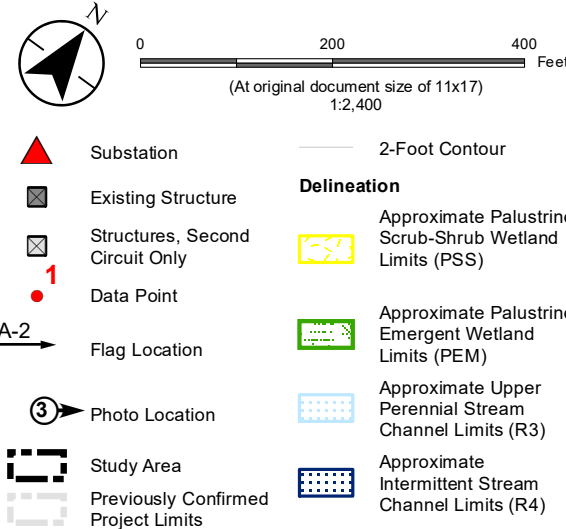


Figure No.  
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**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
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Prepared by LJB on 2020-05-30  
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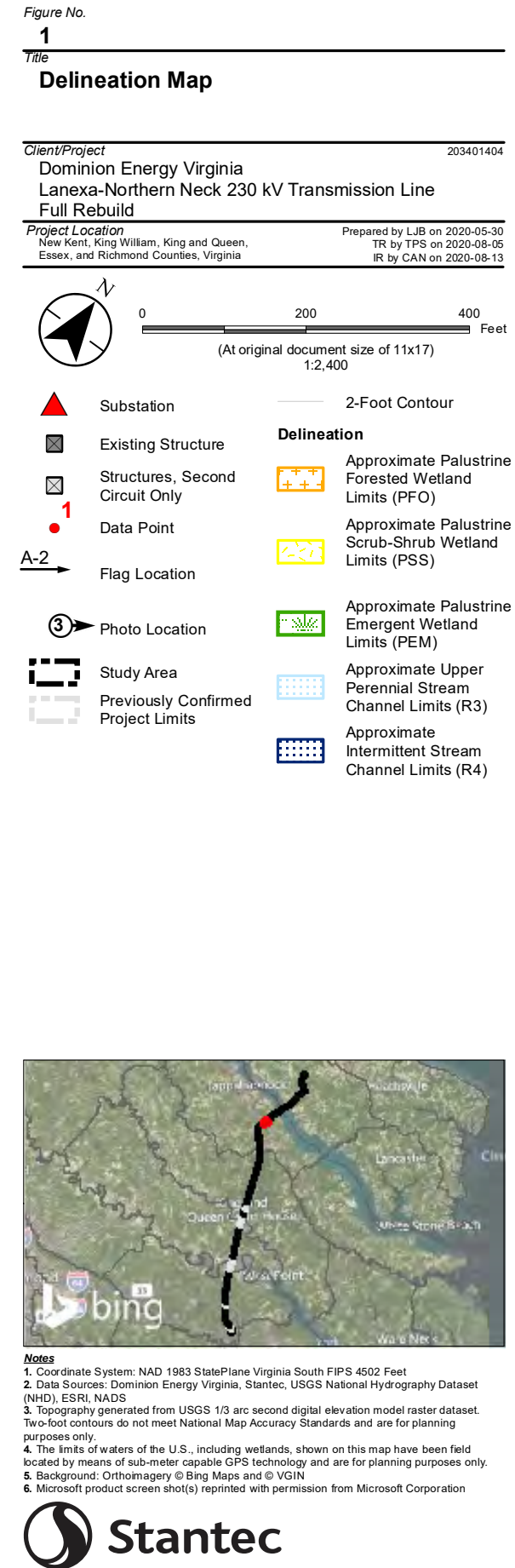


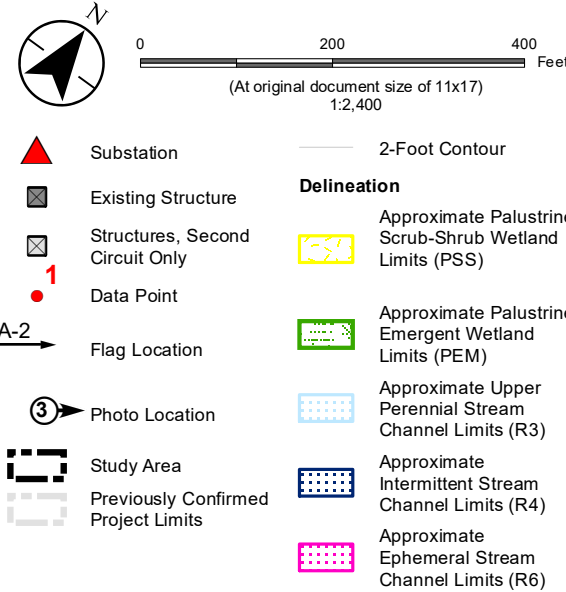




Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
4. The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter capable GPS technology and are for planning purposes only.  
5. Background: Orthomagey © Bing Maps and © VGIN  
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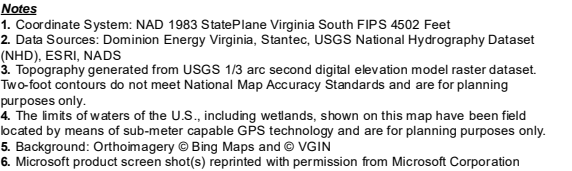
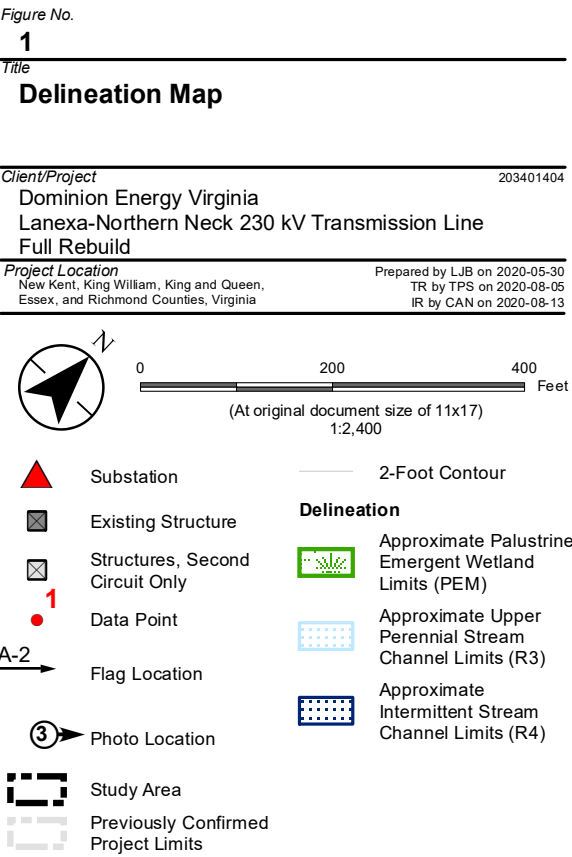






Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Estuarine Intertidal Emergent Wetland Limits (E2EM)

Approximate Palustrine Emergent Wetland Limits (PEM)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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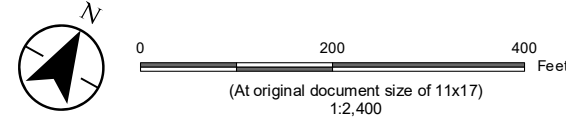
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Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



- |  |                                 |                    |  |
|--|---------------------------------|--------------------|--|
|  | Substation                      |                    | 2-Foot Contour   |
|  | Existing Structure              | <b>Delineation</b> |  |
|  | Structures, Second Circuit Only |                    | Approximate Estuarine Intertidal Emergent Wetland Limits (E2EM)    |
|  | Data Point                      |                    | Approximate Estuarine Subtidal Unconsolidated Bottom Limits (E1UB) |
|  | Flag Location                   |                    |  |

Photo Location

- Study Area
- Previously Confirmed Project Limits

**Confirmed Delineation NAO-2016-00937**

- Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)
- Estuarine Intertidal Emergent Wetland Limits (E2EM)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS

3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.

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5. Background: Orthomagey © Bing Maps and © VGIN

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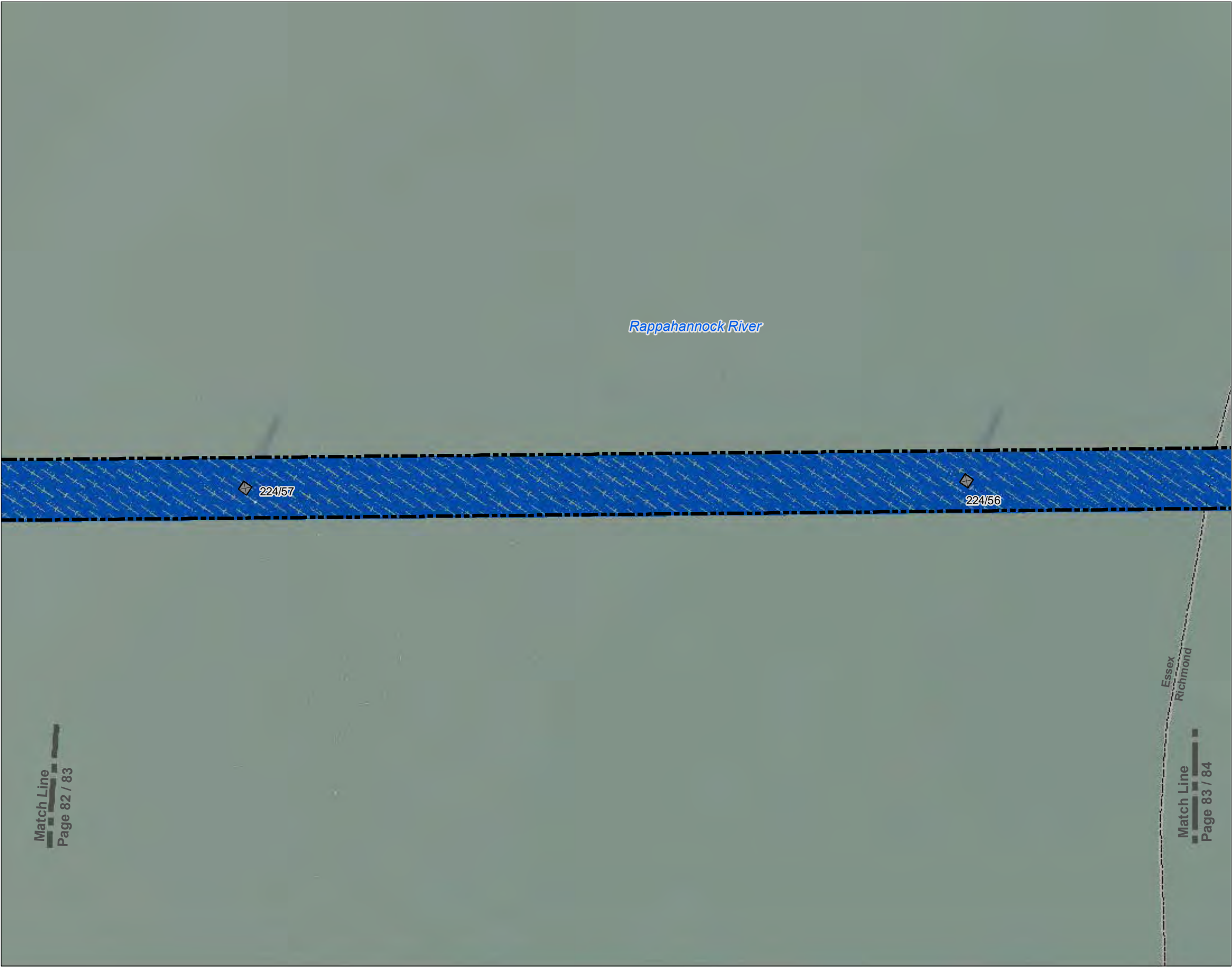


Figure No.  
**1**  
Title  
**Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
Approximate Estuarine Subtidal  
Unconsolidated Bottom Limits (E1UB)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
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6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



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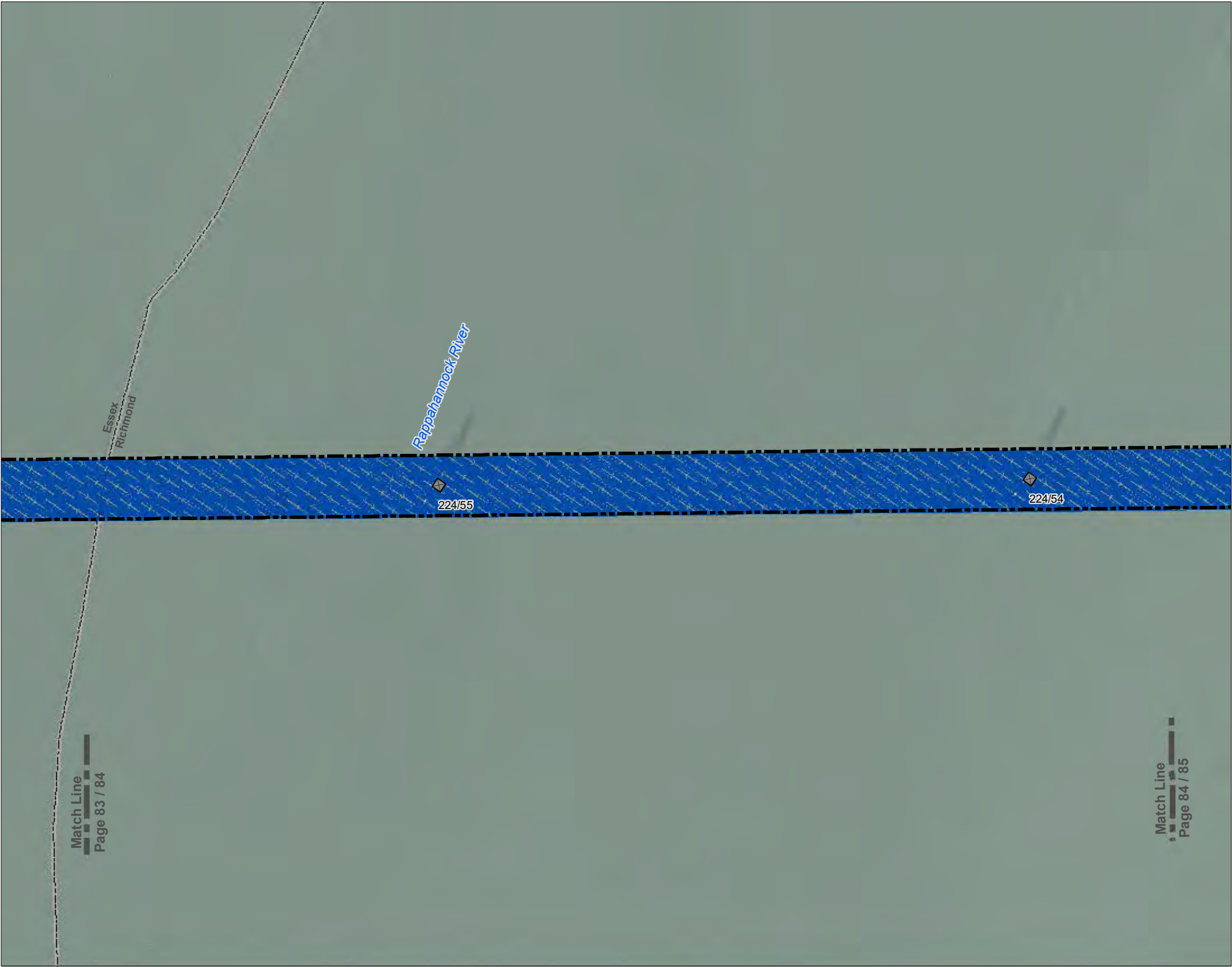
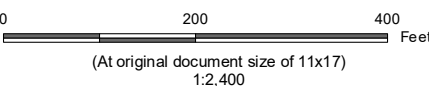
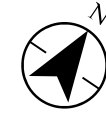




Figure No.  
**1**  
Title  
**Delineation Map**


**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404


**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13





 Substation


 Existing Structure


 Structures, Second Circuit Only


 Data Point


 Flag Location

 Photo Location

 Study Area

 Previously Confirmed Project Limits

 2-Foot Contour

 Approximate Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

	Substation		2-Foot Contour
	Existing Structure	<b>Delineation</b>	
	Structures, Second Circuit Only		Approximate Estuarine Intertidal Emergent Wetland Limits (E2EM)
	Data Point		Approximate Estuarine Intertidal Scrub-Shrub Wetland Limits (E2SS)
	Flag Location		Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)
	Photo Location		Approximate Palustrine Emergent Wetland Limits (PEM)
	Study Area		Approximate Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)
	Previously Confirmed Project Limits		



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Match Line  
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Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
 Existing Structure  
 Structures, Second Circuit Only  
 Data Point  
 Flag Location  
 Photo Location  
 Study Area  
 Previously Confirmed Project Limits

**Delineation**  
 Approximate Estuarine Intertidal Emergent Wetland Limits (E2EM)  
 Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)  
 Approximate Palustrine Emergent Wetland Limits (PEM)  
 2-Foot Contour



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Delineation

Approximate Palustrine Emergent Wetland Limits (PEM)



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
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5. Background: Orthoimagery © Bing Maps and © VGIN
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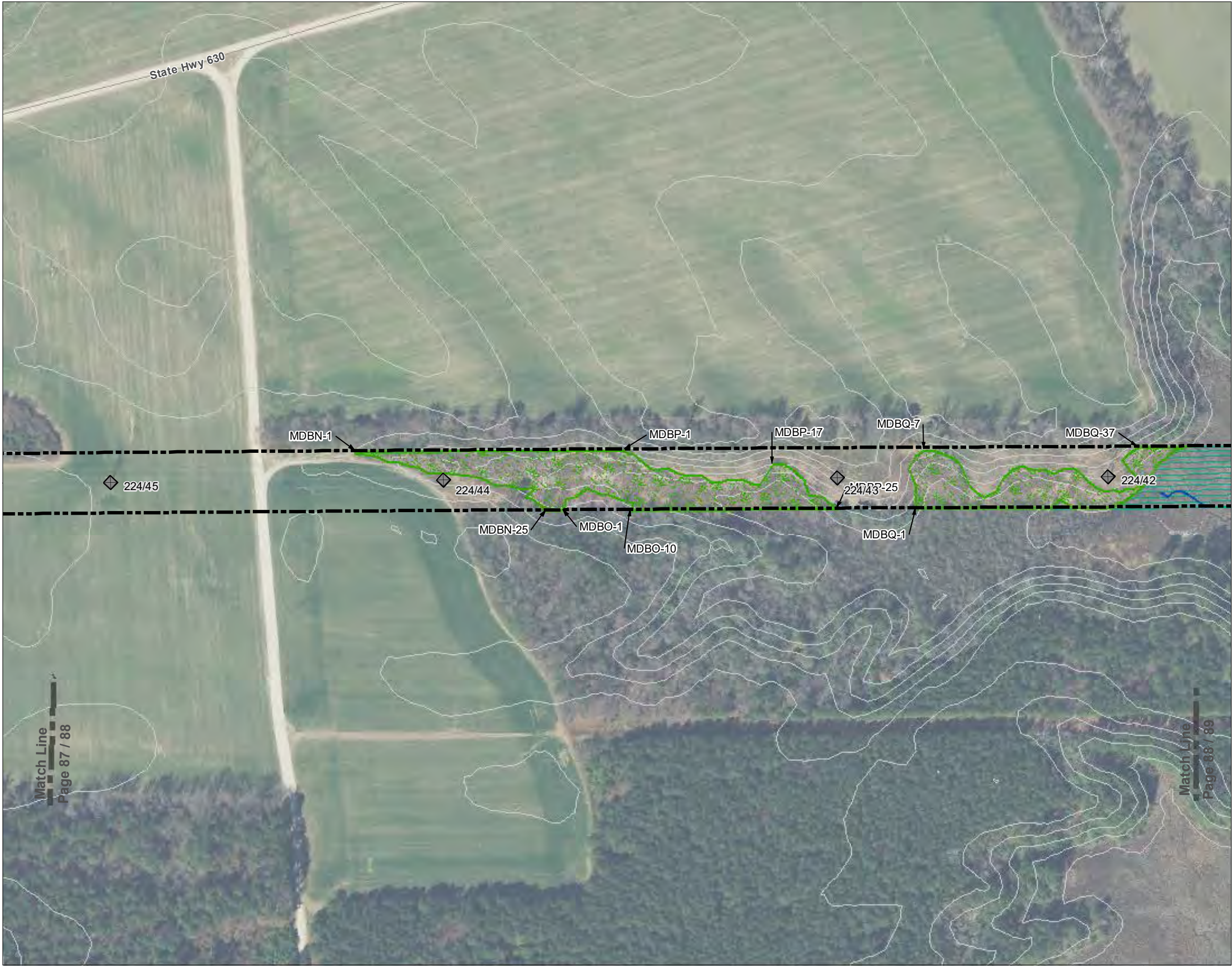


Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
 Approximate Estuarine Intertidal Emergent Wetland Limits (E2EM)  
 Approximate Palustrine Emergent Wetland Limits (PEM)  
 Approximate Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.  
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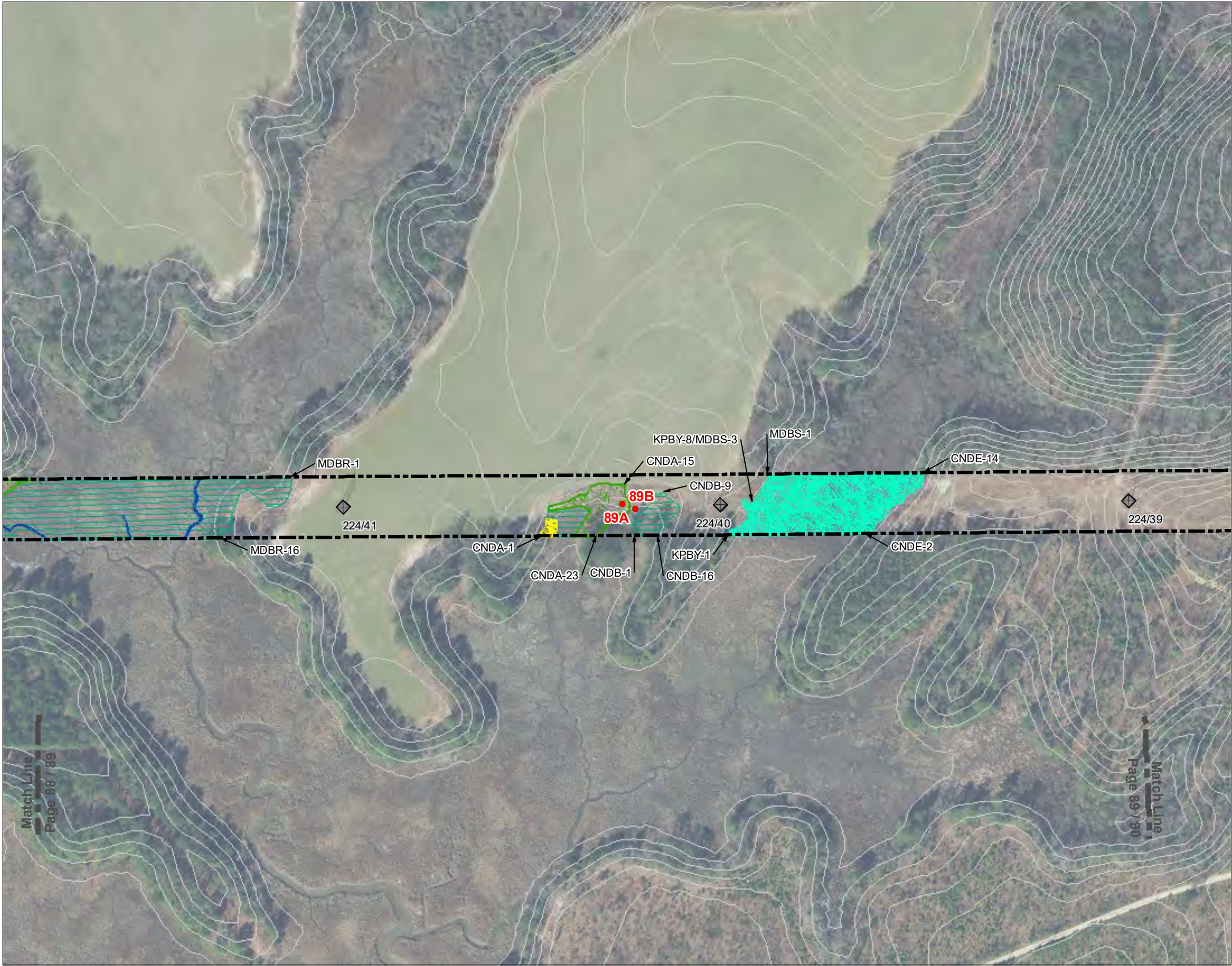
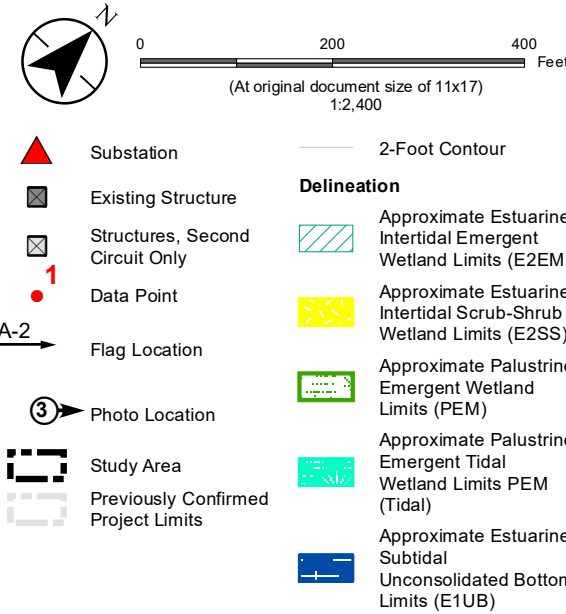


Figure No. **1**  
Title  
**Delineation Map**

**Client/Project**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

**Project Location**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**  
 Approximate Palustrine Emergent Wetland Limits (PEM)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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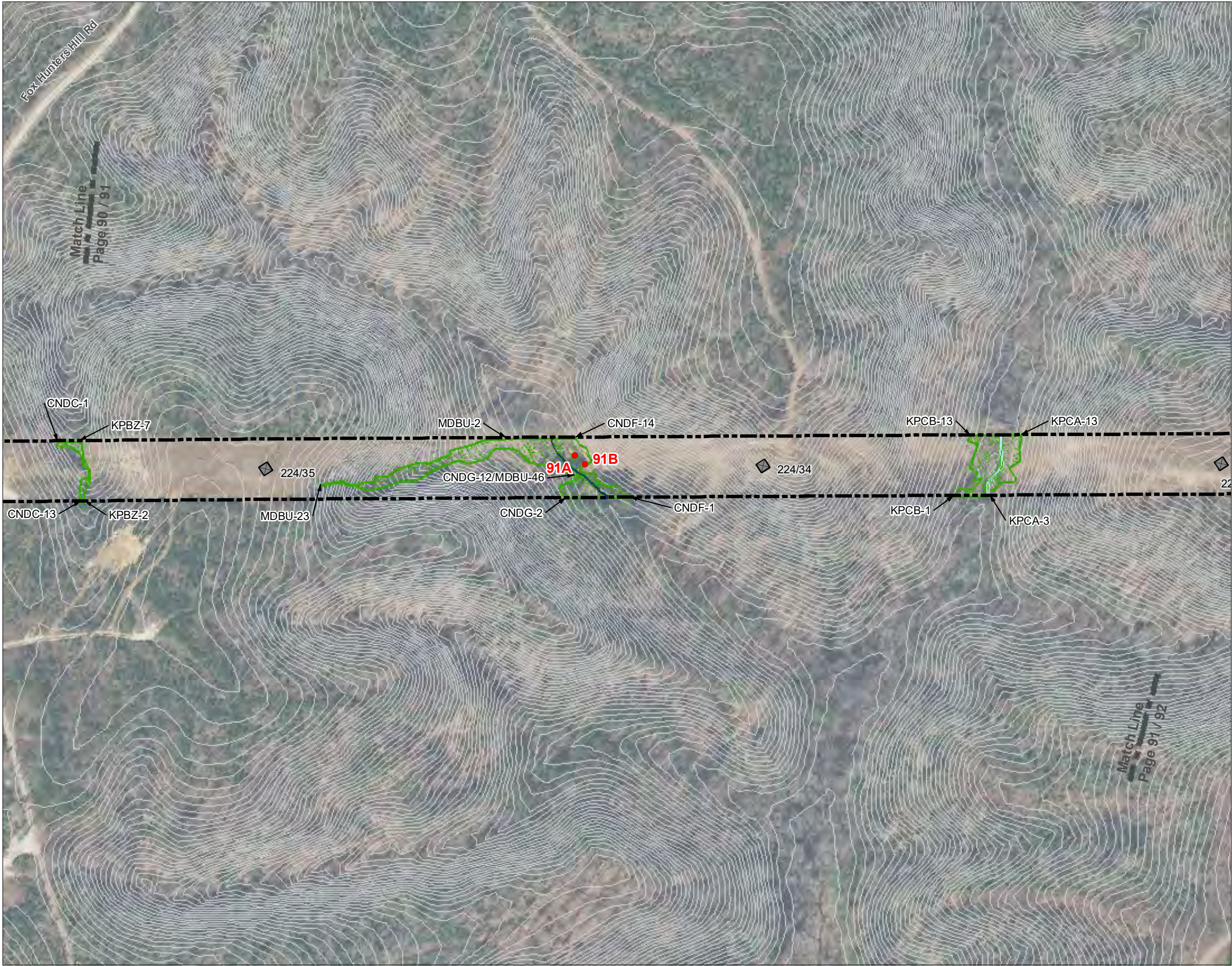


Figure No. 1  
Title Delineation Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Upper Perennial Stream Channel Limits (R3)

Approximate Intermittent Stream Channel Limits (R4)

Delineation



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation  
Existing Structure  
Structures, Second Circuit Only  
Data Point  
Flag Location

2-Foot Contour  
**Delineation**  
Approximate Palustrine Emergent Wetland Limits (PEM)  
Approximate Intermittent Stream Channel Limits (R4)

Photo Location  
Study Area  
Previously Confirmed Project Limits



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No. 1  
Title  
**Delineation Map**

**Client/Project** 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild

**Project Location** New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

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Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Estuarine Intertidal Emergent Wetland Limits (E2EM)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Estuarine Subtidal Unconsolidated Bottom Limits (E1UB)

**Delineation**



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS

3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.

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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

	Substation		2-Foot Contour
	Existing Structure	<b>Delineation</b>	
	Structures, Second Circuit Only		Approximate Palustrine Forested Wetland Limits (PFO)
	Data Point		Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)
	Flag Location		Approximate Palustrine Emergent Wetland Limits (PEM)
	Photo Location		Approximate Lower Perennial Stream Channel Limits (R2)
	Study Area		Approximate Upper Perennial Stream Channel Limits (R3)
	Previously Confirmed Project Limits		Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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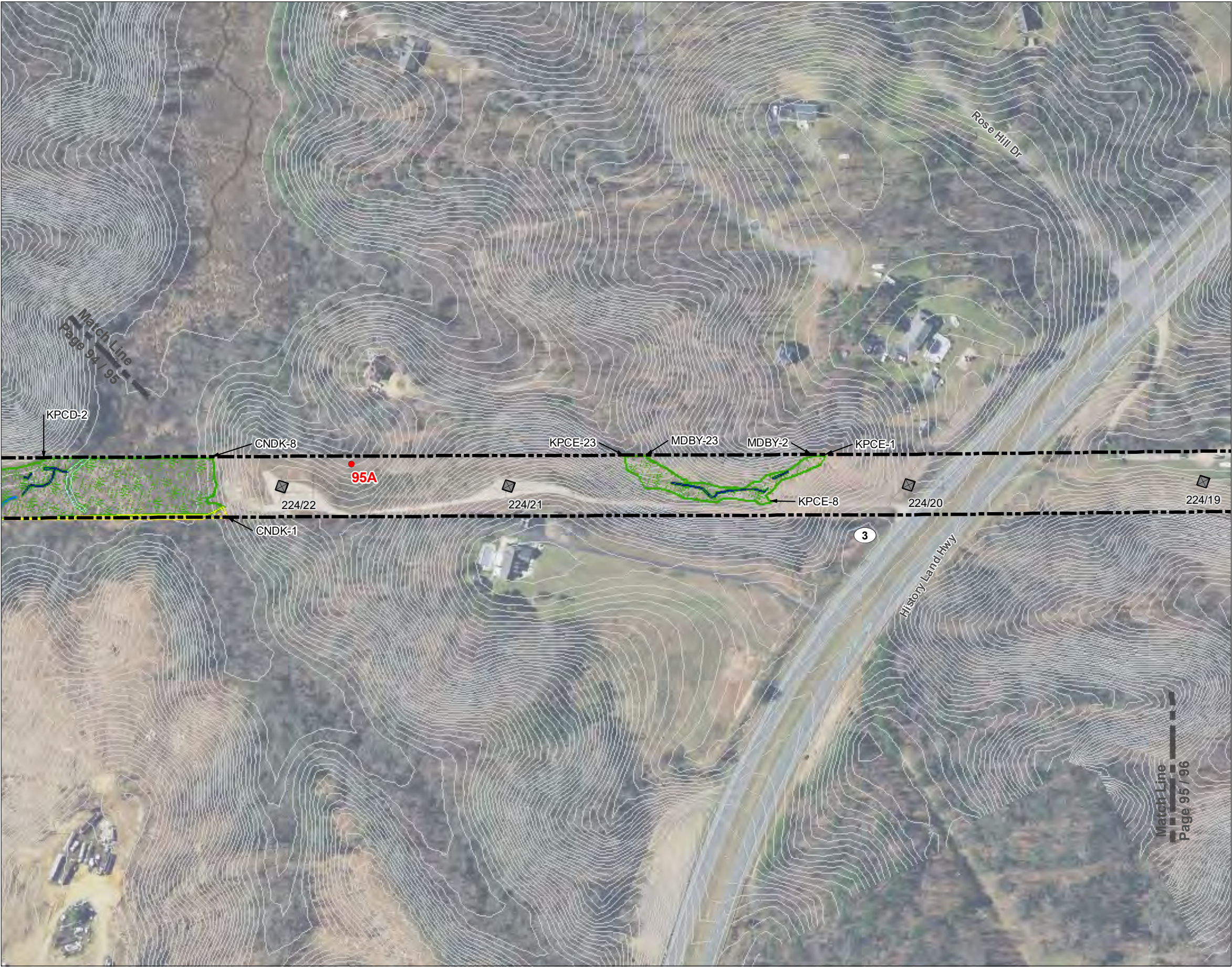
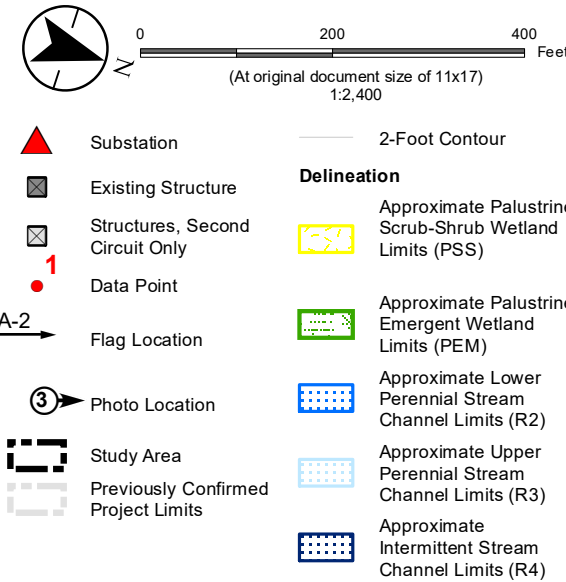


Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-05  
IR by CAN on 2020-08-13



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.
4. The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter capable GPS technology and are for planning purposes only.
5. Background: Orthomagey © Bing Maps and © VGIN
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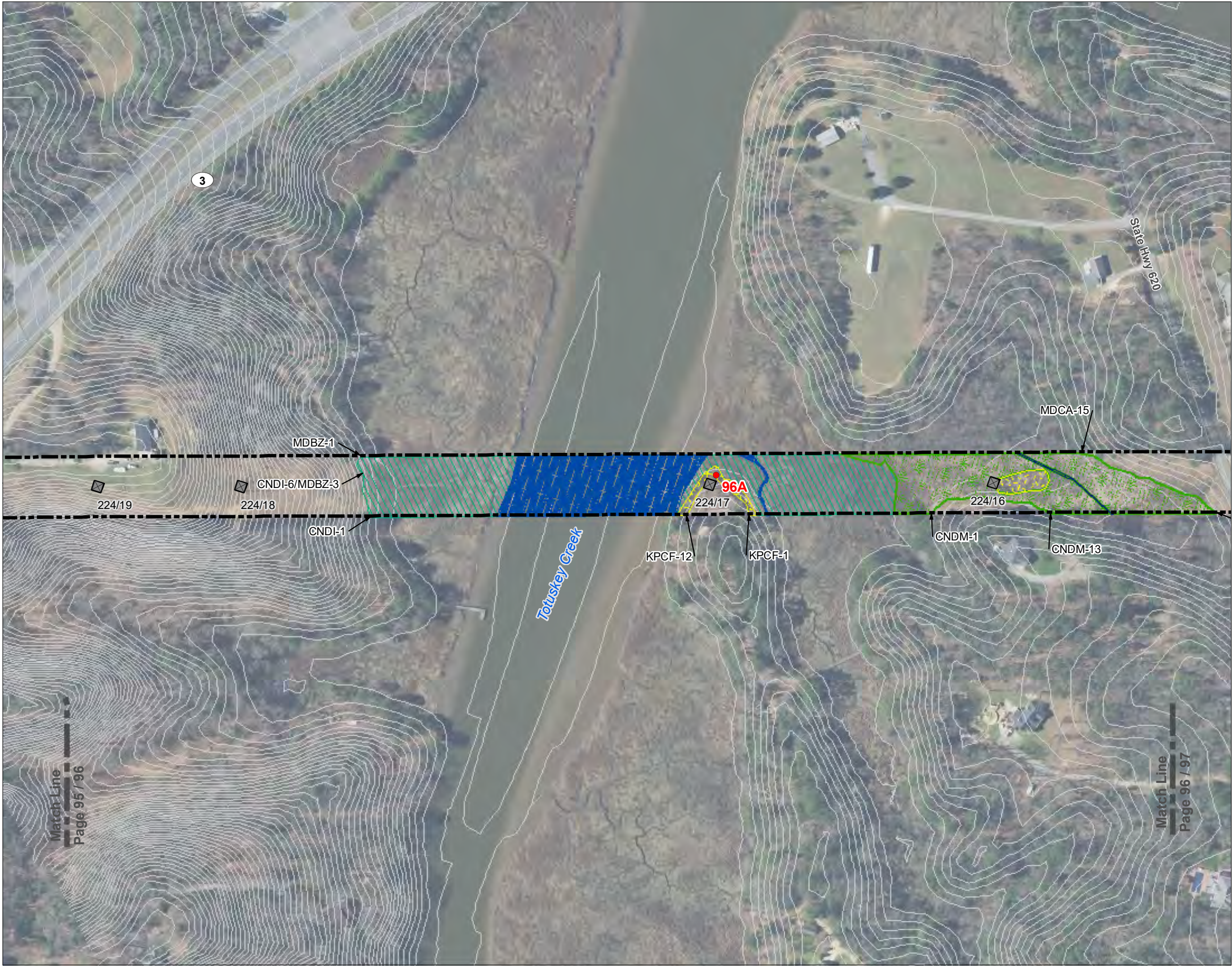
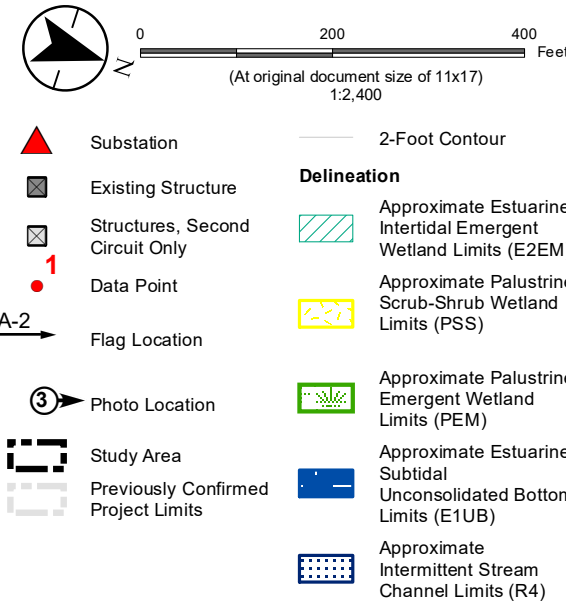


Figure No. 1  
Title  
**Delineation Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Forested Wetland Limits (PFO)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS  
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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

(At original document size of 11x17)  
1:2,400

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

**Delineation**

Approximate Palustrine Forested Wetland Limits (PFO)

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS

3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only.

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5. Background: Orthoimagery © Bing Maps and © VGIN

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Figure No.  
**1**  
Title  
**Delineation Map**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV Transmission Line  
Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by LJB on 2020-05-30  
TR by TPS on 2020-08-06  
IR by CAN on 2020-08-13

Substation

Existing Structure

Structures, Second Circuit Only

Data Point

Flag Location

Photo Location

Study Area

Previously Confirmed Project Limits

2-Foot Contour

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Intermittent Stream Channel Limits (R4)

Approximate Ephemeral Stream Channel Limits (R6)



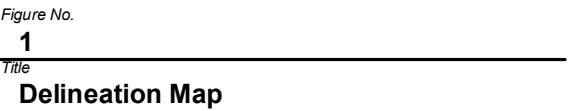
Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NADS
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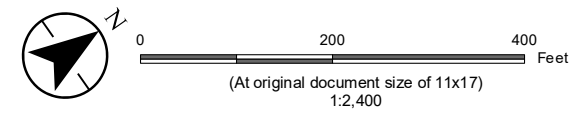


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<b>Client/Project</b>	203401404
<b>Domination Energy Virginia</b> <b>Lanexa-Northern Neck 230 kV Transmission Line</b> <b>Full Rebuild</b>	
<b>Project Location</b>	Prepared by LJB on 2020-05-30 New Kent, King William, King and Queen, TR by TFS on 2020-08-05 Essex, and Richmond Counties, Virginia IR by CAN on 2020-08-13



- Legend:**

  - Substation
  - Existing Structure
  - Structures, Second Circuit Only
  - Data Point
  - Flag Location
  - Photo Location
  - Study Area
  - Previously Confirmed Project Limits
  - 2-Foot Contour
  - Delineation**
    - Approximate Palustrine Emergent Wetland Limits (PEM)
    - Approximate Intermittent Stream Channel Limits (R4)



### Notes

1. Coordinate System: NAD 1983 StatePlane Virginia Zone 5 FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, USGS National Hydrography Dataset (NHD), ESRI, NASA
3. Topography generated from USGS 1/3 arc second digital elevation model raster dataset. Two-foot contours do not meet National Map Accuracy Standards and are for planning purposes only
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# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 1111 E. Main Street, Suite 1400, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Matthew J. Strickler  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4000  
1-800-592-5482

October 5, 2020

Rachel Studebaker  
Dominion Energy Services  
120 Tredegar Street,  
Richmond, VA 23219

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex and Richmond Counties, Virginia**

Dear Ms. Studebaker;

In accordance with the Department of Environmental Quality-State Corporation Commission *Memorandum of Agreement Regarding Wetland Impact Consultation* (July 2003), we have reviewed the information submitted by Dominion Energy Services (here after, Dominion) regarding potential wetland impacts on the above referenced project. Dominion is proposing to rebuild its 230 kV transmission line, Line #224, which is located between the existing Lanexa Substation in New Kent County and Northern Neck Substation in Richmond County (collectively, the "Project"). The Project will replace aging infrastructure that is nearing the end of its service life and address future reliability concerns, thereby continuing to enable the Company to maintain safe and reliable electric service to customers. Specifically, the Project proposes to:

- i. Rebuild within an existing right-of-way or on Company-owned property, approximately 38.3 miles of the existing 41.3-mile long 230 kV Lanexa-Northern Neck Line #224, on double circuit structures. The remaining approximately 3.0 miles of Line #224 currently is being rebuilt as a partial rebuild of Line #224 ("Partial Rebuild Project"), which was approved and certificated by the State Corporation Commission (the "Commission") in Case No. PUR-2018-00090. This includes the Pamunkey River crossing (1.7 miles) and the Mattaponi River crossing (1.3 miles) of Line #224;
- ii. Install 40.5 miles of a new 230 kV Lanexa-Northern Neck Transmission Line collocated on double circuit structures with Line #224. This includes the addition of a second circuit to 1.29 miles of previously replaced single-circuit structures across the Pamunkey River (Partial



Rebuild Project, Case No. PUR-2018-00090). The Mattaponi River crossing will already have both circuits installed as part of the Partial Rebuild Project;

- iii. Install a new, permanent substation in King and Queen County and perform additional work at the Lanexa, Dunnsville and Northern Neck Substations.

### **Summary of Findings**

Within a portion of the Project right-of-way, wetlands and other waters of the United States were delineated previously and received confirmation by the U.S. Army Corps of Engineers (the “Corps”) (Pamunkey River NAO-2018-00662, Mattaponi River NAO-2018-00656, Diascund and Beaverdam Creeks NAO-2018-00661, Diascund Creek Reservoir NAO-2018-00660). Within the rest of the right-of-way, the Company delineated wetlands and other waters of the United States, which will be submitted to the Corps in October 2020 for confirmation. All delineations were conducted using the *Routine Determination Method* as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). Total jurisdictional resources within the proposed Project right-of-way is provided in the table below.

Table 1. Jurisdictional Features Identified within the ROW

<b>Resource</b>	<b>Previously Confirmed Acreage (±)</b>	<b>Pending Confirmation Acreage (±)</b>	<b>Total Acreage (±)</b>
Estuarine Emergent Wetlands	11.40	8.48	19.88
Estuarine Scrub- Shrub Wetlands	-	0.03	0.03
Non-tidal Palustrine Emergent Wetland	10.30	75.65	85.95
Tidal Palustrine Emergent Wetland	-	1.38	1.38
Palustrine Scrub- Shrub Wetland	3.69	9.60	13.28
Palustrine Forested Wetland	0.02	0.03	0.05
Unconsolidated Bottom Subtidal Estuarine Wetlands	5.82 (8,851 linear feet)	20.61 (1,104 linear feet)	26.42 (9,955 linear feet)



Riverine Tidal Unconsolidated Bottom	2.86 (140 linear feet)	-	2.86 (140 linear feet)
Lower Perennial Stream	-	0.39 (1,989 linear feet)	0.39 (1,989 linear feet)
Upper Perennial Stream	0.05 (573 linear feet)	0.32 (3,523 linear feet)	3.22 (7,060 linear feet)
Intermittent Stream	-	0.48 (8,832 linear feet)	0.48 (8,832 linear feet)
Ephemeral Stream	-	0.01 (154 linear feet)	0.01 (154 linear feet)
Jurisdictional Ditch	-	0.05 (520 linear feet)	0.05 (520 linear feet)
Non-tidal Open Water	0.41	3.81	4.22

According to Dominion, impacts will occur from new foundations as the structures are being replaced due to end of life criteria. DEQ recommends structures should be sited to avoid wetlands to the extent practicable and should be sited outside of stream channels. DEQ further recommends wetland and stream avoidance and minimization efforts, where practical, during project construction by: (1) spanning wetlands and streams, (2) maintaining 100-foot buffers along either side of streams, (3) placing support structure foundations outside of wetlands and streambeds, and (4) using removable mats in wetland areas to reduce compaction and rutting.

The DEQ Piedmont Regional Office (PRO) will make the final permitting decisions.

### **Recommendations and Potential Permits**

DEQ offers the following recommendations:

1. Wetland and stream impacts should be avoided and minimized to the maximum extent practicable.
2. If the scope of the project changes, additional review will be necessary by one or more offices in the Commonwealth's Secretariat of Natural Resources and/or the Corps.
3. At a minimum, any required compensation for impacts to State Waters, including the compensation for permanent conversion of forested wetlands to emergent wetlands, should be in accordance with all applicable state regulations and laws. Consider mitigating impacts to forested or converted wetlands by establishing new forested wetlands within the impacted watershed.
4. Any temporary impacts to surface waters associated with this project should be restored to pre-existing conditions.
5. No activity may substantially disrupt the movement of aquatic life indigenous to the water body, including those species, which normally migrate through the area, unless the primary purpose of the activity is to impound water. Culverts placed in streams must be installed to maintain low flow conditions. No activity may cause more than minimal adverse effect on navigation. Furthermore the activity must not impede the passage of normal or expected high flows and the structure or discharge must withstand expected high flows.



6. Erosion and sedimentation controls should be designed in accordance with the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992. These controls should be placed prior to clearing and grading and maintained in good working order to minimize impacts to state waters. These controls should remain in place until the area is stabilized and should then be removed. Any exposed slopes and streambanks should be stabilized immediately upon completion of work in each permitted area. All denuded areas should be properly stabilized in accordance with the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992.
7. No machinery may enter surface waters, unless authorized by a Virginia Water Protection (VWP) individual permit, general permit, or general permit coverage.
8. Heavy equipment in temporarily impacted surface waters should be placed on mats, geotextile fabric, or other suitable material, to minimize soil disturbance to the maximum extent practicable. Equipment and materials should be removed immediately upon completion of work.
9. Activities should be conducted in accordance with any Time-of-Year restriction(s) as recommended by the Department of Game and Inland Fisheries, the Department of Conservation and Recreation, or the Virginia Marine Resources Commission. The permittee should retain a copy of the agency correspondence concerning the Time-of-Year restriction(s), or the lack thereof, for the duration of the construction phase of the project.
10. All construction, construction access, and demolition activities associated with this project should be accomplished in a manner that minimizes construction materials or waste materials from entering surface waters, unless authorized by a Virginia Water Protection (VWP) individual permit, general permit, or general permit coverage. Wet, excess, or waste concrete should be prohibited from entering surface waters.
11. Herbicides used in or around any surface water should be approved for aquatic use by the United States Environmental Protection Agency (EPA) or the U.S. Fish & Wildlife Service. These herbicides should be applied according to label directions by a licensed herbicide applicator. A non-petroleum based surfactant should be used in or around any surface waters.

Permits:

Based on DEQ's review of the additional information provided in an email dated September 22, 2020, the proposed project may require a Virginia Water Protection (VWP) individual permit or general permit coverage. The applicant may submit a Joint Permit Application (JPA) in accordance with form instructions for further evaluation and final permit need determination by DEQ.

Should you have any questions, please don't hesitate to contact me at 804-698-4007 or at [michelle.henichuck@deq.virginia.gov](mailto:michelle.henichuck@deq.virginia.gov).

Sincerely,

*Michelle Henichuck*

Michelle Henichuck, PWS  
Senior Wetland Ecologist  
Office of Wetlands & Stream Protection

Cc: Jaime Bauer Robb, DEQ - PRO  
Bettina Sullivan, DEQ - Office of Environmental Review





## Memo

---

To:	Rachel Studebaker	From:	Corey Gray
	Dominion Energy		Stantec Consulting Services, Inc.
	10900 Nuckols Rd		5209 Center Street
	Glen Allen, VA 23060		Williamsburg, VA 23188
File:	203401404	Date:	September 22, 2020

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**Reference: Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line #2208 Counties of New Kent, King William, King and Queen, Essex, and Richmond, Virginia: Solid & Hazardous Waste Search**

Stantec conducted database searches for solid and hazardous wastes and petroleum release sites within a 0.5-mile radius of the proposed Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line #2208 Project (Project). The Project begins at the Lanexa Substation in New Kent County, Virginia and extends for 41 miles through King William, King and Queen, Essex and Richmond Counties, Virginia, terminating at the Northern Neck Substation in Richmond County, Virginia. The sections of Line #224 that cross the Pamunkey and Mattaponi Rivers were authorized by the State Corporation Commission under PUR-2018-00090. Construction of the structures and replacement of Line #224 has already begun on these two sections; therefore, these two sections are not contained in this review. The Project will take place within the existing, cleared and maintained transmission line right-of-way (ROW) and no additional ROW appears to be required. The project consists of a wreck and rebuild of transmission line support structures, replacement of Line #224 conductors, and co-location of a new 230 kV transmission line (Line #2208) with Line #224.

Stantec obtained publicly available data from the Environmental Protection Agency (EPA) Facility Registry System (FRS), which provides information about facilities, sites, or places subject to environmental regulation or of environmental interest. Although this data set includes all sites subject to environmental regulation by the EPA or other state authority, such as sites that fall under air emissions or wastewater programs, the results reported here only include those sites which fall under the EPA's hazardous waste, solid waste, remediation, and underground storage tank programs. These sites include Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Superfund; Resource Conservation and Recovery Act (RCRA); and brownfield sites. Per this database, there are no registered RCRA sites present within a 0.5-mile radius of the project.

The Virginia Department of Environmental Quality (DEQ) records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites, and petroleum releases within 0.5 mile of the proposed project. One solid waste permit site (Permit Number 900000000548, Table 1) was located approximately 478 linear feet from the project area. This site falls outside of the right-of-way. A total of nineteen petroleum release sites were identified within the search radius with the closest site (PC Number 19911890) located approximately 492 linear feet from the project area. This site is oil containment at the Northern Neck Substation; however, the site falls outside the right-of-way and the case was closed January 2005. Additionally, none of the identified petroleum release sites identified within 0.5 mile of the proposed project intersect with the project right-of-way and all cases have been closed (Table 2). Dominion Energy has a procedure in place to handle petroleum contaminated soil, if encountered; however, as all the release sites are located outside of the project area, none of the petroleum release sites are expected to have an impact on the proposed project.

In summary, a total of nineteen petroleum release sites, and one solid waste permit site are located within a 0.5-mile radius of the project site; however, none of the sites are located within the project ROW. No EPA



September 22, 2020

Rachel Studebaker

Page 2 of 5

Reference: Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line #2208 Counties of New Kent, King William, King and Queen, Essex, and Richmond, Virginia: Solid & Hazardous Waste Search

registered RCRA sites, brownfield sites, or CERCLA/Superfund sites are located within 0.5 mile of the Project.





## Memo

**Table 1.** Solid waste sites identified by the Virginia DEQ as occurring within 0.5-mile of the Project.

Site Name	Permit Number	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
BFI Indian Fields Materials Recovery Facility	900000000548	Solid Waste Permit	Richmond County	37.906772	-76.722684	Clean Closed	478

**Table 2.** Petroleum releases identified by the DEQ as occurring within 0.5 mile of the Project.

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Garnett Francais Residence	20034204	King and Queen County	37.72433262	-76.84838031	Closed	Confirmed	N	764
Baughan Residence	20014952	Essex County	37.85225167	-76.8093072	Closed	Confirmed	N	922
Northern Neck Oil Co	20014122	Richmond County	37.92136882	-76.71897682	Closed	Confirmed	N	1166
King and Queen Health Dept	20014432	King and Queen County	37.66963607	-76.87796033	Closed	Confirmed	N	1292
King and Queen Courthouse	20014433	King and Queen County	37.67008485	-76.87784959	Closed	Confirmed	N	1311
King and Queen Volunteer Fire Dept	20004068	King and Queen County	37.67057778	-76.87527944	Closed	Confirmed	N	656
Ware Property	20014305	Essex County	37.87308771	-76.78724299	Closed	Confirmed	N	1606
VDOT Camp 17	19891233	Richmond County	37.9221018	-76.71915256	Closed	Confirmed	N	1136



September 22, 2020  
Rachel Studebaker  
Page 4 of 5

Reference: Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line #2208 Counties of New Kent, King William, King and Queen, Essex, and Richmond, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Northern Neck C T	19911890	Richmond County	37.94807445	-76.71007258	Closed	Confirmed	N	492
Rainbow Acres Campground	20044173	King and Queen County	37.7244061	-76.84876655	Closed	Confirmed	N	649
Parkway Grocery	19921818	New Kent County	37.42297437	-76.90474436	Closed	Confirmed	N	1682
Taliaferro Spotswood Residence	20084395	Essex County	37.87093761	-76.78543585	Closed	Confirmed	N	665
Robinson Ora Residence	20064401	King and Queen County	37.67321431	-76.87993674	Closed	Confirmed	N	2233
King and Queen Board of Supervisors	19994274	King and Queen County	37.66940316	-76.87796254	Closed	Confirmed	N	1267
Bryant Carol Residence	20104189	Richmond County	37.94813987	-76.71773097	Closed	Confirmed	N	1598
McMullen Mary W Residence	20134216	Essex County	37.866716	-76.786129	Closed	Confirmed	N	644
White Francis Residence	20164508	King William County	37.592054	-76.89597	Closed	Confirmed	N	1024
Northern Neck Oil Company	20154585	Richmond County	37.921743	-76.718663	Closed	Confirmed	N	1040
Northern Neck Oil Company	20154548	Richmond County	37.921816	-76.718782	Closed	Confirmed	N	1065





## Memo

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If you have any questions regarding the details presented in this report, please feel free to contact me at your convenience.

**Stantec Consulting Services Inc.**

**Corey Gray**

Senior Environmental Scientist

Phone: 757 220 6869

Corey.Gray@stantec.com





## Memo

To: Rachel Studebaker

From: Corey Gray

Dominion Energy Virginia  
10900 Nuckols Rd, 4th Floor  
Glen Allen, VA 23060

Stantec Consulting Services, Inc.  
5209 Center Street  
Williamsburg, VA 23188

File: 203401404

Date: September 22, 2020

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**Reference: Lanexa to Northern Neck Transmission Line #224 Rebuild and New 230 kV Line #2208, New Kent, King William, King & Queen, Essex, and Richmond Counties, Virginia: Threatened and Endangered Species Review**

Online database searches for federal and state threatened and endangered species were completed by Stantec in February 2020 for the Lanexa to Northern Neck Transmission Line #224 Rebuild and New 230 kV Line #2208 (Project). The Project begins at the Lanexa Substation in New Kent County, Virginia and extends for 41 miles through King William, King and Queen, Essex and Richmond Counties, Virginia, terminating at the Northern Neck Substation in Richmond County, Virginia. The sections of Line #224 that cross the Pamunkey and Mattaponi Rivers were authorized by the State Corporation Commission under PUR-2018-00090. Construction of the structures and replacement of Line #224 has already begun on these two sections; therefore, these two sections are not contained in this review. The Project will take place within the existing, cleared and maintained transmission line right-of-way (ROW) and no additional ROW appears to be required. The Project consists of a wreck and rebuild of transmission line support structures, replacement of Line #224 conductors, and co-location of a new 230 kV transmission line (Line #2208) with Line #224. The online database searches included the following:

- U.S. Fish & Wildlife (USFWS) Information, Planning, and Conservation (IPaC)
- USFWS Bald Eagle Concentration Area Map
- Department of Wildlife Resources (DWR)<sup>1</sup> Virginia Fish and Wildlife Information Service (VAFWIS)
- DWR Northern Long-eared Bat (NLEB) Winter Habitat and Roost Trees Map
- Virginia Department of Conservation and Recreation (DCR) Natural Heritage Data Explorer (NHDE)
- Center for Conservation Biology (CCB) Bald Eagle Nest Locator for Virginia
- CCB Colonial Waterbird Database
- DWR Little Brown Bat and Tri-colored Bat Winter Habitat and Roosts Application
- National Marine Fisheries Service (NMFS) Critical Habitat Map

### Results

Species with confirmed or potential presence within the Project vicinity have been identified by database searches and are provided below in Table 1.

---

<sup>1</sup> Stantec completed the database searches in February 2020. The former Department of Game and Inland Fisheries (DGIF) was renamed the Department of Wildlife Resources (DWR) on July 1, 2020.



September 22, 2020  
Rachel Studebaker  
Page 2 of 5

Reference: Line 224 Lanexa to Northern Neck 230 kV Rebuild, New Kent, King William, King & Queen, Essex, and Richmond Counties, Virginia: Threatened and Endangered Species Review

**Table 1.** Database Search Results

Species	Status	Database	Results	County Occurrence
Northern long-eared bat ( <i>Myotis septentrionalis</i> )	FT, ST	USFWS-IPaC, DWR-NLEB Winter Habitat and Roost Tree Map	Identified as potentially occurring near the Project. No known hibernacula or maternity roost trees within the vicinity of the Project.	New Kent King William King & Queen Essex Richmond
Sensitive joint-vetch ( <i>Aeschynomene virginica</i> )	FT, ST	USFWS-IPaC, DCR-NHR	Identified as potentially occurring near the Project. This species inhabits the upper limits of tidal wetlands.	New Kent King William King and Queen Essex Richmond
Atlantic sturgeon ( <i>Acipenser oxyrinchus</i> )	FE, SE	DWR- VAFWIS; DCR-NHR	Historically documented near the Project. As per the NMFS <i>Critical Habitat Map</i> , the Pamunkey, Mattaponi, and Rappahannock Rivers have been designated as critical habitat for the Atlantic sturgeon.	New Kent King William King and Queen Essex Richmond
Small whorled pogonia ( <i>Isotria medeoloides</i> )	FT, SE	USFWS-IPaC	Potentially occurring near the Project. This small orchid grows in older hardwoods stands of beech and hickory.	New Kent King William King and Queen Essex Richmond
Eastern black rail ( <i>Laterallus jamaicensis</i> )	SE	VAFWIS-DWR	DWR has predicted black rail habitat within Richmond County adjacent to the Rappahannock River Crossing. This small bird inhabits primarily saltwater marshes but can also be found in freshwater marshes.	Essex Richmond
Henslow's sparrow ( <i>Ammodramus henslowii</i> )	ST	VAFWIS-DWR	This small songbird is typically found in meadows and open fields with tall and dense uncut grasses.	New Kent King William Essex Richmond
Mabee's salamander ( <i>Ambystoma mabeei</i> )	ST	VAFWIS-DWR	DWR has predicted habitat within James City County within 2 miles of the Project. This species inhabits	New Kent



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Rachel Studebaker  
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Reference: Line 224 Lanexa to Northern Neck 230 kV Rebuild, New Kent, King William, King & Queen, Essex, and Richmond Counties, Virginia: Threatened and Endangered Species Review

			wetlands and low ephemeral areas.	
Narrow-leaved spatterdock ( <i>Nuphar sagittifolia</i> )	ST	DCR-NHR	Identified as potentially occurring near the Project. This species inhabits freshwater tidal rivers.	New Kent
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	BGEPA	CCB, USFWS- Bald Eagle Concentration Area Map	No bald eagle concentration areas are located within the Project area. Bald eagle nest NK0801 in New Kent County is located 273 ft from the Project area but has not been occupied since 2011. Bald eagle nest RI8902 in Richmond County is located 470 ft from the Project area but has not been occupied since 2015.	New Kent Richmond

FT: federally threatened, FE: federally endangered, ST: state threatened, SE: state endangered, BGEPA: Bald and Golden Eagle Protection Act

## Conclusion

The following conclusions are based upon the proposed scope of work, as described by Dominion Energy. This scope of work assumes construction access will avoid stream crossings where practical or use crane mats to span stream crossings with no in-stream work required. All work will take place within existing cleared and maintained transmission line ROW. Erosion and sediment controls will be used as appropriate throughout the Project to protect wetlands and water resources.

The USFWS-IPaC database identified the northern long-eared bat as potentially occurring within or near the Project area; however, the DWR-NLEB *Winter Habitat and Roost Tree Map* shows no known hibernacula or maternity roost trees are within the Project vicinity. The northern long-eared bat is typically found in intact forest habitats with mixed hardwoods and often nests in and breeds in tree hollows and in woody debris (Source: NatureServe). The proposed Project will take place within existing, cleared, and maintained transmission line ROW, although limited removal of danger trees and forestry work for construction access may be necessary during the Project. Stantec recommends that no tree removal occur during the time-of-year restriction for tree clearing (June 1 – July 31) in adherence with the 4(d) Rule to avoid potential adverse effects to the northern long-eared bat.

The small-whorled pogonia was identified by USFWS-IPaC as potentially occurring within or near the Project area. The species prefers mixed-deciduous or mixed deciduous/coniferous forest habitat under canopies that are relatively open. The small whorled pogonia is rare with populations typically containing less than 20 plants. All work will take place within the cleared and maintained ROW; therefore, species habitat is not present. As such, the Project is not likely to adversely affect the small whorled pogonia.

Design with community in mind



September 22, 2020  
Rachel Studebaker  
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Reference: Line 224 Lanexa to Northern Neck 230 kV Rebuild, New Kent, King William, King & Queen, Essex, and Richmond Counties, Virginia: Threatened and Endangered Species Review

The federally and state endangered sensitive joint-vetch was also identified by USFWS-IPaC and DCR-NHR as potentially occurring within or near the Project area. The sensitive joint-vetch is found in fresh to slightly brackish tidal wetlands and often grows partially submerged near river mouths (Source: NatureServe). Stantec recommends that freshwater tidal wetlands that may be impacted by construction be surveyed for the sensitive joint-vetch as part of the U.S. Army Corps of Engineers permitting process. Surveys must be conducted between mid-August and mid-October.

VAFWIS-DWR records indicate that the federally and state endangered Atlantic sturgeon has been documented near the Project area. The Atlantic sturgeon is typically found in near shore environments in bay/sound areas and migrates to rivers to spawn (Source: NatureServe). As per the NMFS *Critical Habitat Map*, the Pamunkey, Mattaponi, and Rappahannock Rivers have been designated as critical habitat for the Atlantic sturgeon. The transmission structures at the Rappahannock River crossing will be rebuilt on the existing foundations and therefore no in-water work related to pile driving will occur. Furthermore, the structures for the Pamunkey and Mattaponi River crossings were authorized previously and are not part of this Project. Therefore, the Project is not likely to adversely affect the Atlantic sturgeon or critical habitat.

VAFWIS-DWR also identified predicted habitat for the state endangered eastern black rail and state threatened Henslow's sparrow within the Project area along the Rappahannock River in Richmond County. The eastern black rail inhabits primarily saltwater marshes but can also be found in freshwater marshes. The Henslow's sparrow prefers habitats of unmowed grassy or weedy hayfields. Construction of the Project will not result in a change of the existing habitat within the right-of-way. Additionally, DWR recommends a time-of-year restriction on construction between April 1 and August 31 for both species. Stantec recommends installing construction access within the predicted habitat outside of the time-of-year restriction. If that is not possible, Dominion Energy should coordinate with DWR early to determine whether avoidance and minimization measures would be necessary.

The DWR search also indicated the potential presence of the state threatened Mabee's salamander (*Ambystoma mabeei*) at the southern end of the Project. The Mabee's salamander is found in wetland and ephemeral habitats in both wooded and open areas. DWR predicted Mabee's salamander habitat within James City County which is within two miles of the Project area. No predicted habitat appears to be identified in New Kent County.

The DCR-NHR database indicated the narrow-leaf spatterdock may potentially occur near the Project area. This species prefers freshwater, intertidal guts of the upper Pamunkey and Mattaponi Rivers. The rebuild of transmission structures at the Pamunkey and Mattaponi Rivers is part of the Line 224 Partial Rebuild Projects and not part of this Project. Therefore, the Project is not likely to adversely affect the narrow-leaf spatterdock.

The USFWS *Virginia Bald Eagle Concentration Area Map* confirms that the proposed Project area does not intersect with bald eagle concentration areas. No bald eagle concentration areas are located within the Project area. Bald eagle nest NK0801 is located approximately 273 ft to the east of the Project area and bald eagle nest RI8902 is located approximately 470 ft to the northwest of the Project area. However, NK0801 has not been occupied by eagles since 2011 while RI8902 has not been recorded as occupied since 2015. Any work within 660 ft of an active eagle nest between December 15<sup>th</sup> – July 15<sup>th</sup> of any year may require an incidental take permit from USFWS. Stantec recommends that Dominion Energy evaluate the status of these nests during the breeding season prior to construction.

In addition to the species identified above, the CCB mapping tools identified two known great blue heron (*Ardea herodias*) waterbird colonies within 0.5 mile of the Project area. Colony CW-KQ-05 is approximately 0.37 miles from the Project area and colony CW-NK-07, within Diascund Creek Reservoir, is approximately

Design with community in mind



September 22, 2020  
Rachel Studebaker  
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Reference: Line 224 Lanexa to Northern Neck 230 kV Rebuild, New Kent, King William, King & Queen, Essex, and Richmond Counties, Virginia: Threatened and Endangered Species Review

0.26 mile from the Project area. DWR recommends that construction activities located within 0.5 mile of any waterbird colony adhere to a time-of-year-restriction (TOYR) between February 15 through July 31 of any year. If adherence to the TOYR is not possible, Stantec recommends coordination with DWR.

Based on the scope of the proposed work, adverse effects to threatened and endangered species are not anticipated. The complete results from the database searches are provided for your reference (See Attachments) for use in agency coordination.

If you have any questions, please contact me at your earliest convenience.

Regards,

**Stantec Consulting Services, Inc.**



Corey Gray  
Sr. Environmental Scientist  
Phone: 757-220-6869  
corey.gray@stantec.com

Attachments:

- USFWS-IPaC Database Search Results
- USFWS Bald Eagle Concentration Area Map Database Search Results
- VAFWIS-DWR Database Search Results
- DWR-NLEB Winter Habitat and Roost Tree Map Database Search Results
- DCR Natural Heritage Data Explorer Database Search Results
- CCB Bald Eagle Nest Locator for Virginia Database Search Results
- CCB Colonial Nesting Bird Database
- DWR Little Brown Bat and Tri-colored Bat Winter Habitat and Roosts Application





## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Virginia Ecological Services Field Office  
6669 Short Lane  
Gloucester, VA 23061-4410  
Phone: (804) 693-6694 Fax: (804) 693-9032  
<http://www.fws.gov/northeast/virginiafield/>



In Reply Refer To:  
Consultation Code: 05E2VA00-2020-SLI-0765  
Event Code: 05E2VA00-2020-E-02059  
Project Name: Line 224 Rebuild Lanexa to Northern Neck

November 20, 2019

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

### To Whom It May Concern:

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

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

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



species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
-



## Official Species List

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

This species list is provided by:

**Virginia Ecological Services Field Office**

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

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## Project Summary

Consultation Code: 05E2VA00-2020-SLI-0765

Event Code: 05E2VA00-2020-E-02059

Project Name: Line 224 Rebuild Lanexa to Northern Neck

Project Type: TRANSMISSION LINE

Project Description: The project consists of a wreck and rebuild along 41 miles of 230 kV transmission line, Lanexa - Northern Neck. Construction scheduled to begin late 2020.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.68422640511277N76.86743424533978W>



Counties: Essex, VA | King William, VA | King and Queen, VA | New Kent, VA | Richmond, VA



## Endangered Species Act Species

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

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

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

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

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

## Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Flowering Plants

NAME	STATUS
Sensitive Joint-vetch <i>Aeschynomene virginica</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/855">https://ecos.fws.gov/ecp/species/855</a>	Threatened
Small Whorled Pogonia <i>Isotria medeoloides</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1890">https://ecos.fws.gov/ecp/species/1890</a>	Threatened

## Critical habitats

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

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## USFWS National Wildlife Refuge Lands And Fish Hatcheries

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

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

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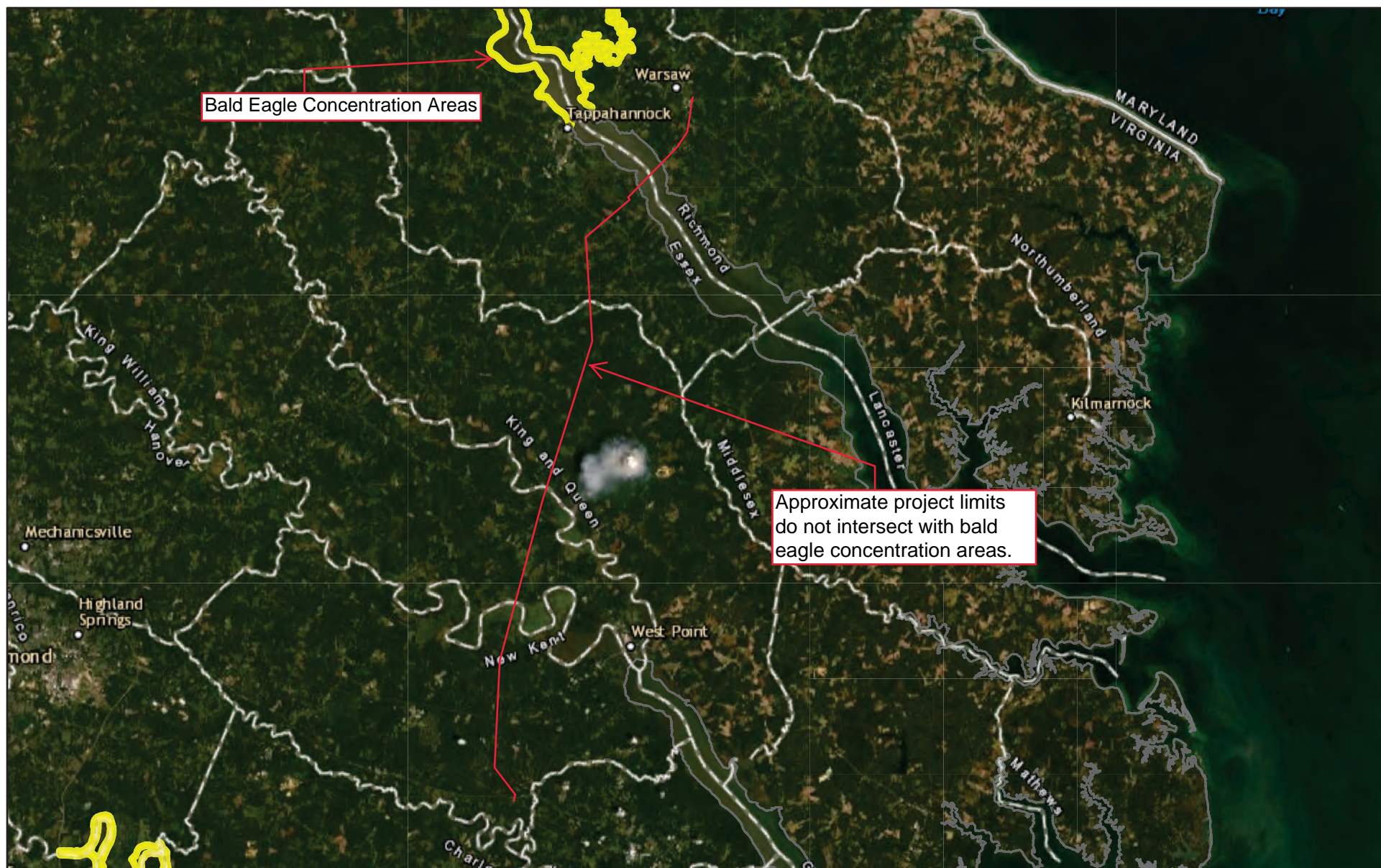


# **USFWS BALD EAGLE CONCENTRATION AREAS**

## **Database Searches**

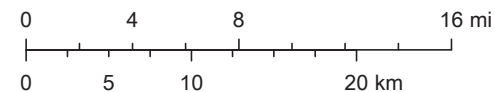


## VA Bald Eagle Concentration Areas



January 27, 2020

1:577,791



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user



# **DCR NHDE**

## **Database Searches**



## Natural Heritage Resources

### Your Criteria

Taxonomic Group: Select All

Federal Legal Status: LE - Listed endangered,LT - Listed threatened

State Legal Status: LE - Listed endangered,LT - Listed threatened

Watershed (8 digit HUC): 02080106 - Pamunkey River,02080206 - Lower James River

Subwatershed (12 digit HUC): YO37 - Pamunkey River-Mill Creek,JL26 - Diascund Creek-Diascund Creek Reservoir,JL27 - Diascund Creek-Mill Creek

Search Run: 11/20/2019 14:44:58 PM

### Result Summary

Total Species returned: 2

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

---



Common Name/Natural Community	Scientific Name	Scientific Name Linked	<a href="#">Global Conservation Status Rank</a>	<a href="#">State Conservation Status Rank</a>	<a href="#">Federal Legal Status</a>	<a href="#">State Legal Status</a>	Statewide Occurrences	Virginia Coastal Zone
<b>Lower James</b>								
Diascund Creek-Mill Creek								
VASCULAR PLANTS								
Narrow- leaved Spatterdock	Nuphar sagittifolia	<a href="#">Nuphar sagittifolia</a>	G5T2	S1	SOC	LT	2	Y
<b>Pamunkey</b>								
Pamunkey River-Mill Creek								
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynomene virginica	<a href="#">Aeschynomene virginica</a>	G2	S2	LT	LT	22	Y

**Note:** On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.

**For Additional Information** on locations of Natural Heritage Resources please submit an [information request](#).

**To Contribute information** on locations of natural heritage resources, please fill out and submit a [rare species sighting form](#).



## King William Project Segment

### Natural Heritage Resources

#### Your Criteria

Taxonomic Group: Select All

Federal Legal Status: LE - Listed endangered,LT - Listed threatened

State Legal Status: LE - Listed endangered,LT - Listed threatened

Watershed (8 digit HUC): 02080105 - Mattaponi River,02080106 - Pamunkey River

Subwatershed (12 digit HUC): YO60 - Mattaponi River-Heartquake Creek,YO37 - Pamunkey River-Mill Creek

Search Run: 11/20/2019 14:58:44 PM

#### Result Summary

Total Species returned: 2

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

Common Name/Natural Community	Scientific Name	Scientific Name Linked	<a href="#">Global Conservation Status Rank</a>	<a href="#">State Conservation Status Rank</a>	<a href="#">Federal Legal Status</a>	<a href="#">State Legal Status</a>	Statewide Occurrences	Virginia Coastal Zone
-------------------------------------	--------------------	---------------------------	---	--	--	--	--------------------------	--------------------------

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Common Name/Natural Community	Scientific Name	Scientific Name Linked	<a href="#">Global Conservation Status Rank</a>	<a href="#">State Conservation Status Rank</a>	<a href="#">Federal Legal Status</a>	<a href="#">State Legal Status</a>	Statewide Occurrences	Virginia Coastal Zone
-------------------------------------	--------------------	---------------------------	---	--	--	--	--------------------------	--------------------------

### **Mattaponi**

Mattaponi River-Heartquake Creek

#### **VASCULAR PLANTS**

Sensitive Joint-vetch	Aeschynome ne virginica	<a href="#">Aeschynome ne virginica</a>	G2	S2	LT	LT	22	Y
--------------------------	----------------------------	---	----	----	----	----	----	---

### **Pamunkey**

Pamunkey River-Mill Creek

#### **VASCULAR PLANTS**

Sensitive Joint-vetch	Aeschynome ne virginica	<a href="#">Aeschynome ne virginica</a>	G2	S2	LT	LT	22	Y
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**Note:** On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.

**For Additional Information** on locations of Natural Heritage Resources please submit an [information request](#).

**To Contribute information** on locations of natural heritage resources, please fill out and submit a [rare species sighting form](#).



Natural Heritage Resources

Your Criteria

Taxonomic Group: Select All

Federal Legal Status: LE - Listed endangered,LT - Listed threatened

State Legal Status: LE - Listed endangered,LT - Listed threatened

Watershed (8 digit HUC): 02080102 - Great Wicomico-Piankatank,02080105 - Mattaponi River

Subwatershed (12 digit HUC): CB06 - Dragon Swamp-Dragon Run,CB07 - Exol Swamp,YO59 - Mattaponi River-Courthouse Creek,YO60 - Mattaponi River-Heartquake Creek

Search Run: 11/20/2019 15:16:39 PM

Result Summary

Total Species returned: 2

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

---



Common Name/Natural Community	Scientific Name	Scientific Name Linked	<a href="#">Global Conservation Status Rank</a>	<a href="#">State Conservation Status Rank</a>	<a href="#">Federal Legal Status</a>	<a href="#">State Legal Status</a>	Statewide Occurrences	Virginia Coastal Zone
<b>Mattaponi</b>								
Mattaponi River-Courthouse Creek								
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynome ne virginica	<a href="#">Aeschynome ne virginica</a>	G2	S2	LT	LT	22	Y
Mattaponi River-Heartquake Creek								
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynome ne virginica	<a href="#">Aeschynome ne virginica</a>	G2	S2	LT	LT	22	Y

**Note:** On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.

**For Additional Information** on locations of Natural Heritage Resources please submit an [information request](#).

**To Contribute information** on locations of natural heritage resources, please fill out and submit a [rare species sighting form](#).



## Essex County Project Segment

### Natural Heritage Resources

#### Your Criteria

Taxonomic Group: Select All

Federal Legal Status: LE - Listed endangered,LT - Listed threatened

State Legal Status: LE - Listed endangered,LT - Listed threatened

Watershed (8 digit HUC): 02080102 - Great Wicomico-Piankatank,02080104 - Lower Rappahannock River

Subwatershed (12 digit HUC): CB06 - Dragon Swamp-Dragon Run,RA61 - Piscataway Creek,RA62 - Rappahannock River-Little Carter Creek,RA66 - Rappahannock River-Cedar Creek

Search Run: 11/20/2019 15:20:51 PM

#### Result Summary

Total Species returned: 1

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

---



Common Name/Natural Community	Scientific Name	Scientific Name Linked	<a href="#">Global Conservation Status Rank</a>	<a href="#">State Conservation Status Rank</a>	<a href="#">Federal Legal Status</a>	<a href="#">State Legal Status</a>	Statewide Occurrences	Virginia Coastal Zone
<b>Lower Rappahannock</b>								
Piscataway Creek								
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynome ne virginica	<a href="#">Aeschynome ne virginica</a>	G2	S2	LT	LT	22	Y


**Note:** On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.

**For Additional Information** on locations of Natural Heritage Resources please submit an [information request](#).

**To Contribute information** on locations of natural heritage resources, please fill out and submit a [rare species sighting form](#).



# Richmond County Project Segment

 Virginia Department of Conservation and Recreation

Home | Map | My Subscription | Species/Communities Search | Terms & Conditions | About Us | Contact Us | Help

**Global Conservation Status Rank:**  
Select All  
G1 - Critically Imperiled  
G2 - Imperiled  
G3 - Vulnerable

**State Conservation Status Rank:**  
Select All  
S1 - Critically Imperiled  
S2 - Imperiled  
S3 - Vulnerable

**Federal Legal Status:**  
Select All  
LE - Listed Endangered  
L - Listed Threatened  
PE - Proposed endangered

**State Legal Status:**  
Select All  
LE - Listed Endangered  
L - Listed Threatened  
PE - Proposed endangered

**Select Operand:**  
☐ AND ☒ OR

**County:**  
Select All  
Accomack  
Albemarle  
Alleghany

**Physiographic Province:**  
Select All  
Allegheny Mountains  
Cumberland Mountains  
Northern Blue Ridge

[Click here to view county map](#) [Click here to view province map](#)

**Watershed (8 digit HUC):**  
02080104 - James Rappahannock R.  
02080105 - Mattaponi River  
02080106 - Pamunkey River  
02080107 - York River

**Subwatershed (12 digit HUC):**  
BA63 - Little Toltoskey Creek  
BA64 - Toltoskey Creek  
BA65 - Farnham Creek  
BA66 - Rappahannock River-Cataw.

[Click here to view watershed map](#) [Click here to view subwatershed map](#)

**Planning District:**  
Select All  
Accomack-Norfolk  
Central Shenandoah  
Commonwealth Regional Council

**Virginia Coastal Zone:**  
Select All  
Yes  
No

Feature Search Error:  
No results found.

No conservation resources identified in the project vicinity.



# **DGIF VAFWIS**

## **Database Search**



**VaFWIS Search Report** Compiled on 11/25/2019, 11:58:05 AM[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37.4194444 -76.9118333**  
in **036 Charles City County, 095 James City County, 101 King William County, 127 New Kent County, VA**

[View Map of Site Location](#)

572 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 30) (30 species with Status\* or Tier I\*\* or Tier II\*\*)

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
060003	FESE	Ia	<a href="#">Wedgemussel, dwarf</a>	Alasmidonta heterodon		BOVA
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>	BOVA,TEWaters,Habitat,SppObs,HU6
050022	FTST	Ia	<a href="#">Bat, northern long-eared</a>	Myotis septentrionalis		BOVA
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis		BOVA
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050034	SE	Ia	<a href="#">Bat, Rafinesque's eastern big-eared</a>	Corynorhinus rafinesquii macrotis		BOVA,HU6
050027	SE	Ia	<a href="#">Bat, tri-colored</a>	Perimyotis subflavus		BOVA
040096	ST	Ia	<a href="#">Falcon, peregrine</a>	Falco peregrinus		BOVA
040293	ST	Ia	<a href="#">Shrike, loggerhead</a>	Lanius ludovicianus		BOVA
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Yes</a>	BOVA,BBA,SppObs
020044	ST	IIa	<a href="#">Salamander, Mabee's</a>	Ambystoma mabeei	<a href="#">Potential</a>	BOVA,Habitat
040292	ST		<a href="#">Shrike, migrant loggerhead</a>	Lanius ludovicianus migrans		BOVA
030067	CC	IIa	<a href="#">Terrapin, northern diamond-backed</a>	Malaclemys terrapin terrapin	<a href="#">Yes</a>	BOVA,SppObs,HU6
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata	<a href="#">Yes</a>	BOVA,SppObs,HU6



030031	CC	IIIc	<a href="#">Kingsnake, scarlet</a>	Lampropeltis elapsoides		BOVA
010174		Ia	<a href="#">Bass, Roanoke</a>	Ambloplites cavifrons		BOVA
010077		Ia	<a href="#">Shiner, bridle</a>	Notropis bifrenatus	<a href="#">Yes</a>	BOVA,Habitat,SppObs
040213		Ic	<a href="#">Owl, northern saw-whet</a>	Aegolius acadicus		BOVA
040052		IIa	<a href="#">Duck, American black</a>	Anas rubripes	<a href="#">Potential</a>	BOVA,BBA,HU6
040033		IIa	<a href="#">Egret, snowy</a>	Egretta thula		BOVA
040029		IIa	<a href="#">Heron, little blue</a>	Egretta caerulea caerulea		BOVA
040036		IIa	<a href="#">Night-heron, yellow-crowned</a>	Nyctanassa violacea violacea		BOVA
040181		IIa	<a href="#">Tern, common</a>	Sterna hirundo		BOVA,HU6
040320		IIa	<a href="#">Warbler, cerulean</a>	Setophaga cerulea		BOVA,HU6
040140		IIa	<a href="#">Woodcock, American</a>	Scolopax minor		BOVA,HU6
060071		IIa	<a href="#">Lampmussel, yellow</a>	Lampsilis cariosa		BOVA
040203		IIb	<a href="#">Cuckoo, black-billed</a>	Coccyzus erythrophthalmus		BOVA
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Potential</a>	BOVA,Habitat,BBA,HU6
080336		IIc	<a href="#">Beetle, Gammon's stenelmis riffle</a>	Stenelmis gammoni		BOVA
100003		IIc	<a href="#">Skipper, rare</a>	Problema bulenta		BOVA,HU6

To view **All 572 species** [View 572](#)

\*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 Wildlife 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 ( 7 records )

[View Map of All  
Anadromous Fish Use Streams](#)

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE*	Highest Tier**	
C17	<a href="#">Diascund Creek</a>	Confirmed	3		IV	<a href="#">Yes</a>
C58	<a href="#">Pamunkey river</a>	Confirmed	6		IV	<a href="#">Yes</a>
C90	<a href="#">Chickahominy River 1</a>	Confirmed	6		IV	<a href="#">Yes</a>
C91	<a href="#">Chickahominy River 2</a>	Confirmed	4		IV	<a href="#">Yes</a>
P143	<a href="#">Sweet Hall marsh</a>	Potential	0			<a href="#">Yes</a>
P41	<a href="#">Couziac marsh</a>	Potential	0			<a href="#">Yes</a>
P74	<a href="#">Hill marsh</a>	Potential	0			<a href="#">Yes</a>

### Impediments to Fish Passage ( 5 records )

[View Map of All  
Fish Impediments](#)

ID	Name	River	View Map
636	<a href="#">COOKS MILL DAM</a>	MILL CREEK	<a href="#">Yes</a>
431	<a href="#">DIASCUND CREEK DAM</a>	DIASCUND CREEK	<a href="#">Yes</a>
640	<a href="#">FERN DAM</a>	TR-MILL CREEK	<a href="#">Yes</a>
857	<a href="#">HARRELL DAM</a>	TR-PAMUNKEY RIVER	<a href="#">Yes</a>
1303	<a href="#">WALKERS DAM</a>	CHICKAHOMINY RIVER	<a href="#">Yes</a>

### Colonial Water Bird Survey ( 9 records )

[View Map of All Query Results  
Colonial Water Bird Survey](#)

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE*	Highest Tier**	
<a href="#">Western Shore, Walkers, Charles City</a>	2	May 5 2013	1			<a href="#">Yes</a>
<a href="#">Western Shore, Walkers, James City</a>	1	May 5 2013	1			<a href="#">Yes</a>
<a href="#">Western Shore, Walkers, New Kent</a>	3	May 5 2013	1			<a href="#">Yes</a>
<a href="#">Western Shore, New Kent, New Kent</a>	2	May 1 2013	1			<a href="#">Yes</a>
<a href="#">Barrows Creek</a>	1	May 3 2003	1			<a href="#">Yes</a>
<a href="#">Beaverdam Creek</a>	1	May 3 2003	1			<a href="#">Yes</a>



<a href="#">Wilcox Neck</a>	1	May 3 2003	2			<a href="#">Yes</a>
<a href="#">Beaverdam Creek at I-64</a>	1	Jun 1 1993	1			<a href="#">Yes</a>
<a href="#">Matahunk Neck</a>	1	Jun 1 1993	1			<a href="#">Yes</a>

Displayed 9 Colonial Water Bird Survey

### Threatened and Endangered Waters ( 147 Reaches - displaying first 20 )

[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Chickahominy River (0154282.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0156960.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0157050.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0157765.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0158346.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0158436.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0158707.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0159078.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0159493.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0160596.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0161723.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0162659.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0162907.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0162908.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



<a href="#">Chickahominy River (0163211.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0164026.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0164060.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167001.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167253.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167838.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167865.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0168861.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0169644.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

To view **All 147 Threatened and Endangered Waters records** [View 147](#)

### Managed Trout Streams

N/A

### Bald Eagle Concentration Areas and Roosts

N/A

### Bald Eagle Nests ( 26 records )

[View Map of All Query Results](#)  
[Bald Eagle Nests](#)

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
<a href="#">CC0803</a>	8	Apr 18 2011	Unknown	<a href="#">Yes</a>
<a href="#">CC1106</a>	2	Apr 18 2011	Unknown	<a href="#">Yes</a>
<a href="#">KW1001</a>	4	Apr 19 2011	UNKNOWN	<a href="#">Yes</a>
<a href="#">KW8401</a>	3	May 9 1986	HISTORIC	<a href="#">Yes</a>
<a href="#">KW8501</a>	4	Jan 1 1990	HISTORIC	<a href="#">Yes</a>
<a href="#">KW8801</a>	35	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">KW9601</a>	10	Apr 24 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">NK0001</a>	4	Jan 1 2001	HISTORIC	<a href="#">Yes</a>



<a href="#">NK0002</a>	4	Jan 1 2001	HISTORIC	<a href="#">Yes</a>
<a href="#">NK0102</a>	12	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0103</a>	1	May 1 2001	Unknown	<a href="#">Yes</a>
<a href="#">NK0104</a>	10	Mar 10 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">NK0201</a>	9	Mar 10 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">NK0303</a>	14	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0402</a>	7	Apr 26 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">NK0602</a>	13	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0701</a>	10	Apr 18 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0702</a>	10	Apr 18 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0706</a>	1	Jan 1 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">NK0801</a>	8	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0902</a>	6	Apr 18 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0903</a>	2	Mar 3 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK1103</a>	1	Apr 18 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK9301</a>	1	Jan 1 1993	HISTORIC	<a href="#">Yes</a>
<a href="#">NK9402</a>	16	Jan 1 2002	HISTORIC	<a href="#">Yes</a>
<a href="#">NK9804</a>	21	Apr 19 2011	Unknown	<a href="#">Yes</a>

Displayed 26 Bald Eagle Nests

**Species Observations** ( 251 records - displaying first 20 ,  
10 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**	
<a href="#">630231</a>	SppObs	Oct 14 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630230</a>	SppObs	Aug 12 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630228</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630229</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630227</a>	SppObs	Jul 10 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630226</a>	SppObs	Jul 9 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">664</a>	SppObs	Jan 1 1900		1	ST	I	<a href="#">Yes</a>
<a href="#">59799</a>	SppObs	May 15 2000	Dr. William G. Reay, Virginia Institute of Marine Science	1	CC	II	<a href="#">Yes</a>
<a href="#">29728</a>	SppObs	Jan 1	Mitchell, J. C.	1	CC	III	<a href="#">Yes</a>



		1900					
<a href="#">29727</a>	SppObs	Jan 1 1900	Mitchell, J. C.	1	CC	III	<a href="#">Yes</a>
<a href="#">611956</a>	SppObs	Jun 29 2011	Wayne; Starnes	23		I	<a href="#">Yes</a>
<a href="#">331602</a>	SppObs	Jan 1 1949	ECR-RANEY	20		I	<a href="#">Yes</a>
<a href="#">426188</a>	SppObs	Aug 1 2007	VCU - INSTAR	15		III	<a href="#">Yes</a>
<a href="#">340879</a>	SppObs	Jun 1 2004	WWS DGIF Greenlee and crew	9		III	<a href="#">Yes</a>
<a href="#">340854</a>	SppObs	Oct 6 2003	WWS DGIF Greenlee & Cole	14		III	<a href="#">Yes</a>
<a href="#">339741</a>	SppObs	Oct 28 2002	Greenlee, DMC	16		III	<a href="#">Yes</a>
<a href="#">339718</a>	SppObs	Oct 25 2002	Greenlee, DMC	14		III	<a href="#">Yes</a>
<a href="#">339738</a>	SppObs	Oct 25 2001	Greenlee, DMC	18		III	<a href="#">Yes</a>
<a href="#">339805</a>	SppObs	Apr 27 2001	Greenlee, Blommel, Currier	19		III	<a href="#">Yes</a>
<a href="#">339736</a>	SppObs	Apr 27 2001	Greenlee, Blommel, Currier	22		III	<a href="#">Yes</a>

Displayed 20 Species Observations

Selected 251 Observations [View all 251 Species Observations](#)

### Habitat Predicted for Aquatic WAP Tier I & II Species ( 2 Reaches )

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

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Chickahominy River (20802061)		010077		Ia	<a href="#">Shiner, bridle</a>	Notropis bifrenatus	<a href="#">Yes</a>
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

### Habitat Predicted for Terrestrial WAP Tier I & II Species ( 2 Species )

[View Map of Combined Terrestrial Habitat Predicted for 2 WAP Tier I & II Species Listed Below](#)

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
-----------	---------	--------	-------------	-----------------	----------



020044	ST	Ila	<a href="#">Salamander, Mabee's</a>	Ambystoma mabeei	<a href="#">Yes</a>
040105		Iib	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Yes</a>

**Virginia Breeding Bird Atlas Blocks** ( 11 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE *	Highest Tier **	
55094	<a href="#">New Kent, CE</a>	49	ST	I	<a href="#">Yes</a>
55093	<a href="#">New Kent, CW</a>	1			<a href="#">Yes</a>
55092	<a href="#">New Kent, NE</a>	1			<a href="#">Yes</a>
55095	<a href="#">New Kent, SW</a>	1			<a href="#">Yes</a>
56083	<a href="#">Toano, CW</a>	44		III	<a href="#">Yes</a>
56085	<a href="#">Toano, SW</a>	1			<a href="#">Yes</a>
55084	<a href="#">Walkers, CE</a>	1			<a href="#">Yes</a>
55083	<a href="#">Walkers, CW</a>	1			<a href="#">Yes</a>
55086	<a href="#">Walkers, SE</a>	34		IV	<a href="#">Yes</a>
55085	<a href="#">Walkers, SW</a>	3			<a href="#">Yes</a>
56093	<a href="#">West Point, CW</a>	1			<a href="#">Yes</a>

**Public Holdings:**

N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
036	<a href="#">Charles City</a>	394	FTSE	I
095	<a href="#">James City</a>	420	FESE	I
101	<a href="#">King William</a>	406	FESE	I
127	<a href="#">New Kent</a>	413	FESE	I

**USGS 7.5' Quadrangles:**

Walkers  
 New Kent  
 Toano  
 West Point

**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
JL24	<a href="#">Chickahominy River-Big Swamp</a>	70	SE	I
JL25	<a href="#">Chickahominy River-Barrows Creek</a>	67	SE	I
JL26	<a href="#">Diascund Creek-Diascund Creek Reservoir</a>	63	SE	I
JL27	<a href="#">Diascund Creek-Mill Creek</a>	69	SE	I
YO36	<a href="#">Pamunkey River-Cohoke Mill Creek</a>	64	FESE	I
YO37	<a href="#">Pamunkey River-Mill Creek</a>	63	FESE	I
YO60	<a href="#">Mattaponi River-Heartquake Creek</a>	58	SS	II

Compiled on 11/25/2019, 11:58:05 AM I1003518.0 report=all searchType= L dist= 3218 poi= 37.4194444 -76.9118333 siteDD= 37.4194722 -76.9118415;37.4234472 -76.9110998;37.4265027 -76.9087304;37.4300777 -76.9123526;37.4325222 -76.9146026;37.4529222 -76.9281165;37.4793388 -76.9255526;37.5290000 -76.9207304;37.5530388 -76.9117748;37.5679444 -76.9068582;

PixelSize=64; Anadromous=0.093138; BBA=0.131806; BECAR=0.035579; Bats=0.046581; Buffer=0.422905; County=0.251214; HU6=0.260822; Impediments=0.062197; Init=0.495718; PublicLands=0.095075; Quad=0.168839; SppObs=0.928268; TEWaters=0.115072; TierReaches=0.137984; TierTerrestrial=0.191675; Total=3.448632; Tracking\_BOVA=0.203634; Trout=0.092001; huva=0.128811



## Site Location

37,25,10.0 -76,54,42.6  
is the Search Point

## Show Position Rings

☒ Yes ☐ No

4 miles and 1 mile at the  
Search Point

## Show Search Area

☒ Yes ☐ No

2 Search distance miles  
buffer

Display Search Point is  
at center not at map center

Base Map [Choices](#)

Topography

Map Overlay [Choices](#)

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

## Map Overlay Legend

## T &amp; E Waters

Federal

State

Predicted Habitat  
WAP Tier I & II

Aquatic

Terrestrial

## Trout Waters

Class I - IV

Class V - VI

## Anadromous Fish Reach

Confirmed

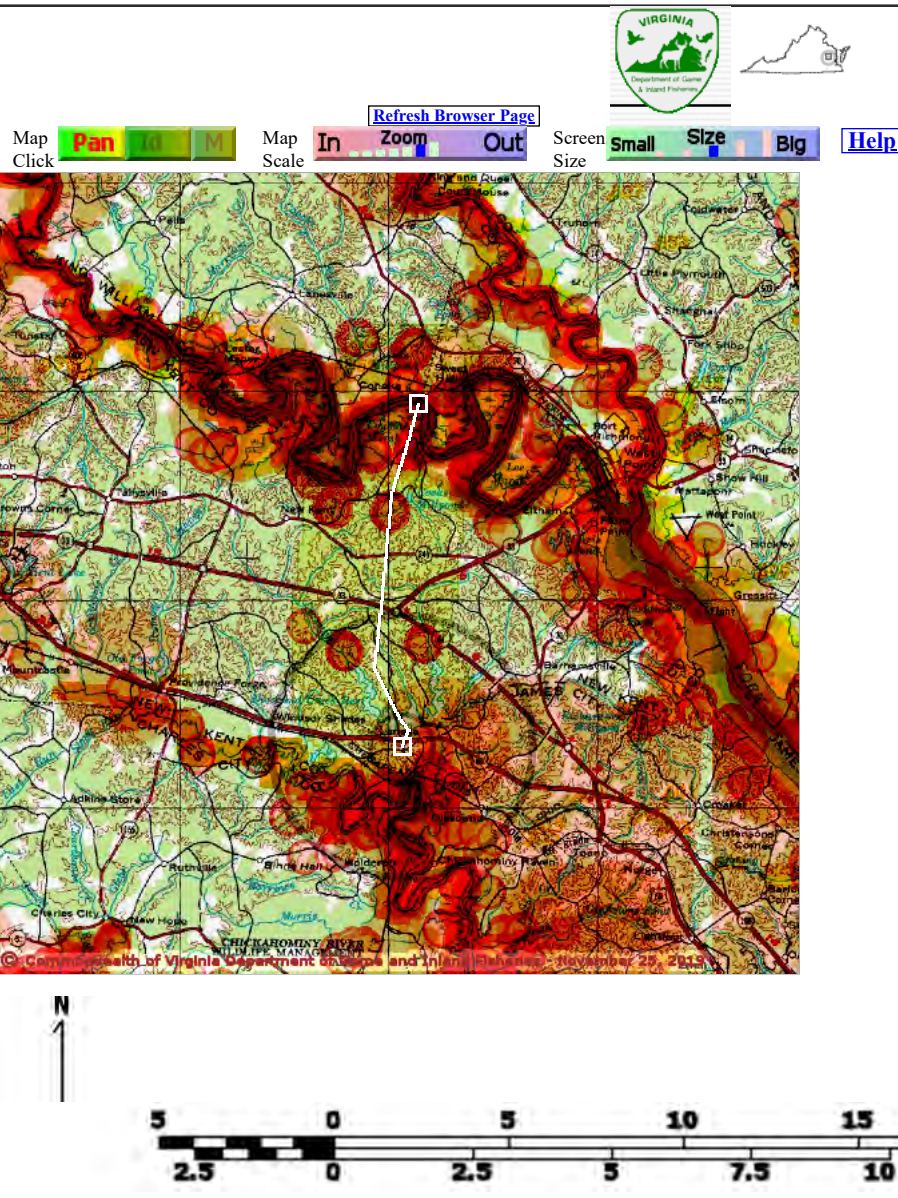
Potential

## 322 Impediment

Position Rings  
4 miles and 1  
mile at the  
Search Point

2 mile radius  
Search Area

Bald Eagle  
Concentration Areas  
and Roosts



Point of Search 37,25,10.0 -76,54,42.6

Map Location 37,29,38.0 -76,54,55.6

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 1:250,000 topographic maps (see [Microsoft.terraser.com](http://Microsoft.terraser.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 311472 and top 4170589. Pixel size is 38. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 38400 meters east to west by 38400 meters north to south for a total of 1474.5 square kilometers. The map display represents 126005 feet east to west by 126005 feet north to south for a total of 569.5 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 acquired 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 Game and Inland Fisheries.

map assembled 2019-11-25 11:58:47 (qa/qc March 21, 2016 12:20 - tn=1003518.0 dist=3218  
I)

\$poi=37.4194444 -76.9118333







# 1 Species Observations where Sparrow, Henslow s (040379) observed

37,25,10.0 -76,54,42.6  
is the Search Point

## Show Position Rings

☒ Yes ☐ No

4 miles and 1 mile at the  
Search Point

## Show Search Area

☒ Yes ☐ No

2 Search distance miles  
buffer

Display Search Point is  
at center not at map center

## Base Map [Choices](#)

Topography ▼

## Map Overlay [Choices](#)

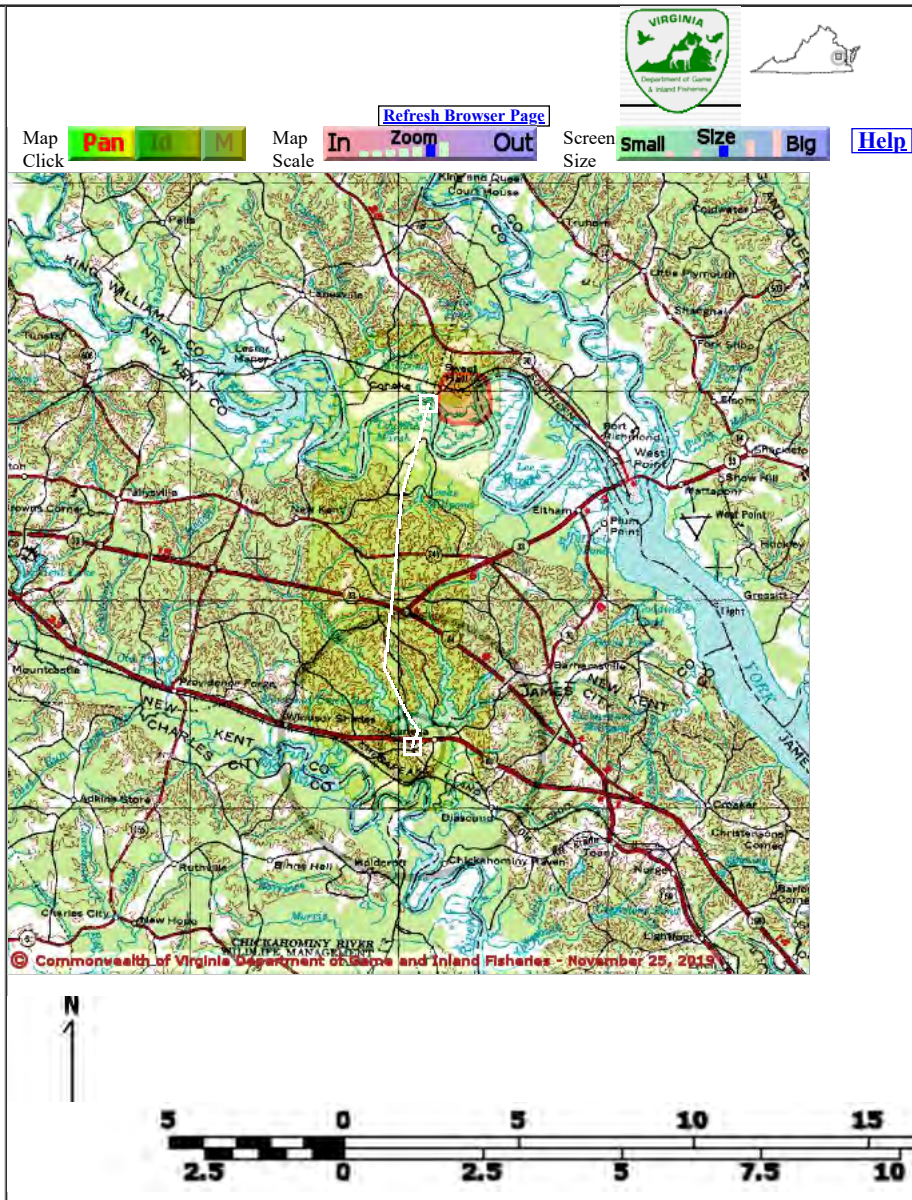
Current List: Position, Search,  
SppObs

## Map Overlay Legend

 Position Rings  
4 miles and 1  
mile at the  
Search Point

 2 mile radius  
Search Area

 Data  
Observation Site



Point of Search 37,25,10.0 -76,54,42.6

Map Location 37,29,38.0 -76,54,55.6

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 1:250,000 topographic maps (see [Microsoft terra-server-usa.com](http://Microsoft.terra-server-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 311472 and top 4170589. Pixel size is 38. .  
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed  
as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 38400 meters  
east to west by 38400 meters north to south for a total of 1474.5 square kilometers. The map  
display represents 126005 feet east to west by 126005 feet north to south for a total of 569.5 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 Game and Inland  
Fisheries.

map assembled 2019-11-25 12:09:23 (qa/qc March 21, 2016 12:20 - tn=1003518.1 dist=3218  
I)

\$poi=37.4194444 -76.9118333









# Virginia Department of Game and Inland Fisheries

11/25/2019 12:08:53 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 12:08:53 PM

[Help](#)

Known or likely to occur within a **2 mile buffer** around line beginning **37.4194444**  
**-76.9118333**

in **036 Charles City County, 095 James City County, 101 King William County, 127 New Kent County, VA**

where (040379) [Sparrow, Henslow s](#) observed.

[View Map of Site Location](#)

[View Map of All Query Results from All Observation Tables](#) where Sparrow, Henslow s (040379) observed

### Species Observations where Sparrow, Henslow s (040379) observed

( 1 records , 1 Observation with  
Threatened or Endangered species )

[View Map of All Query Results](#)  
[Species Observations where Sparrow, Henslow s \(040379\) observed](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE *	Highest Tier **	
<a href="#">664</a>	SppObs	Jan 1 1900		1	ST	I	<a href="#">Yes</a>

Displayed 1 Species Observations where Sparrow, Henslow s (040379) observed

\*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 Wildlife 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.

### Virginia Breeding Bird Atlas Blocks where Sparrow, Henslow s (040379) observed

( 1 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE *	Highest Tier **	
55094	<a href="#">New Kent, CE</a>	49	ST	I	<a href="#">Yes</a>



Compiled on 11/25/2019, 12:08:53 PM I1003518.1 report=BOVA searchType= L dist= 3218 poi= 37.4194444 -76.9118333

**audit no. 1003518 11/25/2019 12:08:53 PM Virginia Fish and Wildlife Information Service**  
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**Predicted Habitat  
(020044) Salamander,  
Mabee's**37,25,10.0 -76,54,42.6  
is the Search PointDisplay Item Location is  
at center not at map center**Show Position Rings**☒ Yes ☐ No4 miles and 1 mile at the  
Search Point**Show Search Area**☒ Yes ☐ No2 Search distance miles  
bufferDisplay Search Point is  
at center not at map center**Base Map** [Choices](#)

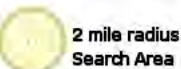
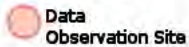
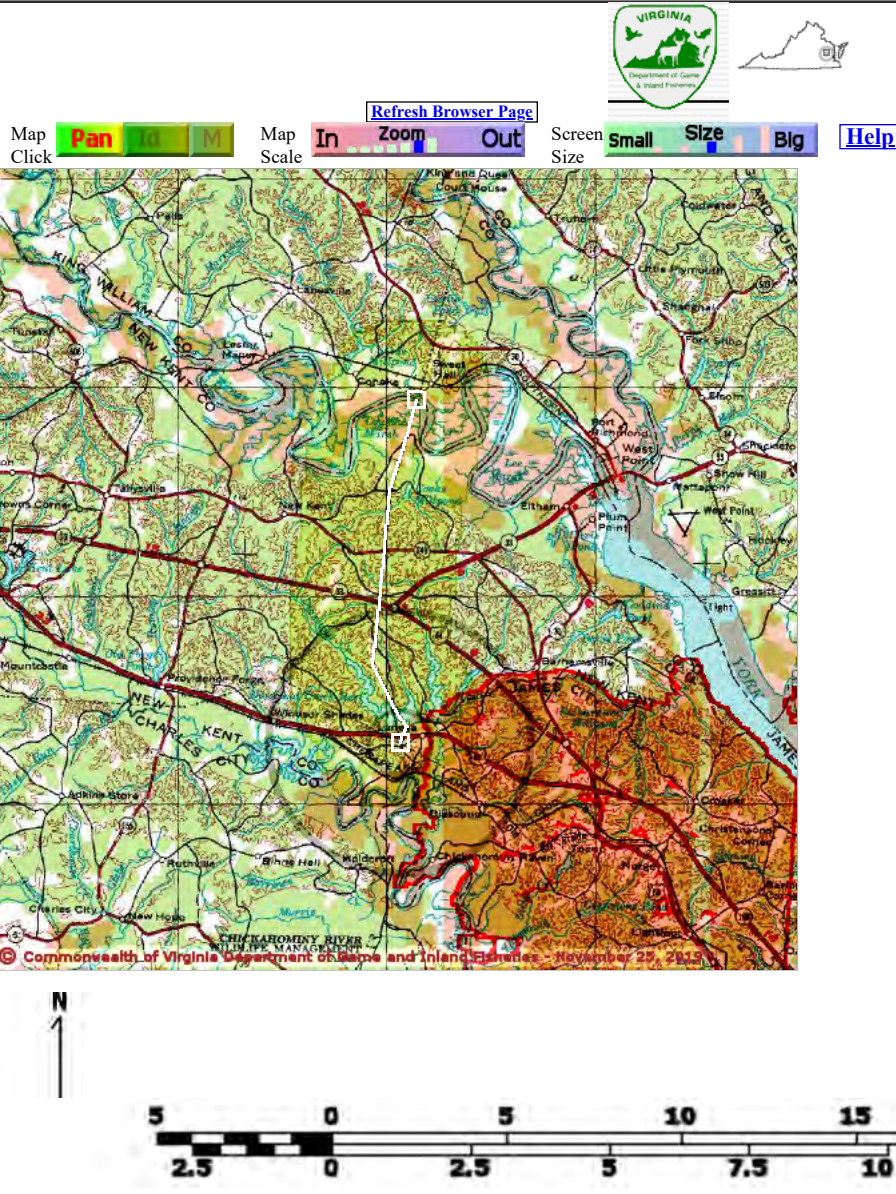
Topography

**Map Overlay** [Choices](#)Current List: Position, Search,  
Observation**Map Overlay Legend****Predicted Habitat:**

WAP Tier I &amp; II

Aquatic

Terrestrial

 Position Rings  
4 miles and 1  
mile at the  
Search Point 2 mile radius  
Search Area Data  
Observation Site

Point of Search 37,25,10.0 -76,54,42.6

Map Location 37,29,38.0 -76,54,55.6

Select **Coordinate System:** ☒ Degrees, Minutes, Seconds Latitude - Longitude☐ Decimal Degrees Latitude - Longitude☐ Meters UTM NAD83 East North Zone☐ Meters UTM NAD27 East North ZoneBase Map source: USGS 1:250,000 topographic maps (see [Microsoft terraServer-usa.com](http://Microsoft.terraServer-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 311472 and top 4170589. Pixel size is 38. .  
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display represents 126005 feet east to west by 126005 feet north to south for a total of 569.5 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 acquired 2002 is from Virginia Base Mapping Program, Virginia  
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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 Game and Inland  
Fisheries.

map assembled 2019-11-25 12:11:14 (qa/qc March 21, 2016 12:20 - tn=1003518.1 dist=3218  
1)



\$poi=37.4194444 -76.9118333\$query=select BOVA from  
vafwis\_tables.dbo.cvTierTerrestrial where BOVA in ('020044')





# Virginia Department of Game and Inland Fisheries

11/25/2019 12:10:30 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 12:10:30 PM[Help](#)

Observations reported or potential habitat occurs within a **2 mile buffer around line beginning 37.4194444 -76.9118333**  
in **036 Charles City County, 095 James City County, 101 King William County, 127 New Kent County, VA**  
where (020044) [Salamander, Mabees](#) observed.

[View Map of  
Site Location](#)

**Habitat Predicted for Aquatic WAP Tier I & II Species where Salamander, Mabees (020044) observed**

N/A

**Habitat Predicted for Terrestrial WAP Tier I & II Species where Salamander, Mabees (020044) observed**

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
020044	ST	Ila	<a href="#">Salamander, Mabees</a>	Ambystoma mabeei	<a href="#">Yes</a>

Compiled on 11/25/2019, 12:10:30 PM I1003518.1 report=BOVA searchType= L dist= 3218 poi= 37.4194444 -76.9118333

audit no. 1003518 11/25/2019 12:10:30 PM Virginia Fish and Wildlife Information Service  
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# Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

37,25,10.0 -76,54,42.6  
is the Search Point

## Show Position Rings

☒ Yes ☐ No  
4 miles and 1 mile at the Search Point

## Show Search Area

☒ Yes ☐ No  
2 Search distance miles  
buffer

Display Search Point is  
at center not at map center

## Base Map Choices

Topography

## Map Overlay Choices

Current List: Position, Search, TEWaters

## Map Overlay Legend

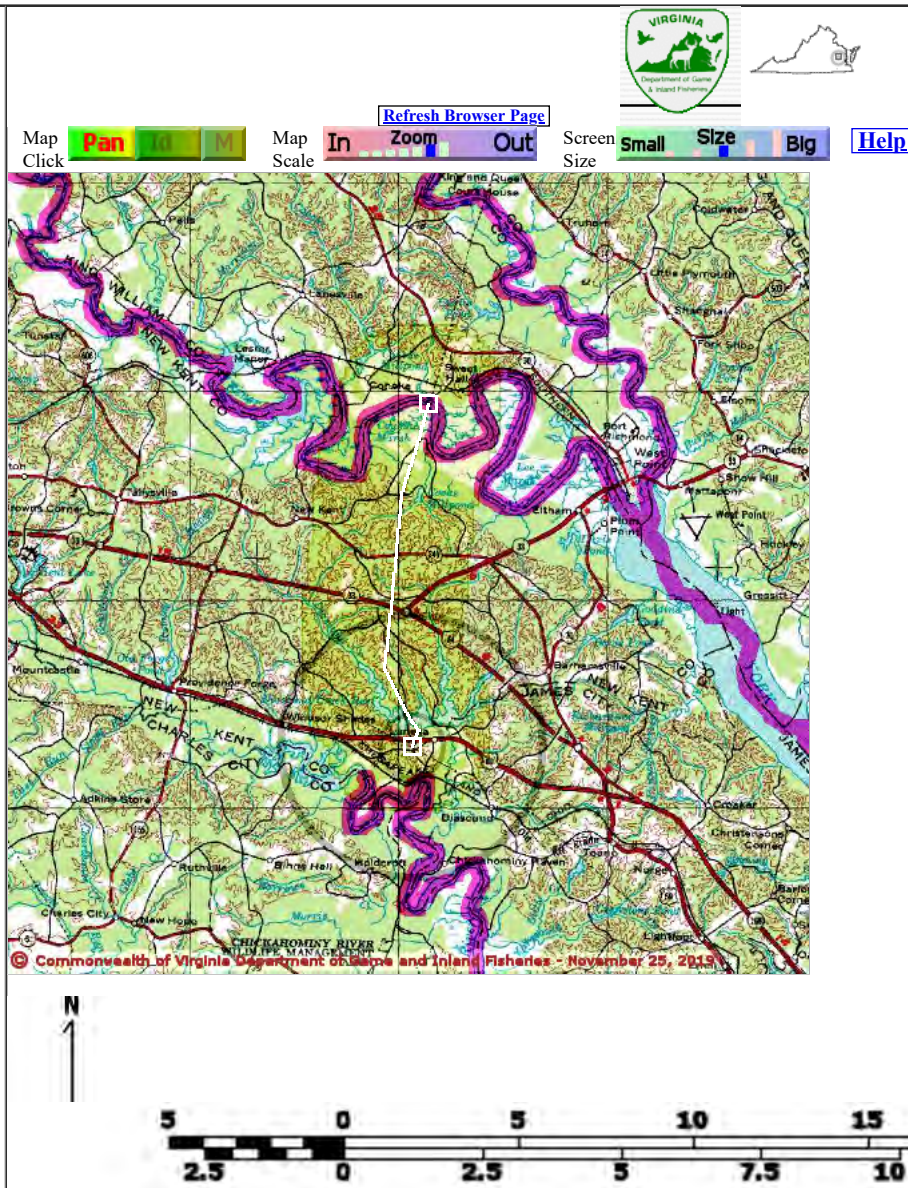
### T & E Waters

Federal

State

Position Rings  
4 miles and 1  
mile at the  
Search Point

2 mile radius  
Search Area



Point of Search 37,25,10.0 -76,54,42.6

Map Location 37,29,38.0 -76,54,55.6

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 1:250,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 311472 and top 4170589. Pixel size is 38. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 38400 meters east to west by 38400 meters north to south for a total of 1474.5 square kilometers. The map display represents 126005 feet east to west by 126005 feet north to south for a total of 569.5 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 acquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.

Shaded topographic maps are from TOPO! ©2006 National Geographic  
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All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2019-11-25 12:07:44 (qa/qc March 21, 2016 12:20 - tn=1003518.1 dist=3218 I)

\$poi=37.4194444 -76.9118333









# Virginia Department of Game and Inland Fisheries

11/25/2019 12:07:05 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 12:07:05 PM

[Help](#)

Known or likely to occur within a **2 mile buffer** around line beginning **37.4194444**  
**-76.9118333**

in **036 Charles City County, 095 James City County, 101 King William County, 127 New Kent County, VA**

where (010032) [Sturgeon, Atlantic](#) observed.

[View Map of Site Location](#)

### Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

( 147 Reaches - displaying first 20 )

[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Chickahominy River (0154282)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0156960)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0157050)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0157765)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0158346)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0158436)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0158707)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0159078)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0159493)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0160596)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



<a href="#">Chickahominy River (0161723.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0162659.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0162907.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0162908.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0163211.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0164026.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0164060.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167001.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167253.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167838.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0167865.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0168861.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Chickahominy River (0169644.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

To view **All 147 Threatened and Endangered Waters records** [View 147](#)

\*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 Wildlife 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.

### Species Observations where Sturgeon, Atlantic (010032) observed

( 6 records , 6 Observations with  
Threatened or Endangered species )

[View Map of All Query Results](#)

[Species Observations where Sturgeon, Atlantic \(010032\) observed](#)



obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
<a href="#">630231</a>	SppObs	Oct 14 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630230</a>	SppObs	Aug 12 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630228</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630229</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630227</a>	SppObs	Jul 10 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630226</a>	SppObs	Jul 9 2015		1	FESE	I	<a href="#">Yes</a>

Displayed 6 Species Observations where Sturgeon, Atlantic (010032) observed

### Habitat Predicted for Aquatic WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

( 1 Reach )

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

Stream Name	Tier Species						View Map
	Highest TE <sup>*</sup>	BOVA Code, Status <sup>*</sup> , Tier <sup>**</sup> , Common & Scientific Name					
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

### Habitat Predicted for Terrestrial WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

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
YO36	<a href="#">Pamunkey River-Cohoke Mill Creek</a>	64	FESE	I
YO37	<a href="#">Pamunkey River-Mill Creek</a>	63	FESE	I

Compiled on 11/25/2019, 12:07:06 PM I1003518.1 report=BOVA searchType= L dist= 3218 poi= 37.4194444 -76.9118333

audit no. 1003518 11/25/2019 12:07:06 PM Virginia Fish and Wildlife Information Service  
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**VaFWIS Search Report** Compiled on 11/25/2019, 12:18:04 PM[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37,34,04.5 -76,54,24.5**  
in **097 King and Queen County, 101 King William County, 127 New Kent County, VA**

[View Map of  
Site Location](#)

530 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 22) (22 species with Status\* or Tier I\*\* or Tier II\*\*)

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
060003	FESE	Ia	<a href="#">Wedgemussel, dwarf</a>	Alasmidonta heterodon		BOVA
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>	BOVA,TEWaters,Habitat,SppObs,HU6
050022	FTST	Ia	<a href="#">Bat, northern long-eared</a>	Myotis septentrionalis		BOVA
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis		BOVA
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050034	SE	Ia	<a href="#">Bat, Rafinesque's eastern big- eared</a>	Corynorhinus rafinesquii macrootis		BOVA,HU6
050027	SE	Ia	<a href="#">Bat, tri- colored</a>	Perimyotis subflavus		BOVA
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Yes</a>	BOVA,BBA,SppObs
030067	CC	IIa	<a href="#">Terrapin, northern diamond- backed</a>	Malaclemys terrapin terrapin	<a href="#">Yes</a>	BOVA,SppObs,HU6
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata	<a href="#">Yes</a>	BOVA,SppObs,HU6
030031	CC	IIIc	<a href="#">Kingsnake, scarlet</a>	Lampropeltis elapsoides		BOVA
010174		Ia	<a href="#">Bass, Roanoke</a>	Ambloplites cavifrons		BOVA
040052		IIa	<a href="#">Duck, American black</a>	Anas rubripes	<a href="#">Potential</a>	BOVA,BBA,HU6
040029		IIa	<a href="#">Heron, little blue</a>	Egretta caerulea caerulea		BOVA



040036		IIa	<a href="#">Night-heron, yellow-crowned</a>	Nyctanassa violacea violacea		BOVA
040320		IIa	<a href="#">Warbler, cerulean</a>	Setophaga cerulea		BOVA,HU6
040140		IIa	<a href="#">Woodcock, American</a>	Scolopax minor		BOVA,HU6
060071		IIa	<a href="#">Lampmussel, yellow</a>	Lampsilis cariosa		BOVA
040203		IIb	<a href="#">Cuckoo, black-billed</a>	Coccyzus erythrophthalmus		BOVA
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Potential</a>	BOVA,Habitat,BBA,HU6
080336		IIc	<a href="#">Beetle, Gammon's stenelmis riffle</a>	Stenelmis gammoni		BOVA
100003		IIc	<a href="#">Skipper, rare</a>	Problema bulenta		BOVA,HU6

To view **All 530 species** [View 530](#)

\*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 Wildlife 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 ( 12 records )

[View Map of All Anadromous Fish Use Streams](#)

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE *	Highest Tier **	
C182	<a href="#">Mattaponi river</a>	Confirmed	6		IV	<a href="#">Yes</a>
C58	<a href="#">Pamunkey river</a>	Confirmed	6		IV	<a href="#">Yes</a>
C81	<a href="#">York River</a>	Confirmed	6		IV	<a href="#">Yes</a>
P102	<a href="#">Mattaponi BW3</a>	Potential	0			<a href="#">Yes</a>
P106	<a href="#">Mitchell Hill creek</a>	Potential	0			<a href="#">Yes</a>
P143	<a href="#">Sweet Hall marsh</a>	Potential	0			<a href="#">Yes</a>



P159	<a href="#">Unnamed Tr. 3 of Mattaponi</a>	Potential	0			<a href="#">Yes</a>
P40	<a href="#">Courthouse creek</a>	Potential	0			<a href="#">Yes</a>
P41	<a href="#">Couziac marsh</a>	Potential	0			<a href="#">Yes</a>
P63	<a href="#">Gleason marsh</a>	Potential	0			<a href="#">Yes</a>
P65	<a href="#">Grass creek</a>	Potential	0			<a href="#">Yes</a>
P74	<a href="#">Hill marsh</a>	Potential	0			<a href="#">Yes</a>

**Impediments to Fish Passage** ( 4 records )
[View Map of All Fish Impediments](#)

ID	Name	River	View Map
856	<a href="#">CUSTIS DAM</a>	MILL CREEK	<a href="#">Yes</a>
857	<a href="#">HARRELL DAM</a>	TR-PAMUNKEY RIVER	<a href="#">Yes</a>
875	<a href="#">JOHNSONS DAM</a>	TR-BULL SWAMP	<a href="#">Yes</a>
605	<a href="#">KING &amp; QUEEN COURTHOUSE DAM</a>	COURTHOUSE CREEK	<a href="#">Yes</a>

**Colonial Water Bird Survey** ( 4 records )
[View Map of All Query Results Colonial Water Bird Survey](#)

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE *	Highest Tier **	
<a href="#">Western Shore, King And Queen Court Hous, King and Queen</a>	1	May 1 2013	1			<a href="#">Yes</a>
<a href="#">Western Shore, New Kent, New Kent</a>	2	May 1 2013	1			<a href="#">Yes</a>
<a href="#">Courthouse Creek</a>	1	May 2 2003	1			<a href="#">Yes</a>
<a href="#">Custis Pond</a>	2	May 1 2003	1			<a href="#">Yes</a>

Displayed 4 Colonial Water Bird Survey

**Threatened and Endangered Waters** ( 174 Reaches - displaying first 20 )
[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE <sup>*</sup>	BOVA Code, Status <sup>*</sup> , Tier <sup>**</sup> , Common & Scientific Name					
<a href="#">Mattaponi River (0115605.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0115730.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0115748.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0116202.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



<a href="#">Mattaponi River (0118265)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0119418)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120000)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120019)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120159)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120195)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120470)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120598)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121266)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121314)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121339)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121607)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122262)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122265)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122413)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0123524)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0123956)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124030)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124187)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



To view All 174 Threatened and Endangered Waters records [View 174](#)**Managed Trout Streams**

N/A

**Bald Eagle Concentration Areas and Roosts**

N/A

**Bald Eagle Nests** ( 20 records )[View Map of All Query Results  
Bald Eagle Nests](#)

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
<a href="#">KQ0801</a>	8	Apr 19 2011	HISTORIC	<a href="#">Yes</a>
<a href="#">KQ9401</a>	6	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">KW0103</a>	2	May 1 2001	HISTORIC	<a href="#">Yes</a>
<a href="#">KW0201</a>	17	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">KW0303</a>	16	Apr 19 2011	HISTORIC	<a href="#">Yes</a>
<a href="#">KW1001</a>	4	Apr 19 2011	UNKNOWN	<a href="#">Yes</a>
<a href="#">KW7701</a>	4	May 11 1985	HISTORIC	<a href="#">Yes</a>
<a href="#">KW8401</a>	3	May 9 1986	HISTORIC	<a href="#">Yes</a>
<a href="#">KW8501</a>	4	Jan 1 1990	HISTORIC	<a href="#">Yes</a>
<a href="#">KW8801</a>	35	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">KW9102</a>	11	Jan 1 2002	HISTORIC	<a href="#">Yes</a>
<a href="#">KW9501</a>	4	Apr 24 1996	HISTORIC	<a href="#">Yes</a>
<a href="#">KW9601</a>	10	Apr 24 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">KW9901</a>	22	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0001</a>	4	Jan 1 2001	HISTORIC	<a href="#">Yes</a>
<a href="#">NK0002</a>	4	Jan 1 2001	HISTORIC	<a href="#">Yes</a>
<a href="#">NK0102</a>	12	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK0201</a>	9	Mar 10 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">NK0303</a>	14	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">NK9402</a>	16	Jan 1 2002	HISTORIC	<a href="#">Yes</a>

Displayed 20 Bald Eagle Nests

**Species Observations** ( 292 records - displaying first 20 , 9  
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**	



<a href="#">630231</a>	SppObs	Oct 14 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630230</a>	SppObs	Aug 12 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630228</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630229</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630227</a>	SppObs	Jul 10 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630226</a>	SppObs	Jul 9 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">664</a>	SppObs	Jan 1 1900		1	ST	I	<a href="#">Yes</a>
<a href="#">59799</a>	SppObs	May 15 2000	Dr. William G. Reay, Virginia Institute of Marine Science	1	CC	II	<a href="#">Yes</a>
<a href="#">29727</a>	SppObs	Jan 1 1900	Mitchell, J. C.	1	CC	III	<a href="#">Yes</a>
<a href="#">605242</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	4		III	<a href="#">Yes</a>
<a href="#">340899</a>	SppObs	Sep 23 2004	WWS DGIF greenlee and cole	15		III	<a href="#">Yes</a>
<a href="#">426559</a>	SppObs	Oct 4 2003	VCU - INSTAR	9		III	<a href="#">Yes</a>
<a href="#">426184</a>	SppObs	Jul 25 2003	VCU - INSTAR	9		III	<a href="#">Yes</a>
<a href="#">426554</a>	SppObs	Jul 17 2003	VCU - INSTAR	16		III	<a href="#">Yes</a>
<a href="#">52716</a>	SppObs	Apr 26 1996	Mike Mulligan, Chesapeake Bay Foundation	3		III	<a href="#">Yes</a>
<a href="#">52715</a>	SppObs	Apr 25 1996	Mike Mulligan, Chesapeake Bay Foundation	3		III	<a href="#">Yes</a>
<a href="#">7481</a>	SppObs	Jul 10 1994	JOSEPH C. MITCHELL	1		III	<a href="#">Yes</a>
<a href="#">6105</a>	SppObs	May 1 1994	Joseph C. Mitchell	1		III	<a href="#">Yes</a>
<a href="#">15930</a>	SppObs	Sep 6 1978	VIMS	11		III	<a href="#">Yes</a>
<a href="#">336513</a>	SppObs	Jan 1 1978	VIMS-B-VA. INST. MARINE SCI.	12		III	<a href="#">Yes</a>

Displayed 20 Species Observations

**Selected 292 Observations** [View all 292 Species Observations](#)

**Habitat Predicted for Aquatic WAP Tier I & II Species** ( 1 Reach )



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

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

## Habitat Predicted for Terrestrial WAP Tier I &amp; II Species

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Yes</a>

## Virginia Breeding Bird Atlas Blocks ( 9 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE *	Highest Tier **	
55104	<a href="#">King and Queen Court House, CE</a>	1			<a href="#">Yes</a>
55106	<a href="#">King and Queen Court House, SE</a>	39		III	<a href="#">Yes</a>
55094	<a href="#">New Kent, CE</a>	49	ST	I	<a href="#">Yes</a>
55093	<a href="#">New Kent, CW</a>	1			<a href="#">Yes</a>
55092	<a href="#">New Kent, NE</a>	1			<a href="#">Yes</a>
55091	<a href="#">New Kent, NW</a>	1			<a href="#">Yes</a>
56105	<a href="#">Truhart, SW</a>	10		III	<a href="#">Yes</a>
56093	<a href="#">West Point, CW</a>	1			<a href="#">Yes</a>
56091	<a href="#">West Point, NW</a>	25		III	<a href="#">Yes</a>

## Public Holdings:

N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
097	<a href="#">King and Queen</a>	397	FESE	I
101	<a href="#">King William</a>	406	FESE	I
127	<a href="#">New Kent</a>	413	FESE	I

## USGS 7.5' Quadrangles:

New Kent

King and Queen Court House



West Point  
Truhart**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
YO36	<a href="#">Pamunkey River-Cohoke Mill Creek</a>	64	FESE	I
YO37	<a href="#">Pamunkey River-Mill Creek</a>	63	FESE	I
YO59	<a href="#">Mattaponi River-Courthouse Creek</a>	57	SS	II
YO60	<a href="#">Mattaponi River-Heartquake Creek</a>	58	SS	II

Compiled on 11/25/2019, 12:18:05 PM I1003534.0 report=all searchType= L dist= 3218 poi= 37,34,04.5 -76,54,24.5 siteDD= 37.5679444 -76.9068332;37.5933027 -76.8992304;37.6379277 -76.8860998;37.6561444 -76.8787776

PixelSize=64; Anadromous=0.073174; BBA=0.118324; BECAR=0.029603; Bats=0.043513; Buffer=0.317085; County=0.208172; HU6=0.189685; Impediments=0.050991; Init=0.388755; PublicLands=0.054333; Quad=0.107601; SppObs=0.775991; TEWaters=0.089521; TierReaches=0.095177; TierTerrestrial=0.121519; Total=2.772507; Tracking\_BOVA=0.258304; Trout=0.05656; huva=0.090451



**Site Location**

37,34,04.5 -76,54,24.5  
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  
buffer

Display Search Point is  
at center not at map center

**Base Map Choices**

Topography

**Map Overlay Choices**

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

**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

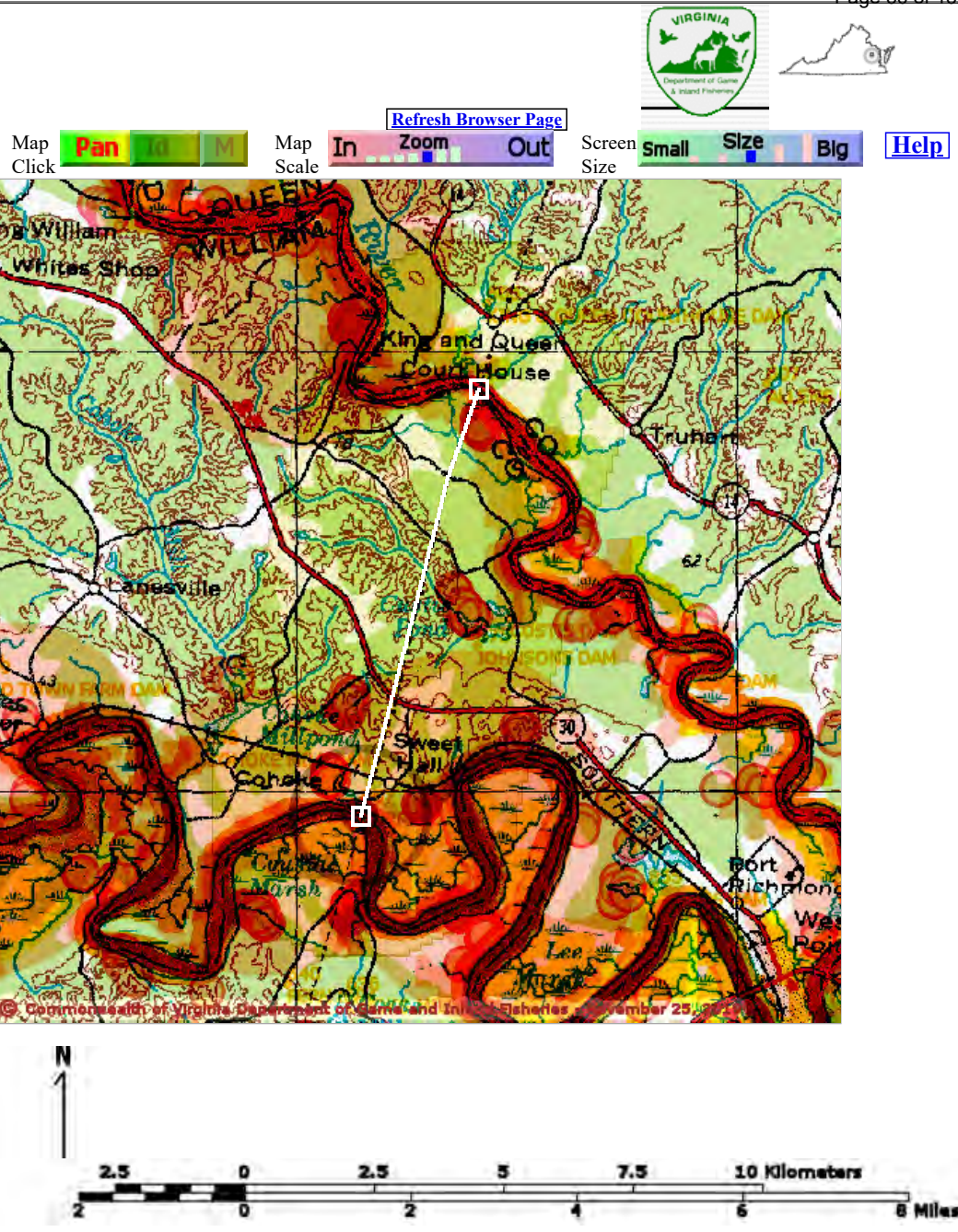
Potential

**Impediment**

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

2 mile radius  
Search Area

Bald Eagle  
Concentration Areas  
and Roosts



Point of Search 37,34,04.5 -76,54,24.5

Map Location 37,36,43.3 -76,53,34.1

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 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 323339 and top 4174056. Pixel size is 27. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 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 Game and Inland Fisheries.

map assembled 2019-11-25 12:19:25 (qa/qc March 21, 2016 12:20 - tn=1003534.0 dist=3218

I )

\$poi=37.5679167 -76.9068056

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# 1 Species Observations where Sparrow, Henslow s (040379) observed

37,34,04.5 -76,54,24.5  
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  
buffer

Display Search Point is  
at center not at map center

## Base Map Choices

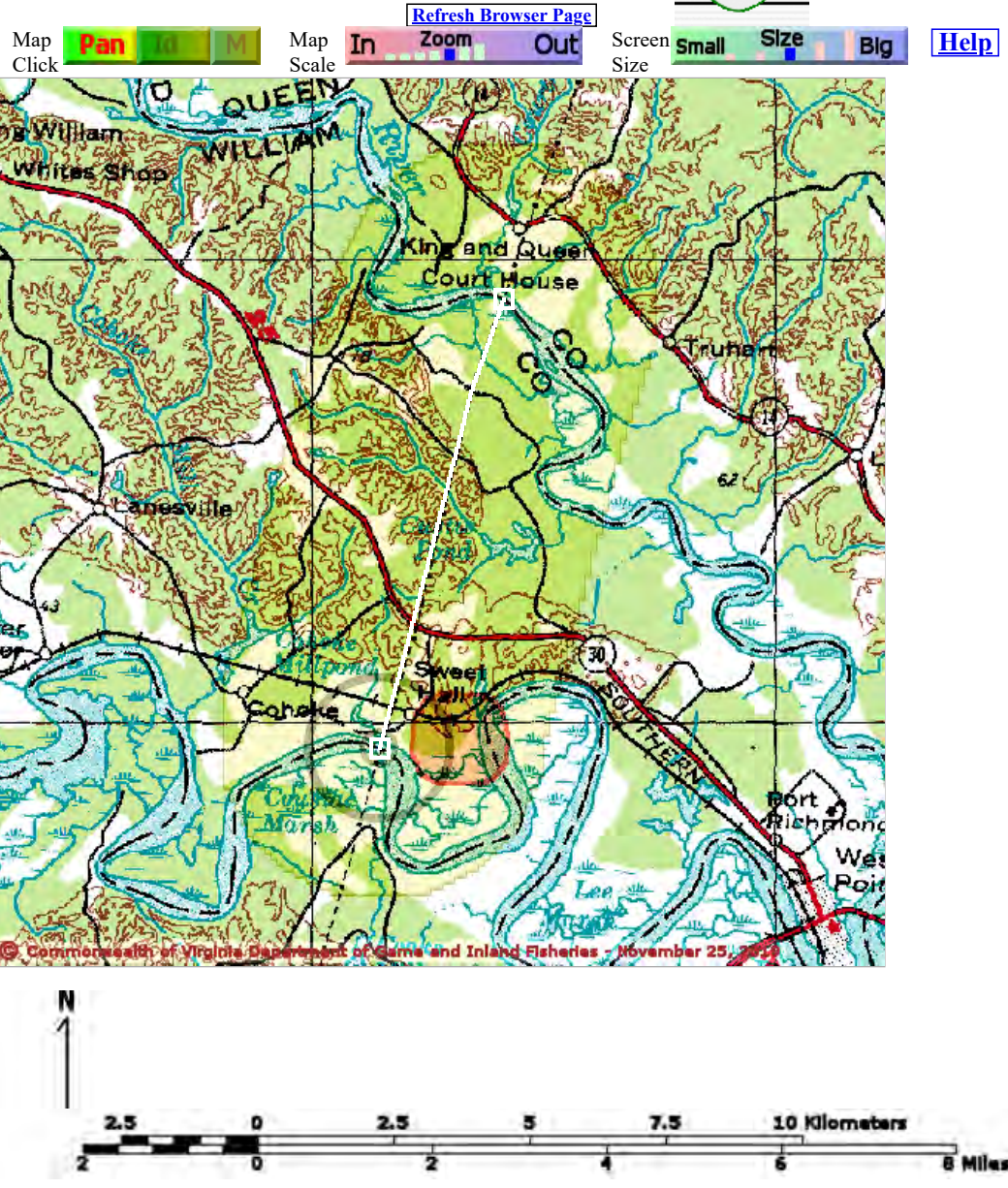
Topography

## Map Overlay Choices

Current List: Position, Search,  
SppObs

## Map Overlay Legend

-  Position Rings  
1 mile and 1/4  
mile at the  
Search Point
-  2 mile radius  
Search Area
-  Data  
Observation Site



Point of Search 37,34,04.5 -76,54,24.5

Map Location 37,36,43.3 -76,53,34.1

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 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](https://microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 323339 and top 4174056. Pixel size is 27. .  
 Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed  
 as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters  
 east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display  
 represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 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



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map assembled 2019-11-25 13:02:35 (qa/qc March 21, 2016 12:20 - tn=1003534.1 dist=3218

I )

\$poi=37.5679167 -76.9068056

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# Virginia Department of Game and Inland Fisheries

11/25/2019 1:02:00 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 1:02:00 PM

[Help](#)

Known or likely to occur within a **2 mile buffer** around line beginning **37.5679167**  
**-76.9068056**

in **097 King and Queen County, 101 King William County, 127 New Kent County, VA**  
 where (040379) [Sparrow, Henslow s](#) observed.

[View Map of  
Site Location](#)

[View Map of All Query Results from All  
Observation Tables](#) where Sparrow, Henslow s  
(040379) observed

### Species Observations where Sparrow, Henslow s (040379) observed

( 1 records , 1 Observation with  
Threatened or Endangered species )

[View Map of All Query Results](#)  
[Species Observations where Sparrow, Henslow s \(040379\) observed](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
<a href="#">664</a>	SppObs	Jan 1 1900		1	ST	I	<a href="#">Yes</a>

Displayed 1 Species Observations where Sparrow, Henslow s (040379) observed

\*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 Wildlife 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.

### Virginia Breeding Bird Atlas Blocks where Sparrow, Henslow s (040379) observed

( 1 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
55094	<a href="#">New Kent, CE</a>	49	ST	I	<a href="#">Yes</a>



Compiled on 11/25/2019, 1:02:00 PM 11003534.1 report=BOVA searchType= L dist= 3218 poi= 37.5679167 -76.9068056

**audit no. 1003534 11/25/2019 1:02:00 PM Virginia Fish and Wildlife Information Service**  
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$\frac{1}{2}$



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map assembled 2019-11-25 13:01:06 (qa/qc March 21, 2016 12:20 - tn=1003534.1 dist=3218

I )

\$poi=37.5679167 -76.9068056

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# Virginia Department of Game and Inland Fisheries

11/25/2019 1:00:03 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 1:00:03 PM

[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37.5679167 -76.9068056**

in **097 King and Queen County, 101 King William County, 127 New Kent County, VA** where (010032) [Sturgeon, Atlantic](#) observed.

[View Map of Site Location](#)

### Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

( 174 Reaches - displaying first 20 )

[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Mattaponi River (0115605.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0115730.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0115748.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0116202.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0118265.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0119418.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120000.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120019.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120159.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120195.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River</a>	FESE						<a href="#">Yes</a>



<a href="#">(0120470.)</a>		010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	
<a href="#">Mattaponi River (0120598.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121266.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121314.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121339.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121607.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122262.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122265.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122413.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0123524.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0123956.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124030.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124187.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

To view **All 174 Threatened and Endangered Waters records** [View 174](#)

\*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 Wildlife 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.

### Species Observations where Sturgeon, Atlantic (010032) observed

( 6 records , 6 Observations with  
Threatened or Endangered species )

[View Map of All Query Results](#)

[Species Observations where Sturgeon, Atlantic \(010032\) observed](#)



obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
<a href="#">630231</a>	SppObs	Oct 14 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630230</a>	SppObs	Aug 12 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630228</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630229</a>	SppObs	Jul 17 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630227</a>	SppObs	Jul 10 2015		1	FESE	I	<a href="#">Yes</a>
<a href="#">630226</a>	SppObs	Jul 9 2015		1	FESE	I	<a href="#">Yes</a>

Displayed 6 Species Observations where Sturgeon, Atlantic (010032) observed

### Habitat Predicted for Aquatic WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

( 1 Reach )

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

Stream Name	Tier Species						View Map
	Highest TE <sup>*</sup>	BOVA Code, Status <sup>*</sup> , Tier <sup>**</sup> , Common & Scientific Name					
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Pamunkey River (20801061)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

### Habitat Predicted for Terrestrial WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

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
YO36	<a href="#">Pamunkey River-Cohoke Mill Creek</a>	64	FESE	I
YO37	<a href="#">Pamunkey River-Mill Creek</a>	63	FESE	I

Compiled on 11/25/2019, 1:00:03 PM I1003534.1 report=BOVA searchType= L dist= 3218 poi= 37.5679167 -76.9068056

audit no. 1003534 11/25/2019 1:00:03 PM Virginia Fish and Wildlife Information Service  
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**VaFWIS Search Report** Compiled on 11/25/2019, 1:20:14 PM[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37,44,33.0 -76,50,47.5**  
in **057 Essex County, 097 King and Queen County, 101 King William County, VA**

[View Map of  
Site Location](#)

501 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 20) (19 species with Status\* or Tier I\*\* or Tier II\*\* )

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
060003	FESE	Ia	<a href="#">Wedgemussel, dwarf</a>	Alasmidonta heterodon		BOVA
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>	BOVA,TEWaters
050022	FTST	Ia	<a href="#">Bat, northern long-eared</a>	Myotis septentrionalis		BOVA
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis		BOVA
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050027	SE	Ia	<a href="#">Bat, tri-colored</a>	Perimyotis subflavus		BOVA
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii		BOVA
030067	CC	IIa	<a href="#">Terrapin, northern diamond-backed</a>	Malaclemys terrapin terrapin		BOVA,HU6
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata		BOVA,HU6
010174		Ia	<a href="#">Bass, Roanoke</a>	Ambloplites cavifrons		BOVA
040052		IIa	<a href="#">Duck, American black</a>	Anas rubripes		BOVA,HU6
040029		IIa	<a href="#">Heron, little blue</a>	Egretta caerulea caerulea		BOVA
040036		IIa	<a href="#">Night-heron, yellow-crowned</a>	Nyctanassa violacea violacea		BOVA
040181		IIa	<a href="#">Tern, common</a>	Sterna hirundo		HU6
040320		IIa	<a href="#">Warbler, cerulean</a>	Setophaga cerulea		BOVA,HU6
040140		IIa	<a href="#">Woodcock, American</a>	Scolopax minor		BOVA,HU6
060071		IIa	<a href="#">Lampmussel, yellow</a>	Lampsilis cariosa		BOVA
040203		IIb	<a href="#">Cuckoo, black-billed</a>	Coccyzus erythrophthalmus		BOVA
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Potential</a>	BOVA,Habitat,HU6
010131		IIIa	<a href="#">Eel, American</a>	Anguilla rostrata	<a href="#">Yes</a>	BOVA,SppObs,HU6

To view **All 501 species** [View 501](#)

\*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 Wildlife 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 (6 records)

[View Map of All Anadromous Fish Use Streams](#)

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE *	Highest Tier **	
C182	<a href="#">Mattaponi river</a>	Confirmed	6		IV	<a href="#">Yes</a>
P106	<a href="#">Mitchell Hill creek</a>	Potential	0			<a href="#">Yes</a>
P159	<a href="#">Unnamed Tr. 3 of Mattaponi</a>	Potential	0			<a href="#">Yes</a>
P40	<a href="#">Courthouse creek</a>	Potential	0			<a href="#">Yes</a>
P63	<a href="#">Gleason marsh</a>	Potential	0			<a href="#">Yes</a>
P65	<a href="#">Grass creek</a>	Potential	0			<a href="#">Yes</a>

#### Impediments to Fish Passage (2 records)

[View Map of All Fish Impediments](#)

ID	Name	River	View Map
144	<a href="#">DEW DAM</a>	CONTRARY SWAMP	<a href="#">Yes</a>
605	<a href="#">KING &amp; QUEEN COURTHOUSE DAM</a>	COURTHOUSE CREEK	<a href="#">Yes</a>

#### Colonial Water Bird Survey (4 records)

[View Map of All Query Results Colonial Water Bird Survey](#)

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE *	Highest Tier **	
<a href="#">Western Shore, King And Queen Court Hous, King and Queen</a>	1	May 1 2013	1			<a href="#">Yes</a>
<a href="#">Courthouse Creek</a>	1	May 2 2003	1			<a href="#">Yes</a>
<a href="#">Courthouse Creek North</a>	1	Jun 1 1993	1			<a href="#">Yes</a>
<a href="#">Courthouse Creek South</a>	1	Jun 1 1993	1			<a href="#">Yes</a>



## Displayed 4 Colonial Water Bird Survey

**Threatened and Endangered Waters** ( 57 Reaches - displaying first 20 )[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Mattaponi River (0115605.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0115730.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0116202.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0118265.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0119418.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120019.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120159.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120195.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120470.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121607.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122265.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122413.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122635.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124030.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124187.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124310.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124484.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon,</a>	Acipenser	<a href="#">Yes</a>



					<a href="#">Atlantic</a>	oxyrinchus	
<a href="#">Mattaponi River (0124574.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124803.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125409.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125870.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125871.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125904.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

To view All 57 Threatened and Endangered Waters records [View 57](#)

### Managed Trout Streams

N/A

### Bald Eagle Concentration Areas and Roosts

N/A

### Bald Eagle Nests ( 2 records )

[View Map of All Query Results  
Bald Eagle Nests](#)

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
<a href="#">KW0201</a>	17	Apr 19 2011	Unknown	<a href="#">Yes</a>
<a href="#">KW9901</a>	22	Apr 19 2011	Unknown	<a href="#">Yes</a>

Displayed 2 Bald Eagle Nests

### Species Observations ( 234 records - displaying first 20 )

[View Map of All Query Results  
Species Observations](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE <sup>*</sup>	Highest Tier <sup>**</sup>	
<a href="#">426555</a>	SppObs	Oct 28 2005	VCU - INSTAR	7		III	<a href="#">Yes</a>
<a href="#">426559</a>	SppObs	Oct 4 2003	VCU - INSTAR	9		III	<a href="#">Yes</a>
<a href="#">426554</a>	SppObs	Jul 17	VCU - INSTAR	16		III	<a href="#">Yes</a>



		2003				
<a href="#">425645</a>	SppObs	Nov 7 2001	VCU - INSTAR	9		III <a href="#">Yes</a>
<a href="#">425639</a>	SppObs	Nov 2 2001	VCU - INSTAR	11		III <a href="#">Yes</a>
<a href="#">340221</a>	SppObs	Sep 22 1998	K. Woodward, P. Wheeler, S. Chappell	16		III <a href="#">Yes</a>
<a href="#">340270</a>	SppObs	Sep 9 1998	K. Woodward, P. Wheeler, S. Chappell	11		III <a href="#">Yes</a>
<a href="#">425648</a>	SppObs	Oct 24 1996	VCU - INSTAR	13		III <a href="#">Yes</a>
<a href="#">54571</a>	SppObs	Oct 24 1996	DR. GREG GARMAN, VIRGINIA COMMONWEALTH UNIVERSITY	13		III <a href="#">Yes</a>
<a href="#">365396</a>	SppObs	Jan 1 1900		1		III <a href="#">Yes</a>
<a href="#">604729</a>	SppObs	May 5 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	4		IV <a href="#">Yes</a>
<a href="#">603045</a>	SppObs	Apr 28 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	4		IV <a href="#">Yes</a>
<a href="#">607579</a>	SppObs	Apr 28 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	5		IV <a href="#">Yes</a>
<a href="#">604416</a>	SppObs	Apr 28 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	5		IV <a href="#">Yes</a>
<a href="#">606470</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	4		IV <a href="#">Yes</a>
<a href="#">601734</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	3		IV <a href="#">Yes</a>
<a href="#">606510</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	4		IV <a href="#">Yes</a>
<a href="#">601780</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	5		IV <a href="#">Yes</a>
<a href="#">602838</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	3		IV <a href="#">Yes</a>
<a href="#">608069</a>	SppObs	Apr 21 2008	Craig; Bruce  Kathy; Dillow  Dave; Wong  William; Burton	3		IV <a href="#">Yes</a>

Displayed 20 Species Observations

Selected 234 Observations [View all 234 Species Observations](#)

### Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

### Habitat Predicted for Terrestrial WAP Tier I & II Species

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map



040105	Ilb	<a href="#">Rail, king.</a>	Rallus elegans	<a href="#">Yes</a>
--------	-----	-----------------------------	----------------	---------------------

### Virginia Breeding Bird Atlas Blocks ( 8 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE *	Highest Tier **	
56114	<a href="#">Dunnsville, CE</a>	1			<a href="#">Yes</a>
56116	<a href="#">Dunnsville, SE</a>	13		IV	<a href="#">Yes</a>
55104	<a href="#">King and Queen Court House, CE</a>	1			<a href="#">Yes</a>
55102	<a href="#">King and Queen Court House, NE</a>	16		III	<a href="#">Yes</a>
55106	<a href="#">King and Queen Court House, SE</a>	39		III	<a href="#">Yes</a>
55116	<a href="#">Millers Tavern, SE</a>	34		III	<a href="#">Yes</a>
55092	<a href="#">New Kent, NE</a>	1			<a href="#">Yes</a>
56105	<a href="#">Truhart, SW</a>	10		III	<a href="#">Yes</a>

### Public Holdings:

N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
057	<a href="#">Essex</a>	380	FESE	I
097	<a href="#">King and Queen</a>	397	FESE	I
101	<a href="#">King William</a>	406	FESE	I

### USGS 7.5' Quadrangles:

King and Queen Court House  
 Millers Tavern  
 Truhart  
 Dunnsville

### 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
CB06	<a href="#">Dragon Swamp-Dragon Run</a>	57		II
CB07	<a href="#">Exol Swamp</a>	54		II
CB08	<a href="#">Dragon Swamp-Timber Branch Swamp</a>	59	SS	II
RA61	<a href="#">Piscataway Creek</a>	55		II
YO58	<a href="#">Garnetts Creek</a>	55		II



YO59	<a href="#">Mattaponi River-Courthouse Creek</a>	57	SS	II
YO60	<a href="#">Mattaponi River-Heartquake Creek</a>	58	SS	II

Compiled on 11/25/2019, 1:20:14 PM I1003549.0 report=all searchType= L dist= 3218 poi= 37,44,33.0 -76,50,47.5 siteDD= 37.6561388 -76.8787776;37.7758611 -76.8302304;37.7955611 -76.8306582  
PixelSize=64; Anadromous=0.083261; BBA=0.146245; BECAR=0.048645; Bats=0.045683; Buffer=0.497107; County=0.161389; HU6=0.25041; Impediments=0.051592; Init=0.566856;  
PublicLands=0.078174; Quad=0.137022; SppObs=0.649941; TEWaters=0.115297; TierReaches=0.06684; TierTerrestrial=0.179626; Total=2.9543; Tracking\_BOVA=0.160447; Trout=0.070775; huva=0.123236



## Site Location

37,44,33.0 -76,50,47.5  
is the Search Point

## Show Position Rings

☒ Yes ☐ No

4 miles and 1 mile at the  
Search Point

## Show Search Area

☒ Yes ☐ No

2 Search distance miles  
buffer

Display Search Point is  
at center not at map center

Base Map [Choices](#)

Topography

Map Overlay [Choices](#)

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

## Map Overlay Legend

## T &amp; E Waters

Federal

State

Predicted Habitat  
WAP Tier I & II

Aquatic

Terrestrial

## Trout Waters

Class I - IV

Class V - VI

## Anadromous Fish Reach

Confirmed

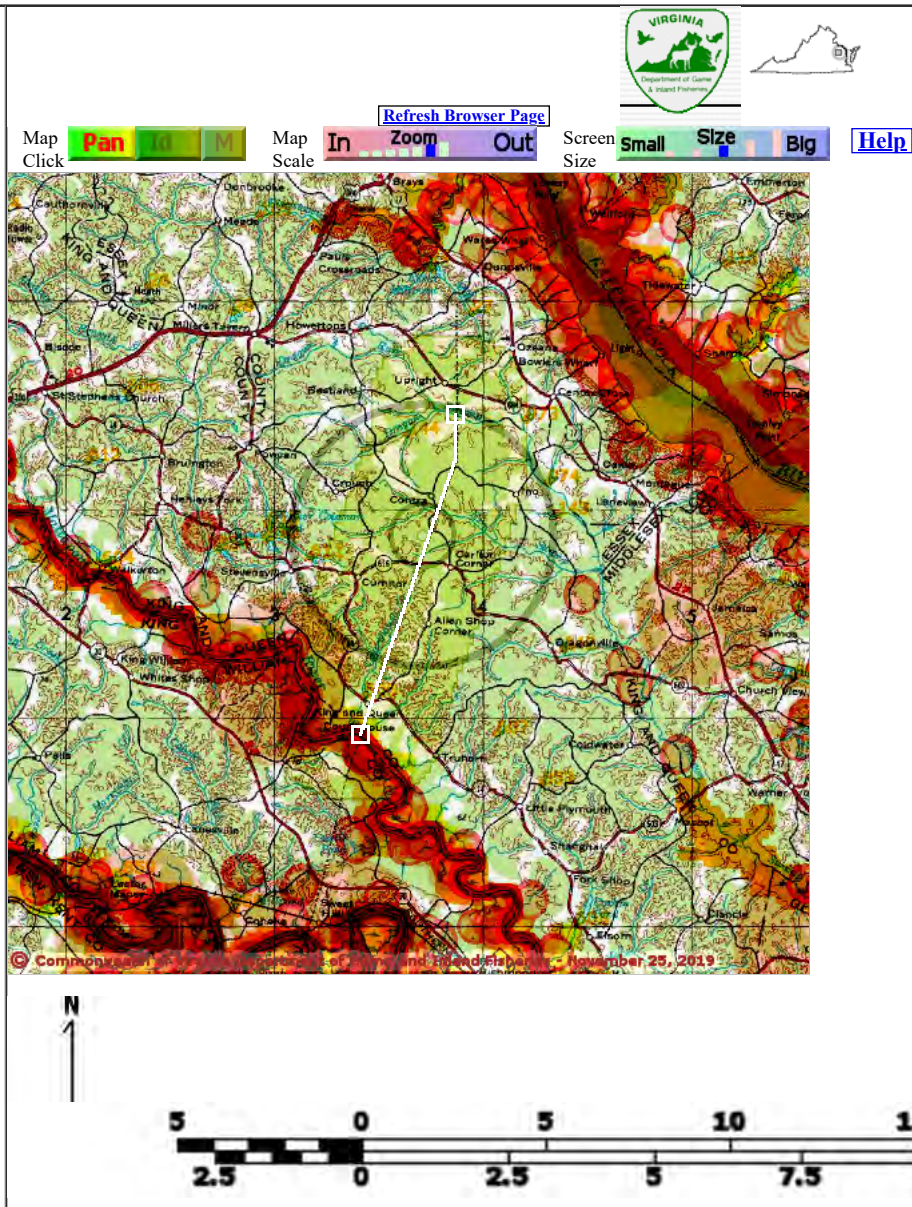
Potential

## 322 Impediment

Position Rings  
4 miles and 1  
mile at the  
Search Point

2 mile radius  
Search Area

Bald Eagle  
Concentration Areas  
and Roosts



Point of Search 37,44,33.0 -76,50,47.5

Map Location 37,43,32.9 -76,51,14.2

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 1:250,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 317417 and top 4196213. Pixel size is 36. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 38400 meters east to west by 38400 meters north to south for a total of 1474.5 square kilometers. The map display represents 126005 feet east to west by 126005 feet north to south for a total of 569.5 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 acquired 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 Game and Inland Fisheries.

map assembled 2019-11-25 13:31:06 (qa/qc March 21, 2016 12:20 - tn=1003549.0 dist=3218

1)

Spoi=37.7425000 -76.8465278







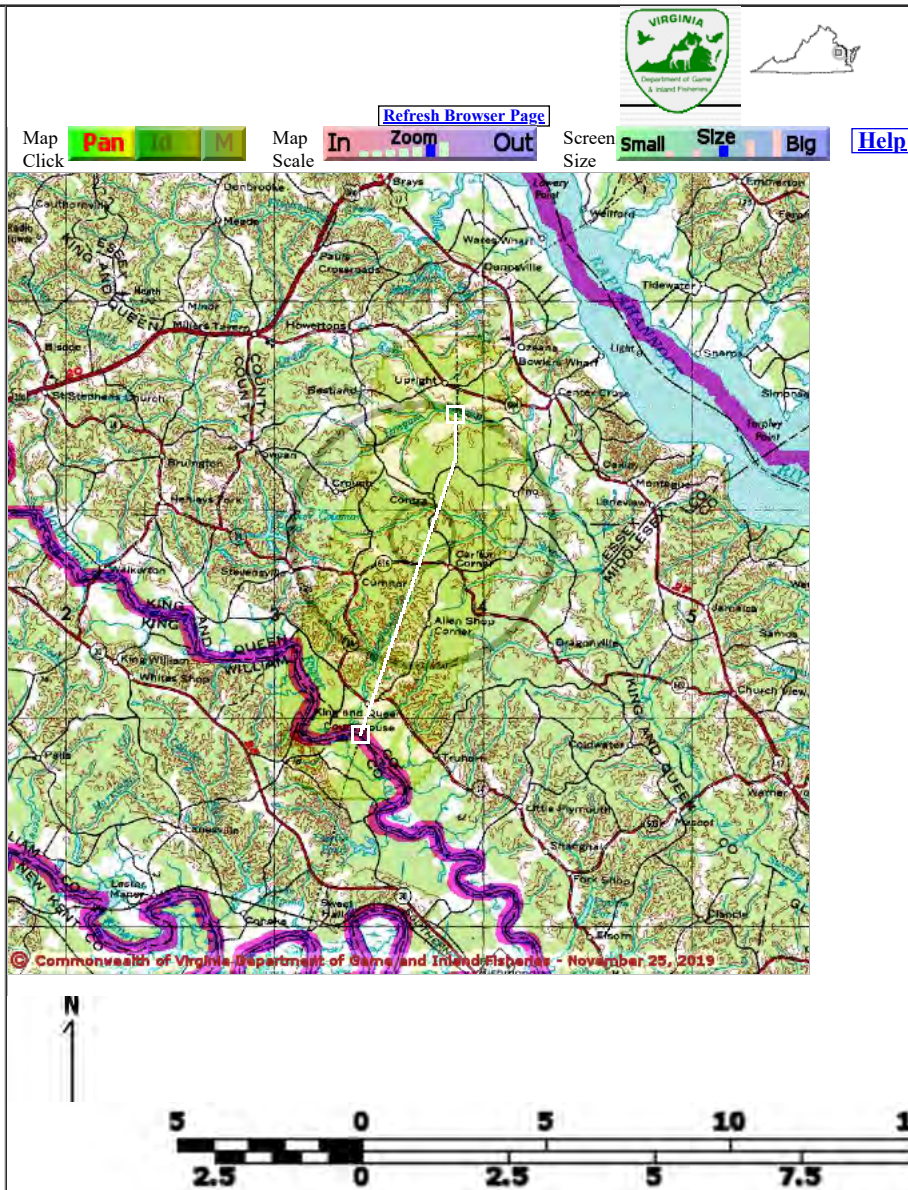
**Threatened and  
Endangered Waters  
where Sturgeon,  
Atlantic (010032)  
observed**37,44,33.0 -76,50,47.5  
is the Search Point**Show Position Rings**☒ Yes ☐ No4 miles and 1 mile at the  
Search Point**Show Search Area**☒ Yes ☐ No2 Search distance miles  
bufferDisplay Search Point is  
at center not at map center**Base Map** [Choices](#)

Topography

**Map Overlay** [Choices](#)Current List: Position, Search,  
TEWaters**Map Overlay Legend****T & E Waters**

Federal

State

Position Rings  
4 miles and 1  
mile at the  
Search Point2 mile radius  
Search Area

Point of Search 37,44,33.0 -76,50,47.5

Map Location 37,43,32.9 -76,51,14.2

Select **Coordinate System:** ☒ Degrees,Minutes,Seconds Latitude - Longitude☐ Decimal Degrees Latitude - Longitude☐ Meters UTM NAD83 East North Zone☐ Meters UTM NAD27 East North ZoneBase Map source: USGS 1:250,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 317417 and top 4196213. Pixel size is 36. .  
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed  
as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 38400 meters  
east to west by 38400 meters north to south for a total of 1474.5 square kilometers. The map  
display represents 126005 feet east to west by 126005 feet north to south for a total of 569.5 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 acquired 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 Game and Inland  
Fisheries.

map assembled 2019-11-25 13:32:46 (qa/qc March 21, 2016 12:20 - tn=1003549.1 dist=3218

1)

Spoi=37.7425000 -76.8465278









# Virginia Department of Game and Inland Fisheries

11/25/2019 1:32:15 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 1:32:15 PM

[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37.7425000 -76.8465278**

in **057 Essex County, 097 King and Queen County, 101 King William County, VA** where (010032) [Sturgeon, Atlantic](#) observed.

[View Map of Site Location](#)

### Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

( 57 Reaches - displaying first 20 )

[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Mattaponi River (0115605.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0115730.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0116202.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0118265.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0119418.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120019.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120159.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120195.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0120470.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0121607.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River</a>	FESE						<a href="#">Yes</a>



<a href="#">(0122265.)</a>		010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	
<a href="#">Mattaponi River (0122413.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0122635.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124030.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124187.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124310.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124484.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124574.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0124803.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125409.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125870.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125871.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Mattaponi River (0125904.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

To view **All 57 Threatened and Endangered Waters records** [View 57](#)

\*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 Wildlife 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.

Compiled on 11/25/2019, 1:32:15 PM I1003549.1 report=BOVA searchType= L dist= 3218 poi= 37.7425000 -76.8465278



**VaFWIS Search Report** Compiled on 11/25/2019, 1:40:35 PM[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37,47,43.9 -76,49,50.2**  
in **057 Essex County, 097 King and Queen County, 159 Richmond County, VA**

[View Map of  
Site Location](#)

479 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 20) (16 species with Status\* or Tier I\*\* or Tier II\*\* )

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>	BOVA,TEWaters,Habitat,SppObs,HU6
050022	FTST	Ia	<a href="#">Bat, northern long-eared</a>	Myotis septentrionalis		BOVA
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis	<a href="#">Potential</a>	BOVA,Habitat
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050027	SE	Ia	<a href="#">Bat, tri- colored</a>	Perimyotis subflavus		BOVA
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Potential</a>	Habitat
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata		BOVA
040052		IIa	<a href="#">Duck, American black</a>	Anas rubripes		BOVA,HU6
040029		IIa	<a href="#">Heron, little blue</a>	Egretta caerulea caerulea		BOVA
040036		IIa	<a href="#">Night-heron, yellow- crowned</a>	Nyctanassa violacea violacea		BOVA
040181		IIa	<a href="#">Tern, common</a>	Sterna hirundo		HU6
040320		IIa	<a href="#">Warbler, cerulean</a>	Setophaga cerulea		BOVA,HU6
040140		IIa	<a href="#">Woodcock, American</a>	Scolopax minor		BOVA,HU6
060071		IIa	<a href="#">Lampmussel, yellow</a>	Lampsilis cariosa		BOVA
040203		IIb	<a href="#">Cuckoo, black-billed</a>	Coccyzus erythrophthalmus	<a href="#">Potential</a>	BOVA,BBA
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Potential</a>	BOVA,Habitat,BBA,HU6



010131		IIIa	<a href="#">Eel, American</a>	Anguilla rostrata	<a href="#">Yes</a>	BOVA,SppObs,HU6
020005		IIIa	<a href="#">Frog, carpenter</a>	Lithobates virgatipes		BOVA
030068		IIIa	<a href="#">Turtle, woodland box</a>	Terrapene carolina carolina	<a href="#">Yes</a>	BOVA,SppObs,HU6
040037		IIIa	<a href="#">Bittern, least</a>	Ixobrychus exilis exilis		BOVA,HU6

To view **All 479 species** [View 479](#)

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

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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** ( 6 records )

[View Map of All Anadromous Fish Use Streams](#)

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE*	Highest Tier**	
C46	<a href="#">Mill creek (Piscataway Creek)</a>	Confirmed	1		IV	<a href="#">Yes</a>
C69	<a href="#">Rappahannock river 1</a>	Confirmed	6		IV	<a href="#">Yes</a>
C74	<a href="#">Totuskey Creek</a>	Confirmed	4		IV	<a href="#">Yes</a>
P120	<a href="#">Pecks creek</a>	Potential	0			<a href="#">Yes</a>
P131	<a href="#">Richardson creek</a>	Potential	0			<a href="#">Yes</a>
P149	<a href="#">Taylors creek</a>	Potential	0			<a href="#">Yes</a>

**Impediments to Fish Passage** ( 4 records )

[View Map of All Fish Impediments](#)

ID	Name	River	View Map
88	<a href="#">DELAND DAM</a>	TR-PECKS CREEK	<a href="#">Yes</a>
144	<a href="#">DEW DAM</a>	CONTRARY SWAMP	<a href="#">Yes</a>
24	<a href="#">ESSEX MILL DAM</a>	MILL CREEK	<a href="#">Yes</a>



27	<a href="#">WARE DAM</a>	TR-MILL CREEK	<a href="#">Yes</a>
----	--------------------------	---------------	---------------------

**Colonial Water Bird Survey** ( 3 records )

[View Map of All Query Results](#)  
[Colonial Water Bird Survey.](#)

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE *	Highest Tier **	
<a href="#">Western Shore, Tappahannock, Essex</a>	1	May 10 2013	1			<a href="#">Yes</a>
<a href="#">Totuskey Creek</a>	1	May 20 2003	1			<a href="#">Yes</a>
<a href="#">Lowery Point</a>	1	May 9 2003	1			<a href="#">Yes</a>

Displayed 3 Colonial Water Bird Survey

**Threatened and Endangered Waters** ( 10 Reaches )

[View Map of All](#)  
[Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Rappahannock River (041107.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (048354.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (049902.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052146.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052519.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054181.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054321.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055082.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055364.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (056953.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

**Managed Trout Streams**



N/A

**Bald Eagle Concentration Areas and Roosts**

N/A

**Bald Eagle Nests** ( 34 records )[View Map of All Query Results  
Bald Eagle Nests](#)

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
<a href="#">ES0102</a>	4	Jan 1 2003	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0301</a>	14	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES0302</a>	16	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES0401</a>	8	Mar 12 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">ES0402</a>	15	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES0403</a>	7	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0502</a>	7	Mar 12 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">ES0601</a>	5	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0602</a>	9	Apr 20 2010	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0802</a>	8	Apr 22 2011	UNKNOWN	<a href="#">Yes</a>
<a href="#">ES0901</a>	6	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES0902</a>	4	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES8701</a>	1	Jan 1 1987	HISTORIC	<a href="#">Yes</a>
<a href="#">ES8801</a>	2	Jan 1 1989	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9001</a>	2	Jan 1 1991	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9303</a>	16	Jan 1 2002	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9503</a>	2	Apr 29 1995	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9504</a>	3	Apr 29 1995	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9901</a>	5	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0004</a>	3	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0508</a>	6	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0509</a>	14	Apr 22 2011	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0606</a>	6	Mar 13 2008	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0607</a>	3	Apr 24 2006	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0811</a>	8	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0904</a>	6	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0905</a>	4	Apr 20 2010	HISTORIC	<a href="#">Yes</a>
<a href="#">RI1103</a>	2	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI1104</a>	2	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI8902</a>	22	Apr 28 2007	HISTORIC	<a href="#">Yes</a>



<a href="#">R19004</a>	14	May 1 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">R19106</a>	11	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">R19504</a>	4	Apr 25 1996	HISTORIC	<a href="#">Yes</a>
<a href="#">R19902</a>	11	Apr 24 2006	HISTORIC	<a href="#">Yes</a>

Displayed 34 Bald Eagle Nests

### Species Observations

( 48 records - displaying first 20 , 5  
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 <sup>*</sup>	Highest Tier <sup>**</sup>	
<a href="#">63002</a>	SppObs	Apr 26 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62952</a>	SppObs	Apr 18 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62968</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62969</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62949</a>	SppObs	Apr 7 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">425981</a>	SppObs	Jul 28 2006	VCU - INSTAR	3		III	<a href="#">Yes</a>
<a href="#">425645</a>	SppObs	Nov 7 2001	VCU - INSTAR	9		III	<a href="#">Yes</a>
<a href="#">340270</a>	SppObs	Sep 9 1998	K. Woodward, P. Wheeler, S. Chappell	11		III	<a href="#">Yes</a>
<a href="#">425648</a>	SppObs	Oct 24 1996	VCU - INSTAR	13		III	<a href="#">Yes</a>
<a href="#">54571</a>	SppObs	Oct 24 1996	DR. GREG GARMAN, VIRGINIA COMMONWEALTH UNIVERSITY	13		III	<a href="#">Yes</a>
<a href="#">50794</a>	SppObs	Apr 23 1996	Dr. Greg Garman, VCU	13		III	<a href="#">Yes</a>
<a href="#">425937</a>	SppObs	Apr 23 1996	VCU - INSTAR	13		III	<a href="#">Yes</a>
<a href="#">425936</a>	SppObs	Feb 27 1996	VCU - INSTAR	16		III	<a href="#">Yes</a>
<a href="#">62538</a>	SppObs	Jan 1 1996	Steve McNich and Greg Garman, VCU	16		III	<a href="#">Yes</a>
<a href="#">365396</a>	SppObs	Jan 1 1900		1		III	<a href="#">Yes</a>
<a href="#">55539</a>	SppObs	Sep 9 1998	K. WOODWARD, A. P. WHEELER, AND S. CHAPPELL, VDGIF	11		IV	<a href="#">Yes</a>
<a href="#">54574</a>	SppObs	Mar 11 1997	DR. GREG GARMAN, VIRGINIA COMMONWEALTH UNIVERSITY	11		IV	<a href="#">Yes</a>



<a href="#">340328</a>	SppObs	Sep 3 1996	ADAMS, GONZALES	10		IV	<a href="#">Yes</a>
<a href="#">50327</a>	SppObs	Mar 27 1996	Chris Drummond 410-827-5235	6		IV	<a href="#">Yes</a>
<a href="#">50324</a>	SppObs	Mar 22 1996	Chris Drummond 410-827-5235	3		IV	<a href="#">Yes</a>

Displayed 20 Species Observations

Selected 48 Observations [View all 48 Species Observations](#)

Habitat Predicted for Aquatic WAP Tier I & II Species ( 1 Reach )

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

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

Habitat Predicted for Terrestrial WAP Tier I & II Species ( 3 Species )

[View Map of Combined Terrestrial Habitat Predicted for 3 WAP Tier I & II Species Listed Below](#)

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis	<a href="#">Yes</a>
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Yes</a>
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Yes</a>

Virginia Breeding Bird Atlas Blocks ( 7 records )

[View Map of All Query Results Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
56114	<a href="#">Dunnsville, CE</a>	1			<a href="#">Yes</a>
56112	<a href="#">Dunnsville, NE</a>	2			<a href="#">Yes</a>
56116	<a href="#">Dunnsville, SE</a>	13		IV	<a href="#">Yes</a>
57125	<a href="#">Haynesville, SW</a>	3		IV	<a href="#">Yes</a>
57111	<a href="#">Morattico, NW</a>	2			<a href="#">Yes</a>
56126	<a href="#">Tappahannock, SE</a>	53		II	<a href="#">Yes</a>
56125	<a href="#">Tappahannock, SW</a>	29		II	<a href="#">Yes</a>

Public Holdings:



N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
057	<a href="#">Essex</a>	380	FESE	I
097	<a href="#">King and Queen</a>	397	FESE	I
159	<a href="#">Richmond</a>	346	FESE	I

**USGS 7.5' Quadrangles:**

Dunnsville  
Tappahannock  
Morattico  
Haynesville

**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
CB06	<a href="#">Dragon Swamp-Dragon Run</a>	57		II
CB07	<a href="#">Exol Swamp</a>	54		II
RA61	<a href="#">Piscataway Creek</a>	55		II
RA62	<a href="#">Rappahannock River-Little Carter Creek</a>	54	FESE	I
RA64	<a href="#">Totuskey Creek</a>	58		II
RA66	<a href="#">Rappahannock River-Cedar Creek</a>	51	FESE	I

Compiled on 11/25/2019, 1:40:35 PM 11003553.0 report=all searchType=L dist= 3218 poi= 37,47,43.9 -76,49,50.2 siteDD= 37.7955555 -76.8306387;37.8431361 -76.8316637;37.8600166 -76.8006887;37.8640166 -76.7997498;37.8751055 -76.7733165;

PixelSize=64; Anadromous=0.066537; BBA=0.0891; BECAR=0.041673; Bats=0.034374; Buffer=0.398157; County=0.200032; HU6=0.170424; Impediments=0.060129; Init=0.462913; PublicLands=0.055382; Quad=0.112107; SppObs=0.617009; TEWaters=0.067693; TierReaches=0.167974; TierTerrestrial=0.135296; Total=2.656623; Tracking\_BOVA=0.189772; Trout=0.052234; huva=0.118239



**Site Location**

37,47,43.9 -76,49,50.2  
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  
buffer

Display Search Point is  
at center not at map center

**Base Map [Choices](#)**

Topography

**Map Overlay [Choices](#)**

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

**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

**J32 Impediment**

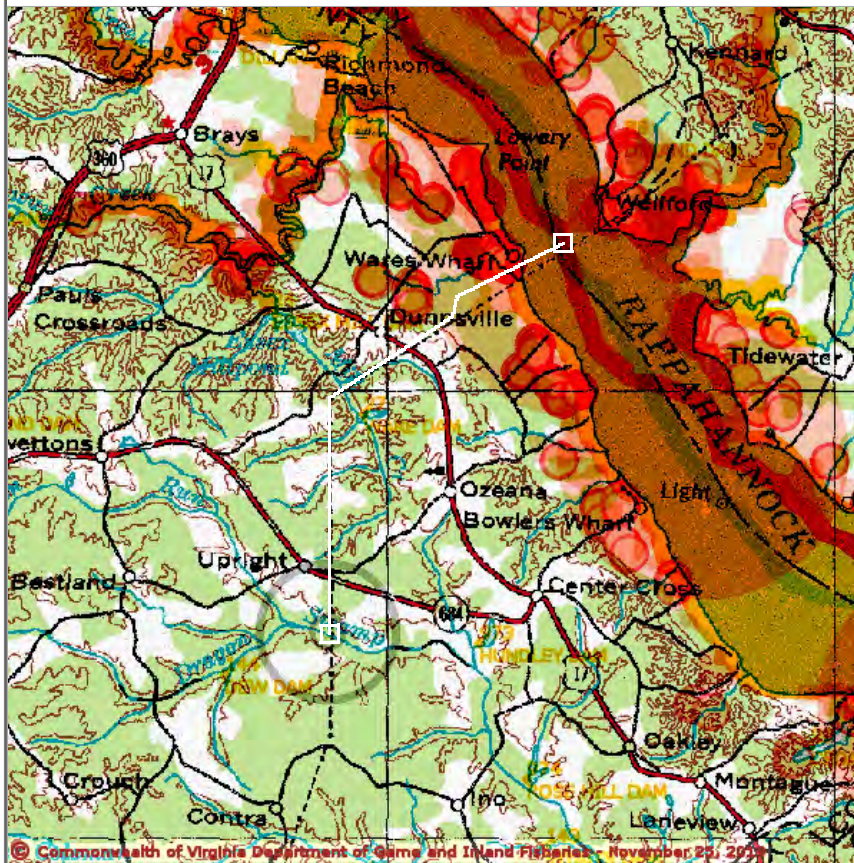
Position Rings  
1 mile and 1/4  
mile at the  
Search Point

2 mile radius  
Search Area

Bald Eagle  
Concentration Areas  
and Roosts

Map Click **Pan** **Zoom** **Out** Map Scale **In** **Zoom** **Out** Screen Size **Small** **Size** **Big** [Help](#)

[Refresh Browser Page](#)



Point of Search 37,47,43.9 -76,49,50.2

Map Location 37,50,07.4 -76,48,13.8

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 1:250,000 topographic maps (see [microsoft.terraserver-usa.com](http://microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 331670 and top 4198685. Pixel size is 25. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 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 acquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.

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map assembled 2019-11-25 14:26:36 (qa/qc March 21, 2016 12:20 - tn=1003553.0 dist=3218  
I)  
\$poi=37.7955278 -76.8306111



**Predicted Habitat  
(040379) Sparrow,  
Henslow's**37,47,43.9 -76,49,50.2  
is the Search Point

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

**Show Position Rings**☒ Yes ☐ No1 mile and 1/4 mile at the  
Search Point**Show Search Area**☒ Yes ☐ No2 Search distance miles  
buffer

Display at center	Search Point is not at map center
----------------------	--------------------------------------

**Base Map [Choices](#)**


Topography

**Map Overlay [Choices](#)**Current List: Position, Search,  
Observation**Map Overlay Legend****Predicted Habitat  
WAP Tier I & II**

Aquatic

Terrestrial


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


**2 mile radius  
Search Area**

**Data  
Observation Site**


Point of Search 37,47,43.9 -76,49,50.2

Map Location 37,50,07.4 -76,48,13.8

Select **Coordinate System:** ☒ Degrees, Minutes, Seconds Latitude - Longitude☐ Decimal Degrees Latitude - Longitude☐ Meters UTM NAD83 East North Zone☐ Meters UTM NAD27 East North ZoneBase Map source: USGS 1:250,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 331670 and top 4198685. Pixel size is 25. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

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map assembled 2019-11-25 14:31:46 (qa/qc March 21, 2016 12:20 - tn=1003553.1 dist=3218  
I)  
\$poi=37.7955278 -76.8306111\$query=select BOVA from  
vafwis\_tables.dbo.cvTierTerrestrial where BOVA in ('040379')





# Virginia Department of Game and Inland Fisheries

11/25/2019 2:31:17 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 2:31:17 PM

[Help](#)

Observations reported or potential habitat occurs within a **2 mile buffer around line beginning 37.7955278 -76.8306111**  
in **057 Essex County, 097 King and Queen County, 159 Richmond County, VA**  
where (040379) [Sparrow, Henslow s](#) observed.

[View Map of Site Location](#)

**Habitat Predicted for Aquatic WAP Tier I & II Species where Sparrow, Henslow s (040379) observed**

N/A

**Habitat Predicted for Terrestrial WAP Tier I & II Species where Sparrow, Henslow s (040379) observed**

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Yes</a>

Compiled on 11/25/2019, 2:31:17 PM 11003553.1 report=BOVA searchType= L dist= 3218 poi= 37.7955278 -76.8306111

audit no. 1003553 11/25/2019 2:31:17 PM Virginia Fish and Wildlife Information Service  
© 1998-2019 Commonwealth of Virginia Department of Game and Inland Fisheries



**Predicted Habitat  
(040110) Rail, eastern  
black**37,47,43.9 -76,49,50.2  
is the Search Point

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

**Show Position Rings**☒ Yes ☐ No1 mile and 1/4 mile at the  
Search Point**Show Search Area**☒ Yes ☐ No2 Search distance miles  
buffer

Display at center	Search Point is not at map center
----------------------	--------------------------------------

**Base Map [Choices](#)**


Topography

**Map Overlay [Choices](#)**Current List: Position, Search,  
Observation**Map Overlay Legend****Predicted Habitat  
WAP Tier I & II**

Aquatic

Terrestrial


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


**2 mile radius  
Search Area**

**Data  
Observation Site**


Point of Search 37,47,43.9 -76,49,50.2

Map Location 37,50,07.4 -76,48,13.8

Select **Coordinate System:** ☒ Degrees, Minutes, Seconds Latitude - Longitude☐ Decimal Degrees Latitude - Longitude☐ Meters UTM NAD83 East North Zone☐ Meters UTM NAD27 East North ZoneBase Map source: USGS 1:250,000 topographic maps (see [microsoft.terraserver-usa.com](http://microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 331670 and top 4198685. Pixel size is 25. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

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map assembled 2019-11-25 14:30:25 (qa/qc March 21, 2016 12:20 - tn=1003553.1 dist=3218  
I)  
\$poi=37.7955278 -76.8306111\$query=select BOVA from  
vafwis\_tables.dbo.cvTierTerrestrial where BOVA in ('040110')





# Virginia Department of Game and Inland Fisheries

11/25/2019 2:29:53 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 2:29:53 PM

[Help](#)

Observations reported or potential habitat occurs within a **2 mile buffer around line beginning 37.7955278 -76.8306111**  
in **057 Essex County, 097 King and Queen County, 159 Richmond County, VA**  
where (040110) [Rail, eastern black](#) observed.

[View Map of Site Location](#)

**Habitat Predicted for Aquatic WAP Tier I & II Species where Rail, eastern black (040110) observed**

N/A

**Habitat Predicted for Terrestrial WAP Tier I & II Species where Rail, eastern black (040110) observed**

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis	<a href="#">Yes</a>

Compiled on 11/25/2019, 2:29:53 PM 11003553.1 report=BOVA searchType= L dist= 3218 poi= 37.7955278 -76.8306111

audit no. 1003553 11/25/2019 2:29:53 PM Virginia Fish and Wildlife Information Service  
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# Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

37,47,43.9 -76,49,50.2  
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 buffer

Display Search Point is  
at center not at map center

## Base Map Choices

Topography

## Map Overlay Choices

Current List: Position, Search, TEWaters

## Map Overlay Legend

### T & E Waters

Federal

State

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

2 mile radius  
Search Area



Point of Search 37,47,43.9 -76,49,50.2

Map Location 37,50,07.4 -76,48,13.8

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 1:250,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 331670 and top 4198685. Pixel size is 25. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

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map assembled 2019-11-25 14:29:14 (qa/qc March 21, 2016 12:20 - tn=1003553.1 dist=3218  
I)  
\$poi=37.7955278 -76.8306111





# Virginia Department of Game and Inland Fisheries

11/25/2019 2:28:38 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 2:28:38 PM

[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37.7955278 -76.8306111**  
in **057 Essex County, 097 King and Queen County, 159 Richmond County, VA**  
where (010032) [Sturgeon, Atlantic](#) observed.

[View Map of Site Location](#)

### Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

( 10 Reaches )

[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Rappahannock River (041107.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (048354.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (049902.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052146.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052519.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054181.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054321.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055082.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055364.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (056953.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



\*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 Wildlife 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.

## Species Observations where Sturgeon, Atlantic (010032) observed

( 5 records , 5 Observations with  
Threatened or Endangered species )

[View Map of All Query Results](#)  
[Species Observations where Sturgeon, Atlantic \(010032\) observed](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
<a href="#">63002</a>	SppObs	Apr 26 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62952</a>	SppObs	Apr 18 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62968</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62969</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62949</a>	SppObs	Apr 7 1997	USFWS	1	FESE	I	<a href="#">Yes</a>

Displayed 5 Species Observations where Sturgeon, Atlantic (010032) observed

## Habitat Predicted for Aquatic WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

( 1 Reach )

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

Stream Name	Tier Species						View Map
	Highest TE <sup>*</sup>	BOVA Code, Status <sup>*</sup> , Tier <sup>**</sup> , Common & Scientific Name					
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

## Habitat Predicted for Terrestrial WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

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
RA62	<a href="#">Rappahannock River-Little Carter Creek</a>	54	FESE	I
RA66	<a href="#">Rappahannock River-Cedar Creek</a>	51	FESE	I

Compiled on 11/25/2019, 2:28:38 PM I1003553.1 report=BOVA searchType= L dist= 3218 poi= 37.7955278 -76.8306111

audit no. 1003553 11/25/2019 2:28:38 PM Virginia Fish and Wildlife Information Service  
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**VaFWIS Search Report** Compiled on 11/25/2019, 3:30:04 PM[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37.9088611 -76.7358889**  
in **057 Essex County, 159 Richmond County, VA**

[View Map of  
Site Location](#)

431 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 20) (16 species with Status\* or Tier I\*\* or Tier II\*\*)

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>	BOVA,TEWaters,Habitat,SppObs,HU6
050022	FTST	Ia	<a href="#">Bat, northern long-eared</a>	Myotis septentrionalis		BOVA
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis	<a href="#">Potential</a>	BOVA,Habitat
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050027	SE	Ia	<a href="#">Bat, tri- colored</a>	Perimyotis subflavus		BOVA
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Potential</a>	Habitat
030067	CC	IIa	<a href="#">Terrapin, northern diamond- backed</a>	Malaclemys terrapin terrapin		HU6
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata		BOVA
040052		IIa	<a href="#">Duck, American black</a>	Anas rubripes		BOVA,HU6
040029		IIa	<a href="#">Heron, little blue</a>	Egretta caerulea caerulea		BOVA
040036		IIa	<a href="#">Night- heron, yellow- crowned</a>	Nyctanassa violacea violacea		BOVA
040181		IIa	<a href="#">Tern, common</a>	Sterna hirundo		HU6
040320		IIa	<a href="#">Warbler, cerulean</a>	Setophaga cerulea		BOVA,HU6
040140		IIa	<a href="#">Woodcock, American</a>	Scolopax minor		BOVA,HU6



040203		IIb	<a href="#">Cuckoo, black-billed</a>	Coccyzus erythrophthalmus	<a href="#">Potential</a>	BOVA,BBA
040105		IIb	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Potential</a>	BOVA,Habitat,HU6
010131		IIIa	<a href="#">Eel, American</a>	Anguilla rostrata	<a href="#">Yes</a>	BOVA,SppObs,HU6
030068		IIIa	<a href="#">Turtle, woodland box</a>	Terrapene carolina carolina		BOVA,HU6
040037		IIIa	<a href="#">Bittern, least</a>	Ixobrychus exilis exilis		BOVA,HU6
040100		IIIa	<a href="#">Bobwhite, northern</a>	Colinus virginianus	<a href="#">Potential</a>	BOVA,BBA,HU6

To view **All 431 species** [View 431](#)

\*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 Wildlife 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 ( 6 records )

[View Map of All Anadromous Fish Use Streams](#)

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE <sup>*</sup>	Highest Tier <sup>**</sup>	
C40	<a href="#">Little Totuskey creek</a>	Confirmed	1			<a href="#">Yes</a>
C69	<a href="#">Rappahannock river 1</a>	Confirmed	6		IV	<a href="#">Yes</a>
C74	<a href="#">Totuskey Creek</a>	Confirmed	4		IV	<a href="#">Yes</a>
P116	<a href="#">N. Fork Richardson creek</a>	Potential	0			<a href="#">Yes</a>
P120	<a href="#">Pecks creek</a>	Potential	0			<a href="#">Yes</a>
P131	<a href="#">Richardson creek</a>	Potential	0			<a href="#">Yes</a>

#### Impediments to Fish Passage ( 2 records )

[View Map of All Fish Impediments](#)

ID	Name	River	View Map



88	<a href="#">DELAND DAM</a>	TR-PECKS CREEK	<a href="#">Yes</a>
86	<a href="#">GARLANDS DAM</a>	MARSHY SWAMP	<a href="#">Yes</a>

## Colonial Water Bird Survey ( 3 records )

[View Map of All Query Results  
Colonial Water Bird Survey.](#)

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE <sup>*</sup>	Highest Tier <sup>**</sup>	
<a href="#">Western Shore, Tappahannock, Essex</a>	1	May 10 2013	1			<a href="#">Yes</a>
<a href="#">Totuskey Creek</a>	1	May 20 2003	1			<a href="#">Yes</a>
<a href="#">Lowery Point</a>	1	May 9 2003	1			<a href="#">Yes</a>

Displayed 3 Colonial Water Bird Survey

## Threatened and Endangered Waters ( 10 Reaches )

[View Map of All  
Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Rappahannock River (041107.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (048354.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (049902.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052146.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052519.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054181.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054321.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055082.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055364.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (056953.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



**Managed Trout Streams**

N/A

**Bald Eagle Concentration Areas and Roosts**

N/A

**Bald Eagle Nests** ( 46 records )[View Map of All Query Results](#)  
[Bald Eagle Nests](#)

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
<a href="#">ES0102</a>	4	Jan 1 2003	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0301</a>	2	Mar 8 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES0401</a>	8	Mar 12 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">ES0402</a>	15	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES0403</a>	7	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0502</a>	7	Mar 12 2008	UNKNOWN	<a href="#">Yes</a>
<a href="#">ES0601</a>	5	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0602</a>	9	Apr 20 2010	HISTORIC	<a href="#">Yes</a>
<a href="#">ES0802</a>	8	Apr 22 2011	UNKNOWN	<a href="#">Yes</a>
<a href="#">ES0901</a>	6	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">ES8701</a>	1	Jan 1 1987	HISTORIC	<a href="#">Yes</a>
<a href="#">ES8801</a>	2	Jan 1 1989	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9001</a>	2	Jan 1 1991	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9504</a>	3	Apr 29 1995	HISTORIC	<a href="#">Yes</a>
<a href="#">ES9901</a>	5	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0004</a>	3	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0103</a>	2	May 1 2001	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0104</a>	2	May 1 2001	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0308</a>	15	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0309</a>	3	Jan 1 2005	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0311</a>	16	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0508</a>	6	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0509</a>	14	Apr 22 2011	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0606</a>	6	Mar 13 2008	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0607</a>	3	Apr 24 2006	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0608</a>	13	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0706</a>	10	Apr 22 2011	UNKNOWN	<a href="#">Yes</a>



<a href="#">RI0707</a>	8	Apr 20 2010	HISTORIC	<a href="#">Yes</a>
<a href="#">RI0811</a>	8	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0904</a>	6	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI0905</a>	4	Apr 20 2010	HISTORIC	<a href="#">Yes</a>
<a href="#">RI1008</a>	4	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI1103</a>	2	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI1104</a>	2	Apr 22 2011	Unknown	<a href="#">Yes</a>
<a href="#">RI7401</a>	9	May 3 1985	HISTORIC	<a href="#">Yes</a>
<a href="#">RI8604</a>	6	Jan 1 1991	HISTORIC	<a href="#">Yes</a>
<a href="#">RI8902</a>	22	Apr 28 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9004</a>	14	May 1 2007	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9106</a>	11	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9204</a>	17	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9504</a>	4	Apr 25 1996	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9806</a>	7	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9901</a>	5	Apr 26 2000	HISTORIC	<a href="#">Yes</a>
<a href="#">RI9902</a>	12	Apr 24 2006	HISTORIC	<a href="#">Yes</a>
<a href="#">WE0315</a>	1	May 1 2003	UNKNOWN	<a href="#">Yes</a>
<a href="#">WE0316</a>	15	Apr 22 2011	Unknown	<a href="#">Yes</a>

Displayed 46 Bald Eagle Nests

**Species Observations** ( 42 records - displaying first 20 , 5  
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**	
<a href="#">63002</a>	SppObs	Apr 26 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62952</a>	SppObs	Apr 18 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62968</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62969</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62949</a>	SppObs	Apr 7 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">425982</a>	SppObs	Sep 8 2006	VCU - INSTAR	8		III	<a href="#">Yes</a>
<a href="#">425979</a>	SppObs	May 7 1996	VCU - INSTAR	13		III	<a href="#">Yes</a>
<a href="#">425978</a>	SppObs	Apr 18 1996	VCU - INSTAR	17		III	<a href="#">Yes</a>



<a href="#">50801</a>	SppObs	Apr 18 1996	Dr. Greg Garman, VCU	15		III	<a href="#">Yes</a>
<a href="#">425977</a>	SppObs	Mar 4 1996	VCU - INSTAR	12		III	<a href="#">Yes</a>
<a href="#">62533</a>	SppObs	Jan 1 1996	Steve McNich and Greg Garman, VCU	12		III	<a href="#">Yes</a>
<a href="#">340371</a>	SppObs	Jul 27 1992		11		III	<a href="#">Yes</a>
<a href="#">337351</a>	SppObs	Jan 1 1982	EGM-B-MAURAKIS	9		III	<a href="#">Yes</a>
<a href="#">622515</a>	SppObs	Jun 19 2014	Benjamin; Colteaux  Stephany; Helbig  Tyler; Twyford	2		IV	<a href="#">Yes</a>
<a href="#">618956</a>	SppObs	Aug 6 2013	Benjamin; Colteaux  Eric; Burke  Stephanie ; Helbig	2		IV	<a href="#">Yes</a>
<a href="#">618953</a>	SppObs	May 28 2013	Benjamin; Colteaux  Eric; Burke  Stephanie ; Helbig	2		IV	<a href="#">Yes</a>
<a href="#">617423</a>	SppObs	Aug 30 2012	Benjamin; Colteaux	3		IV	<a href="#">Yes</a>
<a href="#">617420</a>	SppObs	Jul 17 2012	Benjamin; Colteaux	2		IV	<a href="#">Yes</a>
<a href="#">54574</a>	SppObs	Mar 11 1997	DR. GREG GARMAN, VIRGINIA COMMONWEALTH UNIVERSITY	11		IV	<a href="#">Yes</a>
<a href="#">50327</a>	SppObs	Mar 27 1996	Chris Drummond 410-827-5235	6		IV	<a href="#">Yes</a>

Displayed 20 Species Observations

Selected 42 Observations [View all 42 Species Observations](#)

Habitat Predicted for Aquatic WAP Tier I & II Species ( 1 Reach )

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

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

Habitat Predicted for Terrestrial WAP Tier I & II Species ( 3 Species )

[View Map of Combined Terrestrial Habitat Predicted for 3 WAP Tier I & II Species Listed Below](#)

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis	<a href="#">Yes</a>



040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Yes</a>
040105		Iib	<a href="#">Rail, king</a>	Rallus elegans	<a href="#">Yes</a>

### Virginia Breeding Bird Atlas Blocks ( 7 records )

[View Map of All Query Results](#)  
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
56112	<a href="#">Dunnsville, NE</a>	2			<a href="#">Yes</a>
57124	<a href="#">Haynesville, CE</a>	65		III	<a href="#">Yes</a>
57126	<a href="#">Haynesville, SE</a>	57		II	<a href="#">Yes</a>
57125	<a href="#">Haynesville, SW</a>	3		IV	<a href="#">Yes</a>
57111	<a href="#">Morattico, NW</a>	2			<a href="#">Yes</a>
56124	<a href="#">Tappahannock, CE</a>	1			<a href="#">Yes</a>
56126	<a href="#">Tappahannock, SE</a>	53		II	<a href="#">Yes</a>

### Public Holdings:

N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
057	<a href="#">Essex</a>	380	FESE	I
159	<a href="#">Richmond</a>	346	FESE	I

### USGS 7.5' Quadrangles:

Dunnsville  
Tappahannock  
Morattico  
Haynesville

### 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
RA61	<a href="#">Piscataway Creek</a>	55		II
RA62	<a href="#">Rappahannock River-Little Carter Creek</a>	54	FESE	I
RA63	<a href="#">Little Totuskey Creek</a>	61	SS	II
RA64	<a href="#">Totuskey Creek</a>	58		II
RA66	<a href="#">Rappahannock River-Cedar Creek</a>	51	FESE	I



Compiled on 11/25/2019, 3:30:04 PM 11003576.0 report=all searchType= L dist= 3218 poi= 37.9088611 -76.7358889 siteDD= 37.8750833 -76.7733054;37.8821333 -76.7599193;37.8831833 -76.7544026;37.8971416 -76.7350832;37.9064972 -76.7272554;37.9127666 -76.7113887;37.9344666 -76.7198721;37.9384083 -76.7178637;37.9458694 -76.7110221;37.9493361 -76.7123415  
PixelSize=64; Anadromous=0.083214; BBA=0.082906; BECAR=0.039526; Bats=0.039714; Buffer=0.38859; County=0.166342; HU6=0.18016; Impediments=0.059107; Init=0.52102; PublicLands=0.059462; Quad=0.115267; SppObs=0.563155; TEWaters=0.073788; TierReaches=0.111079; TierTerrestrial=0.136681; Total=2.535847; Tracking\_BOVA=0.139887; Trout=0.052069; huva=0.090716



**Site Location**

37,54,31.9 -76,44,09.2  
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  
buffer

Display Search Point is  
at center not at map center

**Base Map [Choices](#)**

Topography

**Map Overlay [Choices](#)**

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

**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

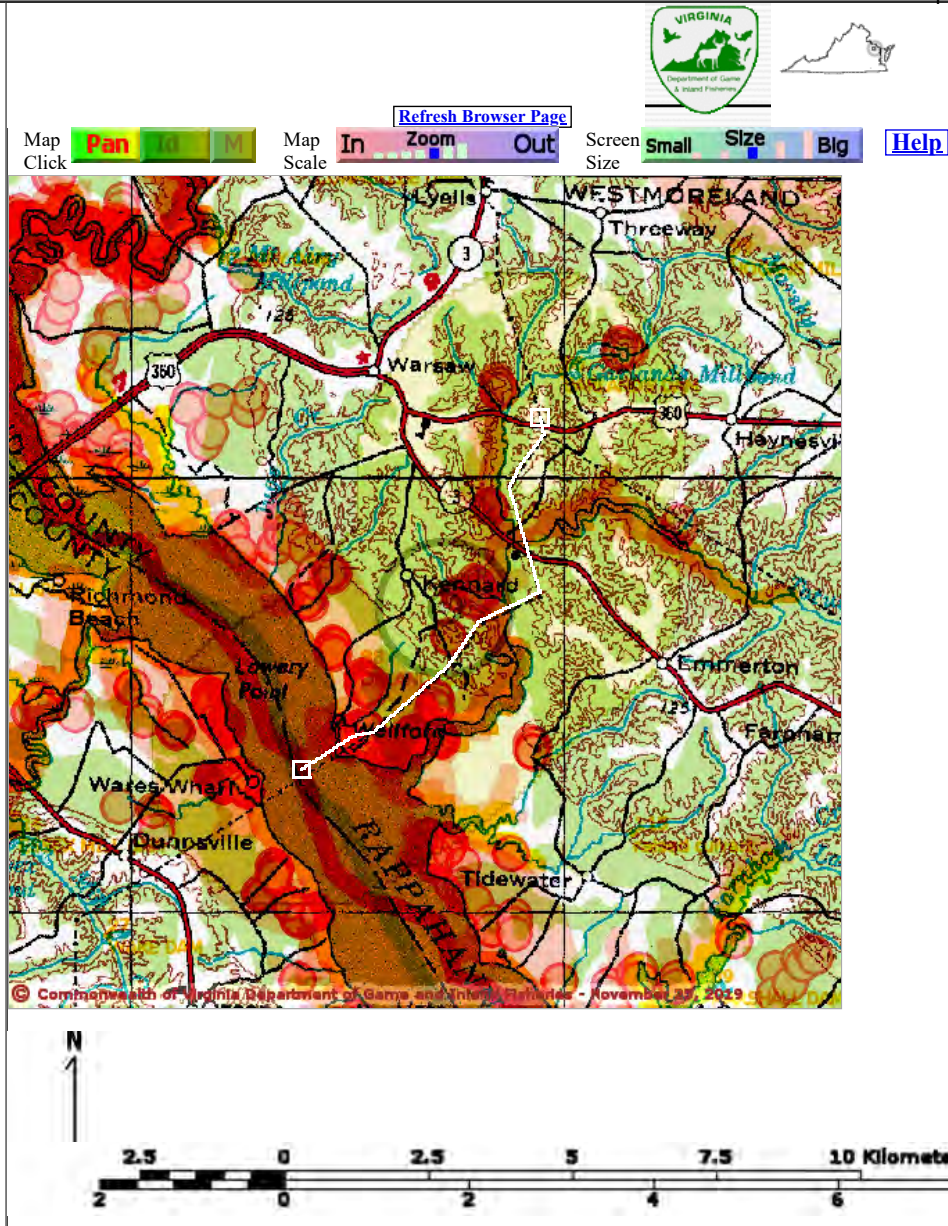
Potential

**Impediment**

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

2 mile radius  
Search Area

Bald Eagle  
Concentration Areas  
and Roosts



Point of Search 37,54,31.9 -76,44,09.2

Map Location 37,54,43.7 -76,44,28.6

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 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 337333 and top 4207098. Pixel size is 24. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 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 acquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.

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map assembled 2019-11-25 15:28:29 (qa/qc March 21, 2016 12:20 - tn=1003576.0 dist=3218  
I)  
\$poi=37.9088611 -76.7358889




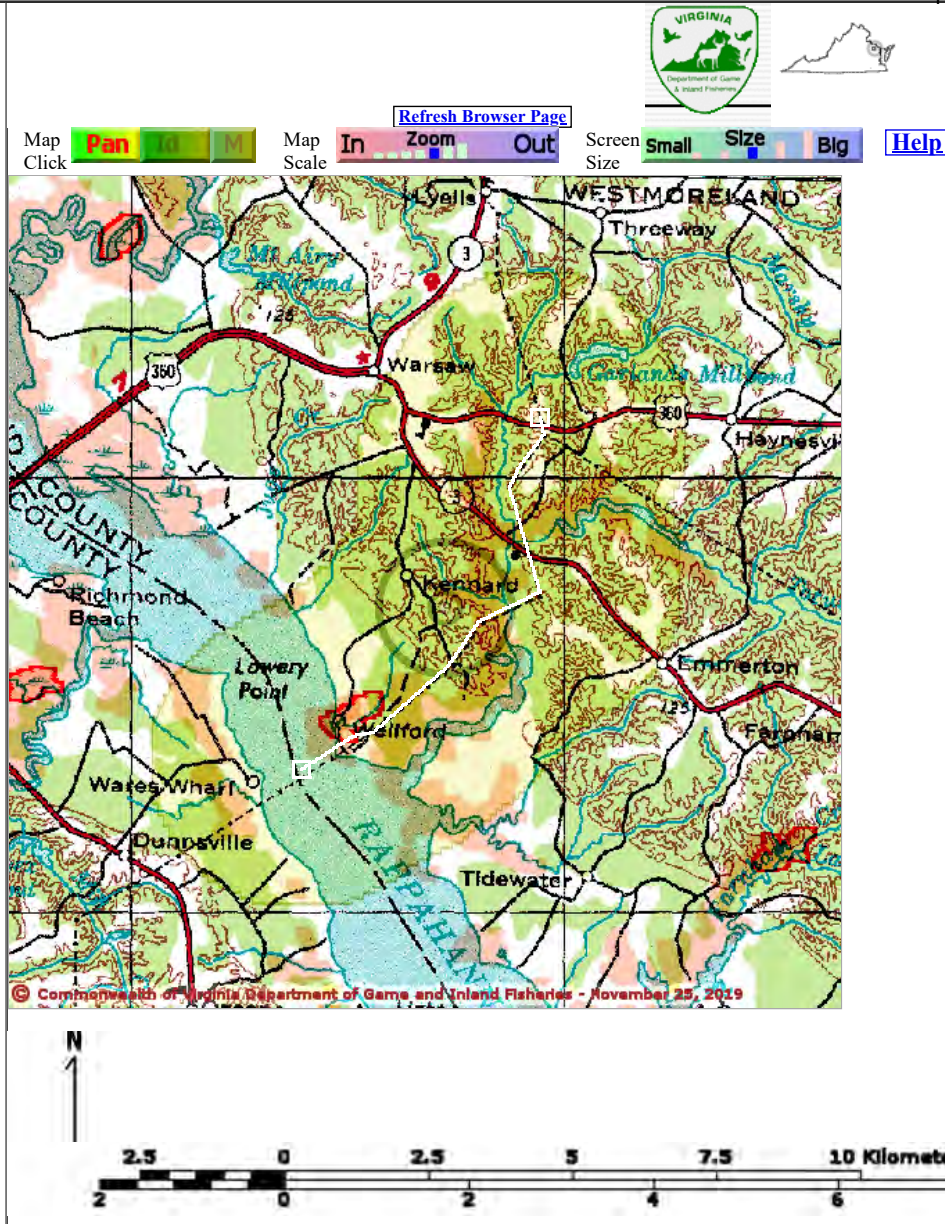
**Predicted Habitat  
(040379) Sparrow,  
Henslow's**37,54,31.9 -76,44,09.2  
is the Search PointDisplay Item Location is  
at center not at map center**Show Position Rings**☒ Yes ☐ No1 mile and 1/4 mile at the  
Search Point**Show Search Area**☒ Yes ☐ No2 Search distance miles  
bufferDisplay Search Point is  
at center not at map center**Base Map [Choices](#)**

Topography

**Map Overlay [Choices](#)**Current List: Position, Search,  
Observation**Map Overlay Legend****Predicted Habitat  
WAP Tier I & II**

Aquatic

Terrestrial

 Position Rings  
1 mile and 1/4  
mile at the  
Search Point 2 mile radius  
Search Area Data  
Observation Site

Point of Search 37,54,31.9 -76,44,09.2

Map Location 37,54,43.7 -76,44,28.6

Select **Coordinate System:** ☒ Degrees, Minutes, Seconds Latitude - Longitude☐ Decimal Degrees Latitude - Longitude☐ Meters UTM NAD83 East North Zone☐ Meters UTM NAD27 East North ZoneBase Map source: USGS 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 337333 and top 4207098. Pixel size is 24. .  
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed  
as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters  
east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display  
represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 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 acquired 2002 is from Virginia Base Mapping Program, Virginia  
Geographic Information Network.

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map assembled 2019-11-25 15:50:39 (qa/qc March 21, 2016 12:20 - tn=1003576.1 dist=3218  
I)  
\$poi=37.9088611 -76.7358889\$query=select BOVA from  
vafwis\_tables.dbo.cvTierTerrestrial where BOVA in ('040379')





# Virginia Department of Game and Inland Fisheries

11/25/2019 3:49:57 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 3:49:57 PM

[Help](#)

Observations reported or potential habitat occurs within a **2 mile buffer around line beginning 37.9088611 -76.7358889**  
in **057 Essex County, 159 Richmond County, VA**  
where (040379) [Sparrow, Henslow s](#) observed.

[View Map of Site Location](#)

**Habitat Predicted for Aquatic WAP Tier I & II Species where Sparrow, Henslow s (040379) observed**

N/A

**Habitat Predicted for Terrestrial WAP Tier I & II Species where Sparrow, Henslow s (040379) observed**

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040379	ST	Ia	<a href="#">Sparrow, Henslow's</a>	Ammodramus henslowii	<a href="#">Yes</a>

Compiled on 11/25/2019, 3:49:57 PM 11003576.1 report=BOVA searchType= L dist= 3218 poi= 37.9088611 -76.7358889

audit no. 1003576 11/25/2019 3:49:57 PM Virginia Fish and Wildlife Information Service  
© 1998-2019 Commonwealth of Virginia Department of Game and Inland Fisheries



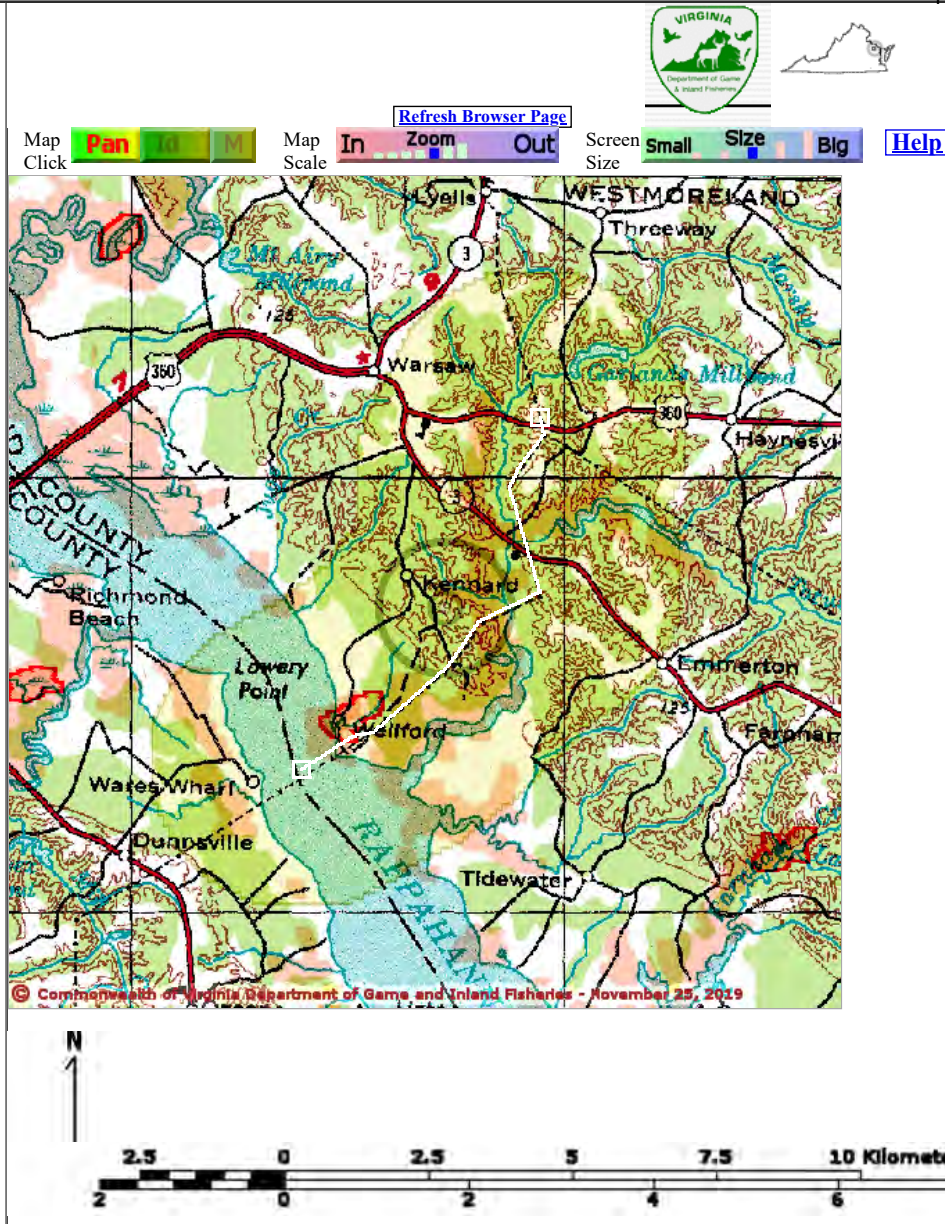
**Predicted Habitat  
(040110) Rail, eastern  
black**37,54,31.9 -76,44,09.2  
is the Search PointDisplay Item Location is  
at center not at map center**Show Position Rings**☒ Yes ☐ No1 mile and 1/4 mile at the  
Search Point**Show Search Area**☒ Yes ☐ No2 Search distance miles  
bufferDisplay Search Point is  
at center not at map center**Base Map Choices**

Topography

**Map Overlay Choices**Current List: Position, Search,  
Observation**Map Overlay Legend****Predicted Habitat  
WAP Tier I & II**

Aquatic

Terrestrial

Position Rings  
1 mile and 1/4  
mile at the  
Search Point2 mile radius  
Search AreaData  
Observation Site

Point of Search 37,54,31.9 -76,44,09.2

Map Location 37,54,43.7 -76,44,28.6

Select **Coordinate System:** ☒ Degrees, Minutes, Seconds Latitude - Longitude☐ Decimal Degrees Latitude - Longitude☐ Meters UTM NAD83 East North Zone☐ Meters UTM NAD27 East North ZoneBase Map source: USGS 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 337333 and top 4207098. Pixel size is 24. .  
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed  
as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters  
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Fisheries.



map assembled 2019-11-25 15:48:46 (qa/qc March 21, 2016 12:20 - tn=1003576.1 dist=3218  
I)  
\$poi=37.9088611 -76.7358889\$query=select BOVA from  
vafwis\_tables.dbo.cvTierTerrestrial where BOVA in ('040110')





# Virginia Department of Game and Inland Fisheries

11/25/2019 3:48:22 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 3:48:22 PM[Help](#)

Observations reported or potential habitat occurs within a **2 mile buffer around line beginning 37.9088611 -76.7358889**  
in **057 Essex County, 159 Richmond County, VA**  
where (040110) [Rail, eastern black](#) observed.

[View Map of  
Site Location](#)

**Habitat Predicted for Aquatic WAP Tier I & II Species where Rail, eastern black (040110) observed**

N/A

**Habitat Predicted for Terrestrial WAP Tier I & II Species where Rail, eastern black (040110) observed**

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040110	FPSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis	<a href="#">Yes</a>

Compiled on 11/25/2019, 3:48:22 PM 11003576.1 report=BOVA searchType= L dist= 3218 poi= 37.9088611 -76.7358889

audit no. 1003576 11/25/2019 3:48:22 PM Virginia Fish and Wildlife Information Service  
© 1998-2019 Commonwealth of Virginia Department of Game and Inland Fisheries



# Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

37,54,31.9 -76,44,09.2  
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  
buffer

Display Search Point is  
at center not at map center

## Base Map Choices

Topography ▼

## Map Overlay Choices

Current List: Position, Search, TEWaters

## Map Overlay Legend

### T & E Waters

☒ Federal  
☒ State

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

☒ 2 mile radius  
Search Area



Point of Search 37,54,31.9 -76,44,09.2

Map Location 37,54,43.7 -76,44,28.6

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 1:250,000 topographic maps (see [Microsoft.terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 337333 and top 4207098. Pixel size is 24. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

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map assembled 2019-11-25 15:47:39 (qa/qc March 21, 2016 12:20 - tn=1003576.1 dist=3218  
I)  
\$poi=37.9088611 -76.7358889





# Virginia Department of Game and Inland Fisheries

11/25/2019 3:47:14 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 11/25/2019, 3:47:14 PM

[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 37.9088611 -76.7358889**  
 in **057 Essex County, 159 Richmond County, VA**  
 where (010032) [Sturgeon, Atlantic](#) observed.

[View Map of Site Location](#)

### Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

( 10 Reaches )

[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
<a href="#">Rappahannock River (041107.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (048354.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (049902.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052146.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (052519.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054181.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (054321.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055082.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (055364.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
<a href="#">Rappahannock River (056953.)</a>	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>



\*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 Wildlife 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.

## Species Observations where Sturgeon, Atlantic (010032) observed

( 5 records , 5 Observations with  
Threatened or Endangered species )

[View Map of All Query Results](#)

[Species Observations where Sturgeon, Atlantic \(010032\) observed](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
<a href="#">63002</a>	SppObs	Apr 26 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62952</a>	SppObs	Apr 18 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62968</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62969</a>	SppObs	Apr 11 1997	USFWS	1	FESE	I	<a href="#">Yes</a>
<a href="#">62949</a>	SppObs	Apr 7 1997	USFWS	1	FESE	I	<a href="#">Yes</a>

Displayed 5 Species Observations where Sturgeon, Atlantic (010032) observed

## Habitat Predicted for Aquatic WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

( 1 Reach )

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

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>
Rappahannock River (20801041)	FESE	010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus	<a href="#">Yes</a>

## Habitat Predicted for Terrestrial WAP Tier I & II Species where Sturgeon, Atlantic (010032) observed

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
RA62	<a href="#">Rappahannock River-Little Carter Creek</a>	54	FESE	I
RA66	<a href="#">Rappahannock River-Cedar Creek</a>	51	FESE	I

Compiled on 11/25/2019, 3:47:14 PM I1003576.1 report=BOVA searchType= L dist= 3218 poi= 37.9088611 -76.7358889

audit no. 1003576 11/25/2019 3:47:14 PM Virginia Fish and Wildlife Information Service  
© 1998-2019 Commonwealth of Virginia Department of Game and Inland Fisheries

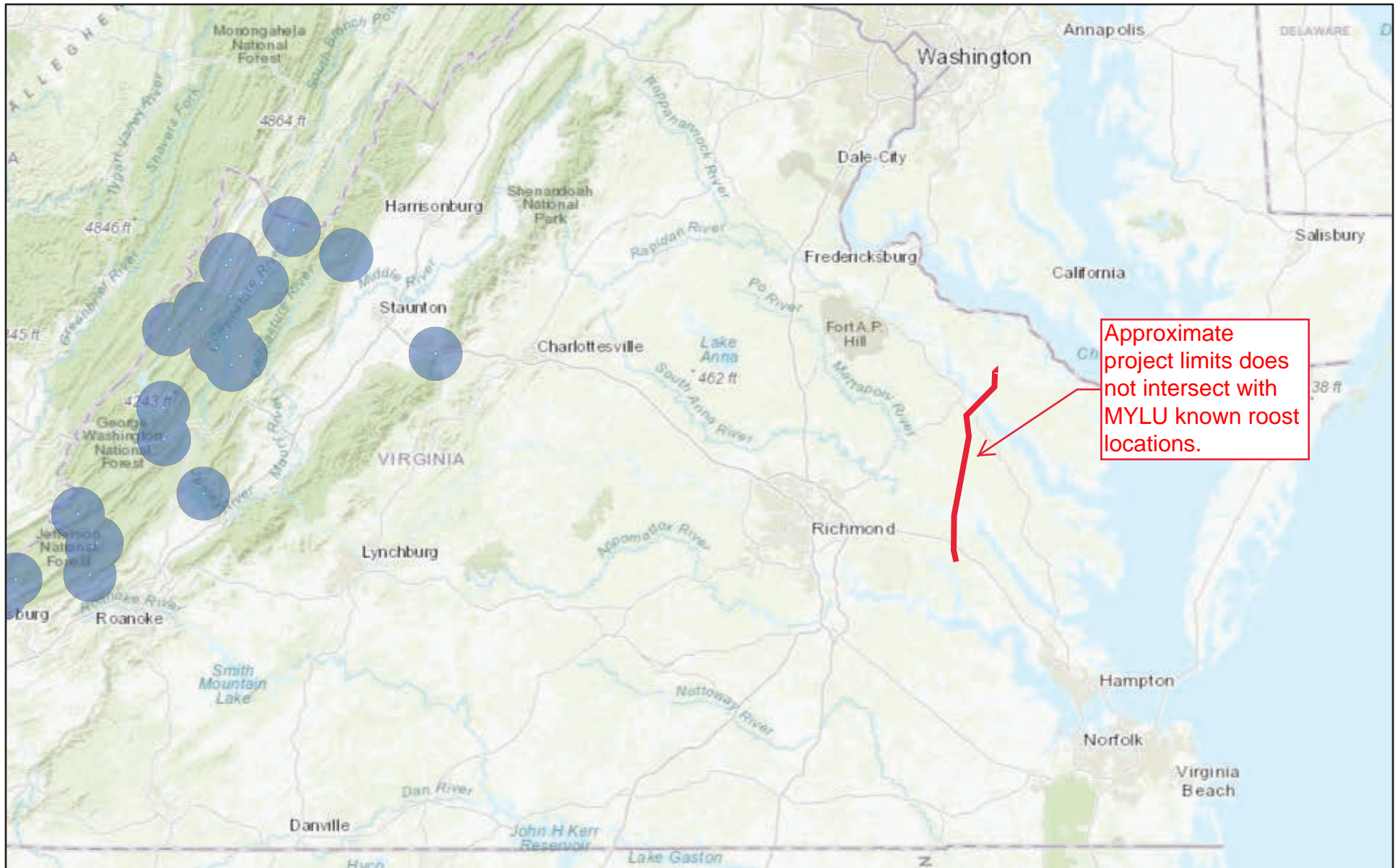


# **DGIF TRI-COLORED AND LITTLE BROWN BAT HIBERNACULUM LOCATIONS**



**Database Searches**

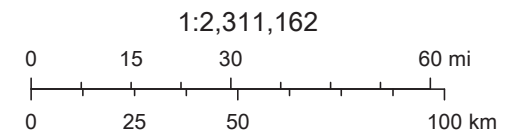


## MYLU Locations and Roost Trees



11/20/2019 1:11:04 PM

-  Tri-colored and Little Brown Hibernaculum Half Mile Buffer
-  Tri-colored and Little Brown Hibernaculum 5.5 Mile Buffer



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

Dept. Game and Inland Fisheries  
Esri, HERE, Garmin, FAO, USGS, EPA, NPS |

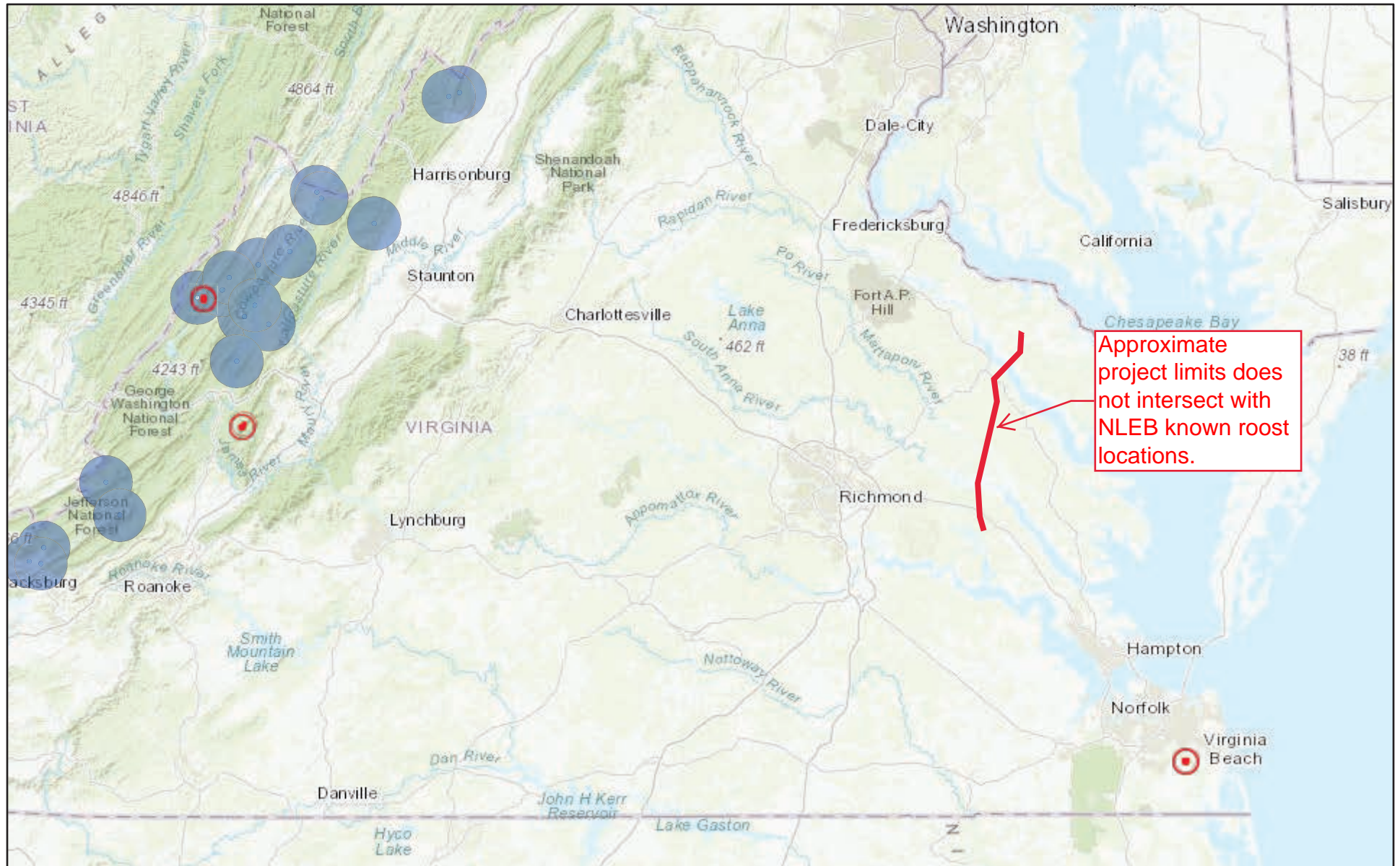


# **DGIF NLEB**

## **Database Searches**

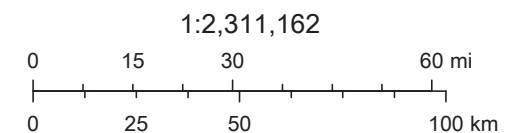


# NLEB Locations and Roost Trees



11/20/2019 12:48:42 PM

- ⊙ NLEB Known Occupied Maternity Roost (Summer Habitat)
- NLEB Hibernaculum 5.5 Mile Buffer
- NLEB Hibernaculum Half Mile Buffer



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

VA Dept. Game & Inland Fisheries  
Esri, HERE, Garmin, FAO, USGS, EPA, NPS |

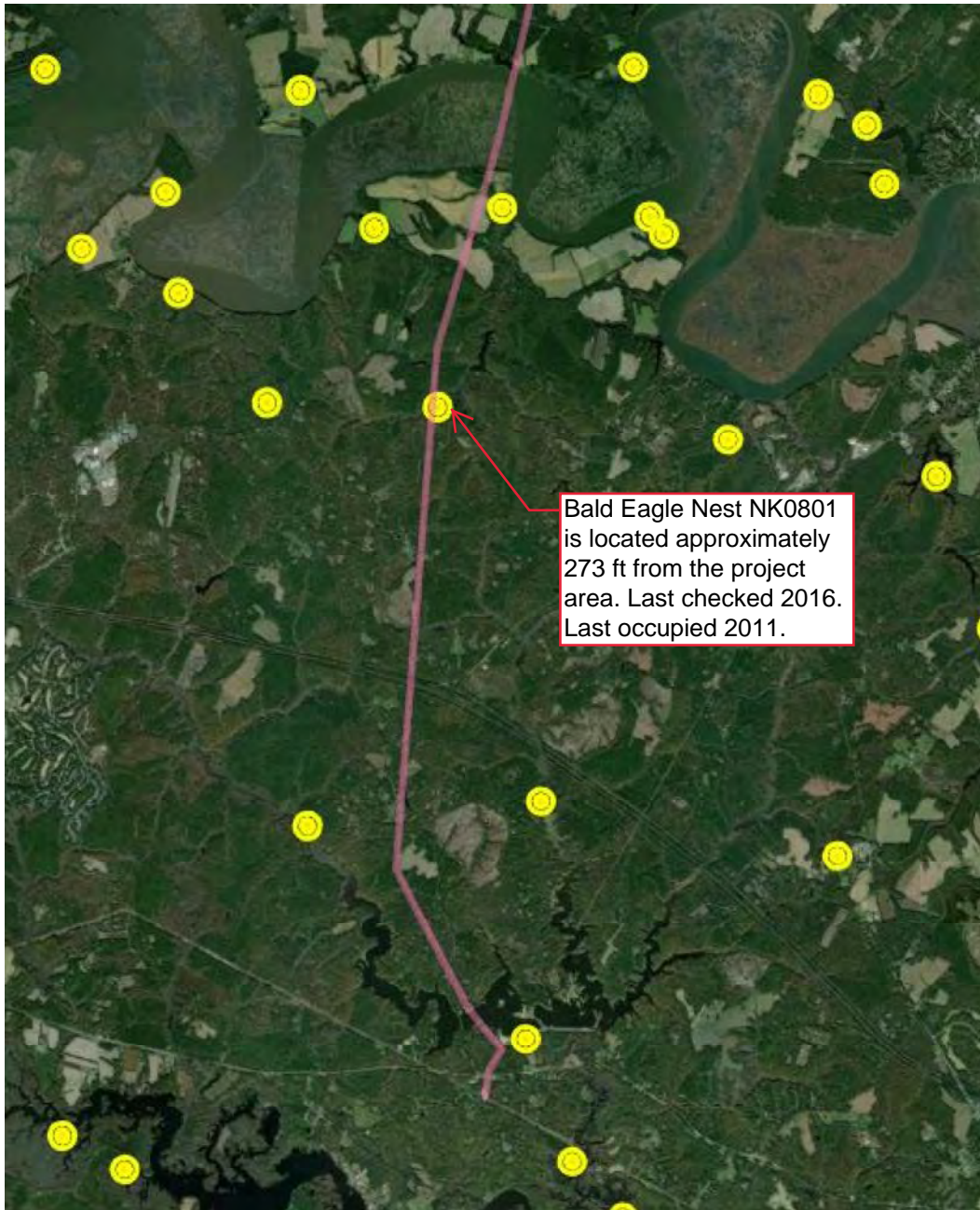


# **CCB BALD EAGLE**

## **Database Searches**

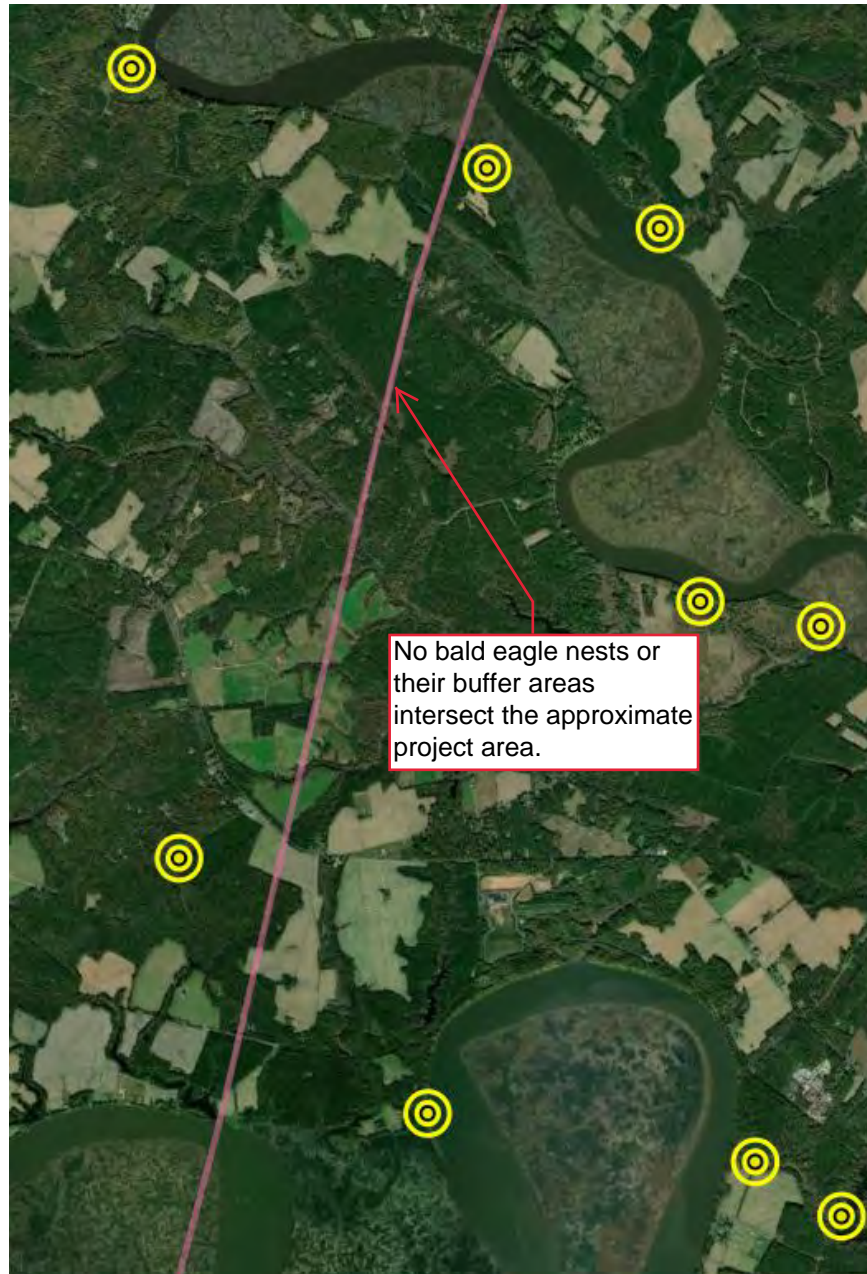


Center for Conservation Biology  
Bald Eagle Nest Locator  
New Kent County



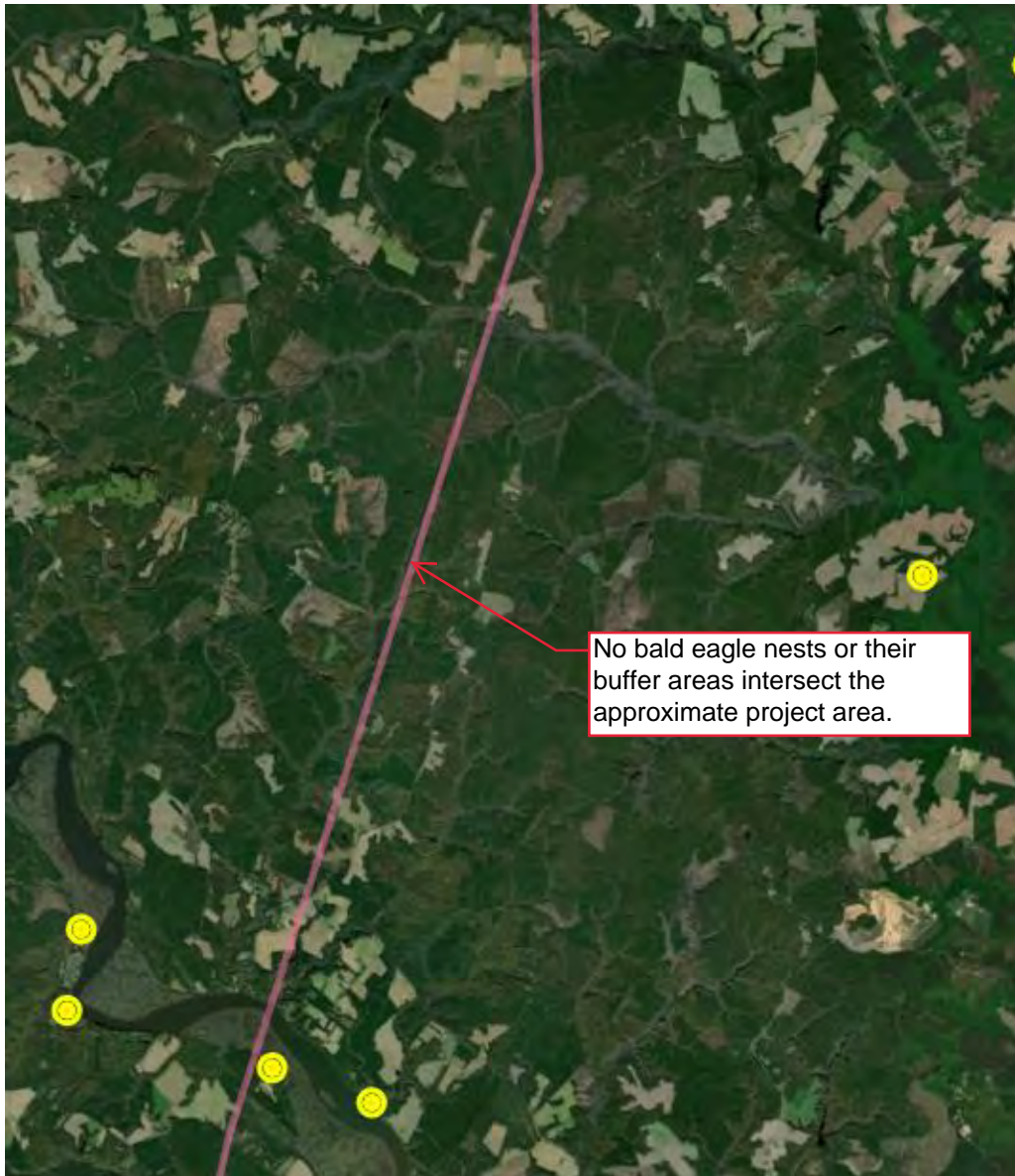


Center for Conservation Biology  
Bald Eagle Nest Locator  
King William County





Center for Conservation Biology  
Bald Eagle Nest Locator  
King and Queen County



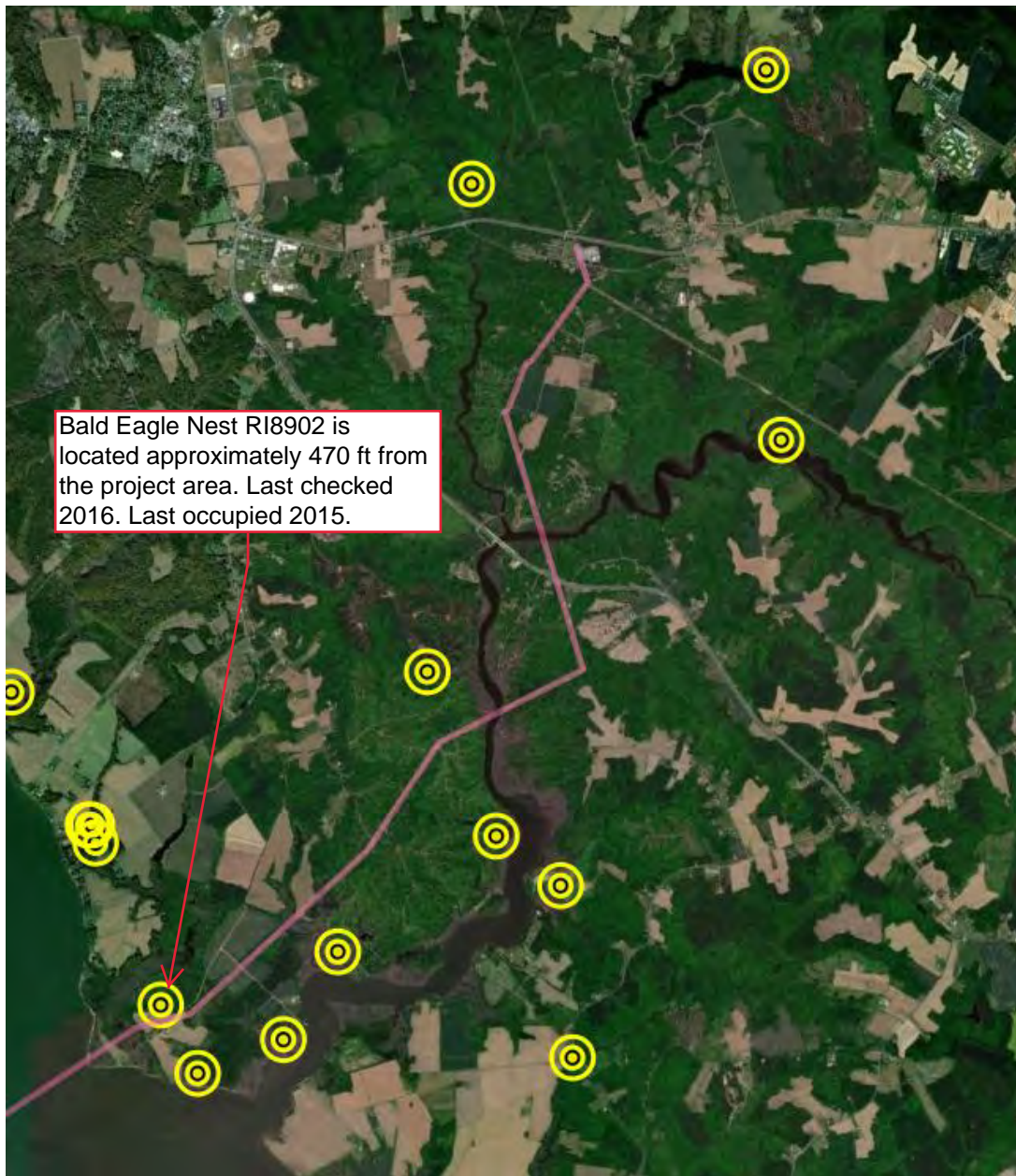


Center for Conservation Biology  
Bald Eagle Nest Locator  
Essex County





Center for Conservation Biology  
Bald Eagle Nest Locator  
Richmond County

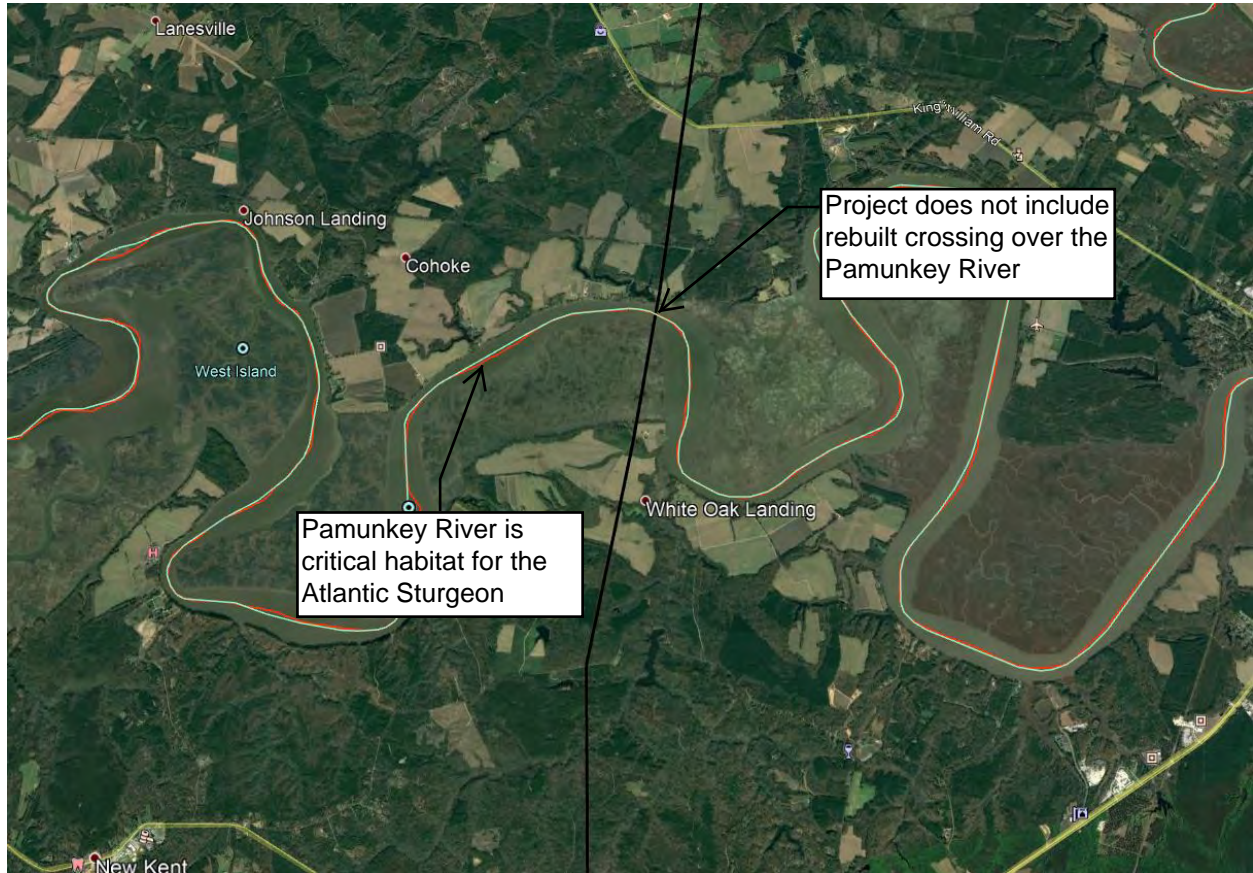




**NOAA Fisheries -  
Critical Habitat for  
the Atlantic  
Sturgeon  
Database Searches**



NOAA Fisheries – Southeast Region  
Critical Habitat for the Atlantic Sturgeon



New Kent County Project Segment



**From:** [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)  
**To:** [Gray, Corey](#)  
**Subject:** FW: Re: Proposed Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New Line Project  
**Date:** Wednesday, September 9, 2020 7:55:33 AM  
**Attachments:** [image001.png](#)

---

DWR response for the 224 line.

**From:** Ewing, Amy <amy.ewing@dwr.virginia.gov>  
**Sent:** Tuesday, September 8, 2020 12:38 PM  
**To:** Rachel M Studebaker (Services - 6) <Rachel.M.Studebaker@dominionenergy.com>  
**Subject:** [EXTERNAL] Re: Proposed Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New Line Project

Thank you for contacting us about your project. Due to staffing limitations, we are unable to review and provide comments on projects that are not currently involved in one of the regulatory review processes for which we are a formal consulting agency (see <https://www.DWR.virginia.gov/environmental-programs/>). If your project becomes involved in one of these review processes, we will review the project at that time and provide our comments to the requesting agency. In advance of that, we recommend that you conduct a preliminary desktop analysis to evaluate your project's potential impacts upon the Commonwealth's wildlife resources by accessing our online information system, the Virginia Fish and Wildlife Information Service (VAFWIS) and using the **Geographic Search** function to generate an **Initial Project Assessment** (IPA) report.

We recommend the following steps:

A. Access VAFWIS at this link: <https://vafwis.DWR.virginia.gov/fwis/>

If you are not already a VAFWIS subscriber, you should request to become one by emailing a request to [VAFWIS\\_support@DWR.virginia.gov](mailto:VAFWIS_support@DWR.virginia.gov). VAFWIS Subscriptions are free of charge. As a subscriber, one is able to generate an IPA for the project area (project site plus a minimum 2-mile buffer) which generates a list of imperiled wildlife and designated wildlife resources known from the project area. You may also access VAFWIS as a visitor, but access to data and mapping at this user level is restricted.

Alternatively, you may contact our Geographic Information Systems (GIS) Coordinator, Jay Kapalczynski, at [Jay.Kapalczynski@DWR.virginia.gov](mailto:Jay.Kapalczynski@DWR.virginia.gov) to request access to the Wildlife Mapping and Environmental Review Map Service (WERMS) which allows you to download GIS data into your own system.

B. Access information about the location of bat hibernacula and roosts from the following locations:

Northern Long-Eared Bats: <https://www.dwr.virginia.gov/wildlife/bats/northern-long-eared-bat-application/>



Little Brown Bats and Tricolored Bats:

<https://www.dwr.virginia.gov/wildlife/bats/little-brown-bat-tri-colored-bat-winter-habitat-roosts-application/>

C. Access up to date information about the location and status of bald eagle nests in Virginia by accessing the Center for Conservation Biology's Eagle Nest Locator at <https://ccbbirds.org/what-we-do/research/species-of-concern/virginia-eagles/nest-locator/>

D. Review the DWR information, guidance, and protocols available on our website at the bottom of [this page](#) in the "Additional Resources" section and implement, as appropriate.

E. Include the results of your desktop analysis with your project documents, applications, etc.



**Amy Martin Ewing**

*Environmental Services Biologist  
Manager, Wildlife Information*

P 804.367.2211

**Department of Wildlife Resources**

*CONSERVE. CONNECT. PROTECT.*

A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228

[www.VirginiaWildlife.gov](http://www.VirginiaWildlife.gov)

On Fri, Sep 4, 2020 at 11:28 AM [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)  
<[Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)> wrote:

Ms. Ewing,

Please see the attached letter and project map notifying you of the proposed transmission line rebuild project located in New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia.

Please contact me with any questions or for additional information.

Thank you,

*Rachel Studebaker*

Environmental Specialist II  
Dominion Energy Services  
120 Tredegar Street, Richmond, VA 23219  
Office: (804) 273-4086



Cell: (804) 217-1847



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Matthew J. Strickler  
Secretary of Natural Resources

Clyde E. Cristman  
Director



Rochelle Altholz  
Deputy Director of  
Administration and Finance

Russell W. Baxter  
Deputy Director of  
Dam Safety & Floodplain  
Management and Soil & Water  
Conservation

Thomas L. Smith  
Deputy Director of Operations

**COMMONWEALTH of VIRGINIA**  
DEPARTMENT OF CONSERVATION AND RECREATION

March 20, 2020

Lauren Pudvah  
Stantec Consulting Services, Inc.  
5209 Center Street  
Williamsburg, VA 23188

Re: 203401404, Line 224 230 kV Partial Rebuild

Dear Ms. Pudvah:

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

**Haynesville Quad, Tappahannock Quad, New Kent Quad**

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

**Dunnsville Quad**

According to a DCR biologist, there is a potential for the Robust baskettail (*Epitheca spinosa*, G4/S2S3/NL/NL) to occur at the crossing of Dragon Swamp if suitable habitat exists on site. The Robust baskettail is a state rare dragonfly that inhabit swamps with some water movement, and boggy ponds and lakes (Dunkle, 2000). It ranges from Oklahoma to New Jersey and southward to Louisiana and the Florida panhandle (NatureServe, 2009). In Virginia, it is known from the Piedmont and Coastal Plain physiographic regions.

Adult Odonata (dragonflies and damselflies), commonly seen flitting and hovering along the shores of most freshwater habitats, are accomplished predators. They lay their eggs on emergent vegetation or debris at the water's edge. Unlike the adults, the larvae are aquatic where they typically inhabit the sand and gravel of the substrates. Wingless and possessing gills, they crawl about the submerged leaf litter and debris stalking their insect prey. The larvae seize unsuspecting prey with a long, hinged "grasper" that folds neatly under their chin. When larval development is complete, the aquatic larvae crawl from the water to the bank, climb up the stalk of the shoreline vegetation, and the winged adult emerges (Hoffman 1991; Thorpe and Covich 1991).

Because of their aquatic lifestyle and limited mobility, the larvae are particularly vulnerable to shoreline disturbances that cause the loss of shoreline vegetation and siltation. They are also sensitive to alterations that result in poor water quality, aquatic substrate changes, and thermal fluctuations.



### Truhart Quad

According to the information currently in our files, the Exol Swamp Stream Conservation Unit (SCU) is located within the project site (Map 2). SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Exol Swamp SCU has been given a biodiversity ranking of B3, which represents a site of high significance. The natural heritage resource associated with this site is:

Aquatic Natural Community (NC-Great Wicomico-Piankatank First Order Stream)      G3/S3/NL/NL

The documented Aquatic Natural Community is based on Virginia Commonwealth University's **INSTAR** (*Interactive Stream Assessment Resource*) database which includes over 2,000 aquatic (stream and river) collections statewide for fish and macroinvertebrate. These data represent fish and macroinvertebrate assemblages, instream habitat, and stream health assessments. The associated Aquatic Natural Community is significant on multiple levels. First, this stream is a grade B, per the VCU-Center for Environmental Sciences (CES), indicating its relative regional significance, considering its aquatic community composition and the present-day conditions of other streams in the region. This stream reach also holds a "Healthy" stream designation per the INSTAR Virtual Stream Assessment (VSS) score. This score assesses the similarity of this stream to ideal stream conditions of biology and habitat for this region. Lastly, this stream contributes to high Biological Integrity at the watershed level (6<sup>th</sup> order) based on number of native/non-native, pollution-tolerant/intolerant and rare, threatened or endangered fish and macroinvertebrate species present.

Threats to the significant Aquatic Natural Community and the surrounding watershed include water quality degradation related to point and non-point pollution, water withdrawal and introduction of non-native species.

In addition, according to a DCR biologist, there is a potential for the Robust baskettail (*Epitheca spinosa*, G4/S2S3/NL/NL) to occur at the crossing of Exol Swamp if suitable habitat exists on site.

### King and Queen Courthouse Quad

According to the information currently in our files, the Gleason Marsh Conservation Site (Map 3) is located within the project site. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. Gleason Marsh Conservation Site has been given a biodiversity significance ranking of B2, which represents a site of very high significance. The natural heritage resource of concern at this site is:

Tidal Oligohaline Marsh (Big Cordgrass Type)      G4/S4/NL/NL

Tidal Oligohaline Marshes are graminoid-dominated wetlands of slightly brackish zones along tidal rivers and streams of the Coastal Plain. Oligohaline conditions are defined as salt concentrations between 0.5 and 5 ppt, although pulses of higher halinity may occasionally occur. Vegetation in this group occurs along the coast from Maine to Georgia. In Virginia and elsewhere in the Mid-Atlantic region, one of the most characteristic oligohaline marsh communities is strongly dominated by big cordgrass (*Spartina cynosuroides*). This type usually occurs in the higher range of oligohaline salinity, especially on relatively well drained levees along tidal channels. The range in Virginia includes the Potomac, Rappahannock, Mattaponi, Pamunkey, Chickahominy, and James Rivers and their major tributaries in the middle-estuarine zone. The vegetation varies from nearly monospecific big



cordgrass to somewhat more mixed stands of dominant cordgrass and subordinate arrow-arum (*Peltandra virginica*), dotted smartweed (*Persicaria punctata*), eastern rose-mallow (*Hibiscus moscheutos*), halberd-leaved tearthumb (*Persicaria arifolia*), and climbing hempweed (*Mikania scandens*). Dredge spoils and other disturbed areas within this community are often invaded and replaced by nearly monospecific colonies of common reed (*Phragmites australis* ssp. *australis*); this highly aggressive, invasive subspecies constitutes a serious threat to tidal marshes throughout the Coastal Plain. (Fleming, et al. 2012)

### Walkers Quad

According to the information currently in our files, the Beaverdam Creek SCU and the Chickahominy River – Shipyard Creek – Diascund Creek SCU are located within the project site (Map 4). The Beaverdam Creek SCU has been given a biodiversity ranking of B3, which represents a site of high significance. The natural heritage resource associated with this site is:

Aquatic Natural Community  
(NC-Lower James Third Order Stream)

G2G33/S2S3/NL/NL

The documented Aquatic Natural Community is based on Virginia Commonwealth University’s INSTAR (*Interactive Stream Assessment Resource*) database which includes over 2,000 aquatic (stream and river) collections statewide for fish and macroinvertebrate. These data represent fish and macroinvertebrate assemblages, instream habitat, and stream health assessments. This stream reach holds a “Healthy” stream designation per the INSTAR Virtual Stream Assessment (VSS) score. This score assesses the similarity of this stream to ideal stream conditions of biology and habitat for this region. Lastly, this stream contributes to high Biological Integrity at the watershed level (6<sup>th</sup> order) based on number of native/non-native, pollution-tolerant/intolerant and rare, threatened or endangered fish and macroinvertebrate species present.

Threats to the significant Aquatic Natural Community and the surrounding watershed include water quality degradation related to point and non-point pollution, water withdrawal and introduction of non-native species.

The Chickahominy River – Shipyard Creek – Diascund Creek SCU has been given a biodiversity ranking of B2, which represents a site of very high significance. The natural heritage resources associated with this site are:

<i>Bacopa innominata</i>	Tropical water-hyssop	G3G5/S2/NL/NL
<i>Eriocaulon parkeri</i>	Parker’s pipewort	G3/S2/NL/NL
<i>Isoetes hyemalis</i>	Winter quillwort	G2G3/S2/SOC/NL
<i>Nuphar sagittifolia</i>	Narrow-leaved spatterdock	G5T2/S1/SOC/LT
<i>Cabomba caroliniana</i>	Carolina fanwort	G3G5/S1S2/NL/NL
<i>Regina rigida</i>	Glossy Crayfish snake	G5/S1/NL/NL
Aquatic Natural Community (NC-Lower James Fourth Order Stream)		G2?/S2?/NL/NL

### All Quads

To minimize adverse impacts to the aquatic ecosystems as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations, establishment/enhancement of riparian buffers with native plant species and maintaining natural stream flow.

Due to the potential for the Dragon Swamp and Exol Swamp crossings to support populations of Robust baskettail, DCR recommends an inventory for the resource in those project areas. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.



DCR-Division of Natural Heritage biologists are qualified and available to conduct inventories for rare, threatened, and endangered species. Please contact Anne Chazal, Natural Heritage Chief Biologist, at [anne.chazal@dcr.virginia.gov](mailto:anne.chazal@dcr.virginia.gov) or 804-786-9014 to discuss arrangements for field work.

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 as long as strict adherence to E & S measures are followed during construction of the project.

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

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

A fee of \$1110.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24<sup>th</sup> Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or [Ernie.Aschenbach@dgif.virginia.gov](mailto:Ernie.Aschenbach@dgif.virginia.gov).

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,



Tyler Meader  
Natural Heritage Locality Liaison

CC: Troy Andersen, USFWS



#### Literature Cited

Dunkle, S. W. 2000. Dragonflies through binoculars: A field guide to dragonflies of North America. Oxford University Press. New York, NY. 266 pp.

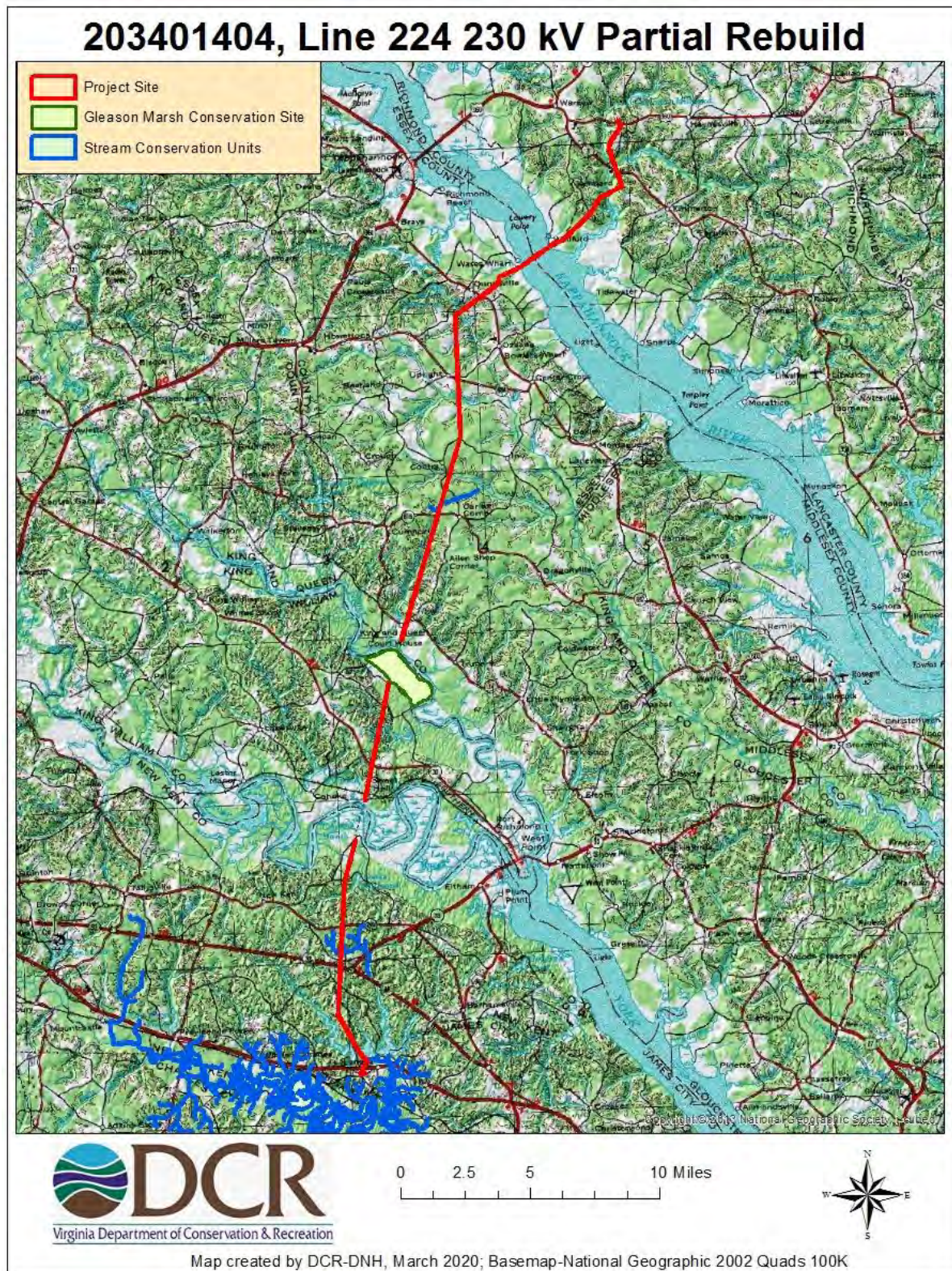
Dunkle, S. W. 2000. Dragonflies through binoculars: A field guide to dragonflies of North America. Oxford University Press. New York, NY. 266 pp.

Hoffman, R. 1991. Arthropods. Pp. 173 in: K. Terwilliger (ed.), Virginia's Endangered Species: proceedings of a symposium. The McDonald and Woodward Publishing Company, Blacksburg, VA.

Thorpe, J.H., and A.P. Covich. 1991. Ecology and Classification of North American Freshwater Invertebrates. Academic Press, Inc., San, Diego, California.

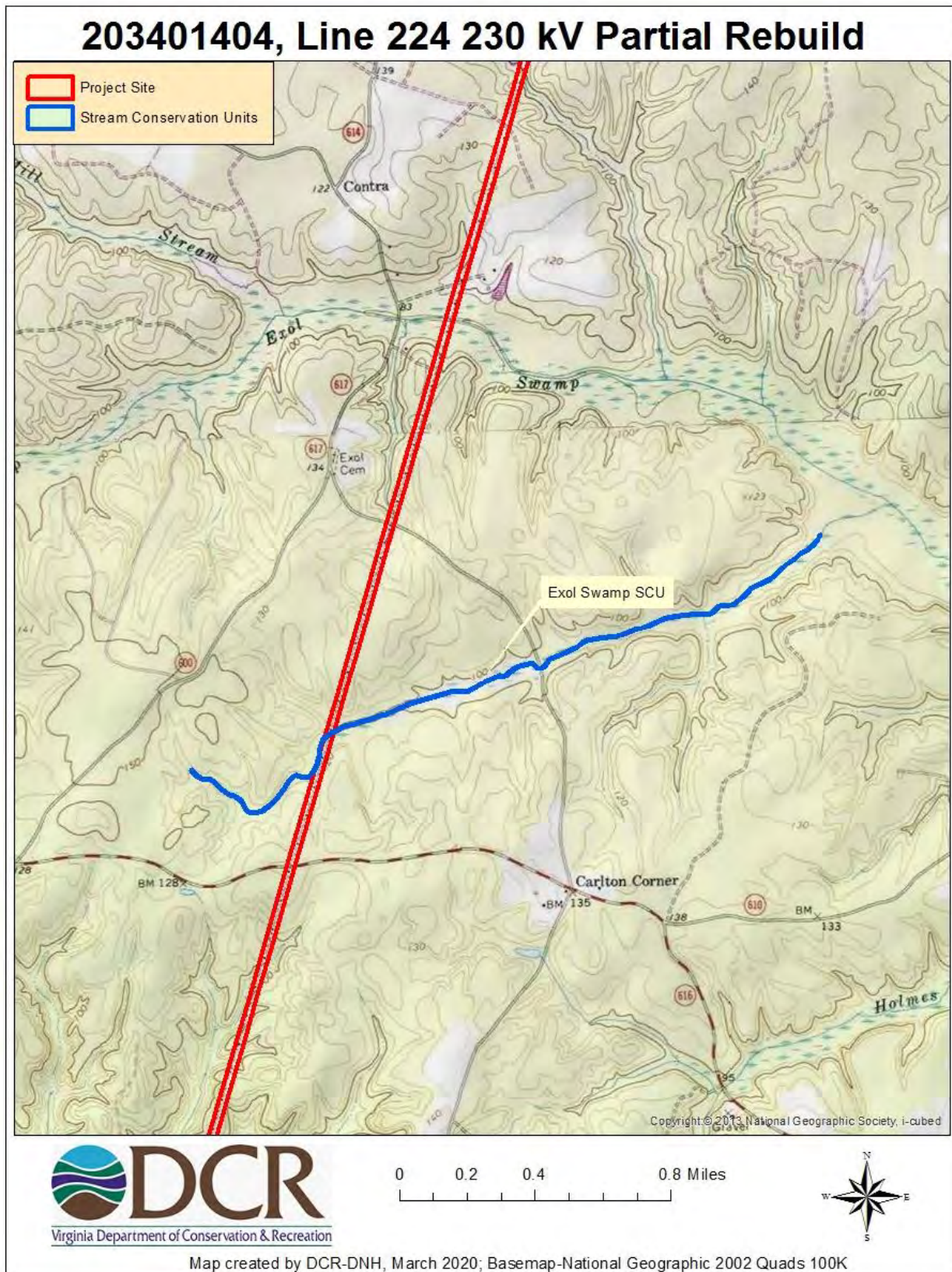


Map 1. Overview



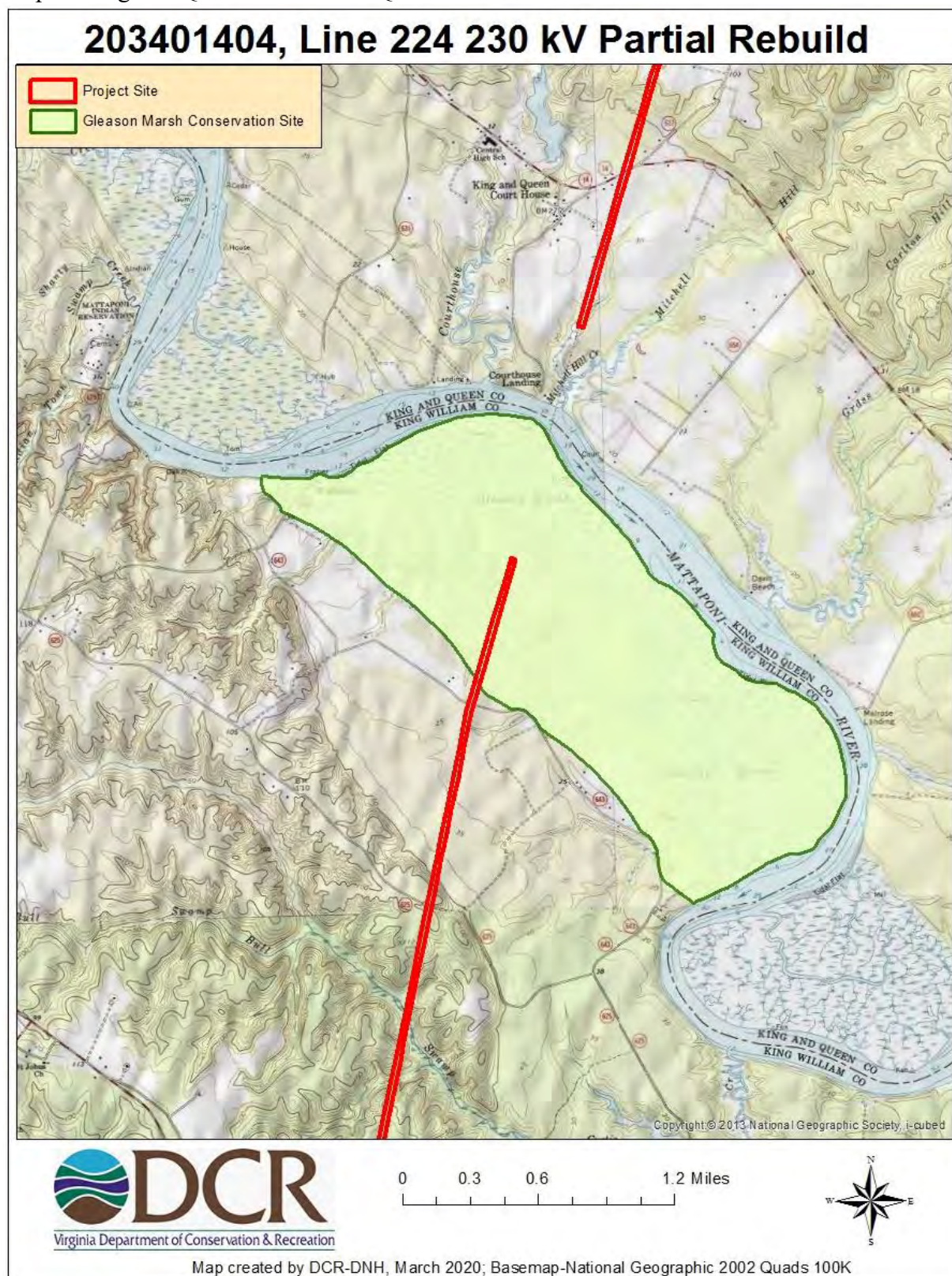


Map 2. Truhart Quad



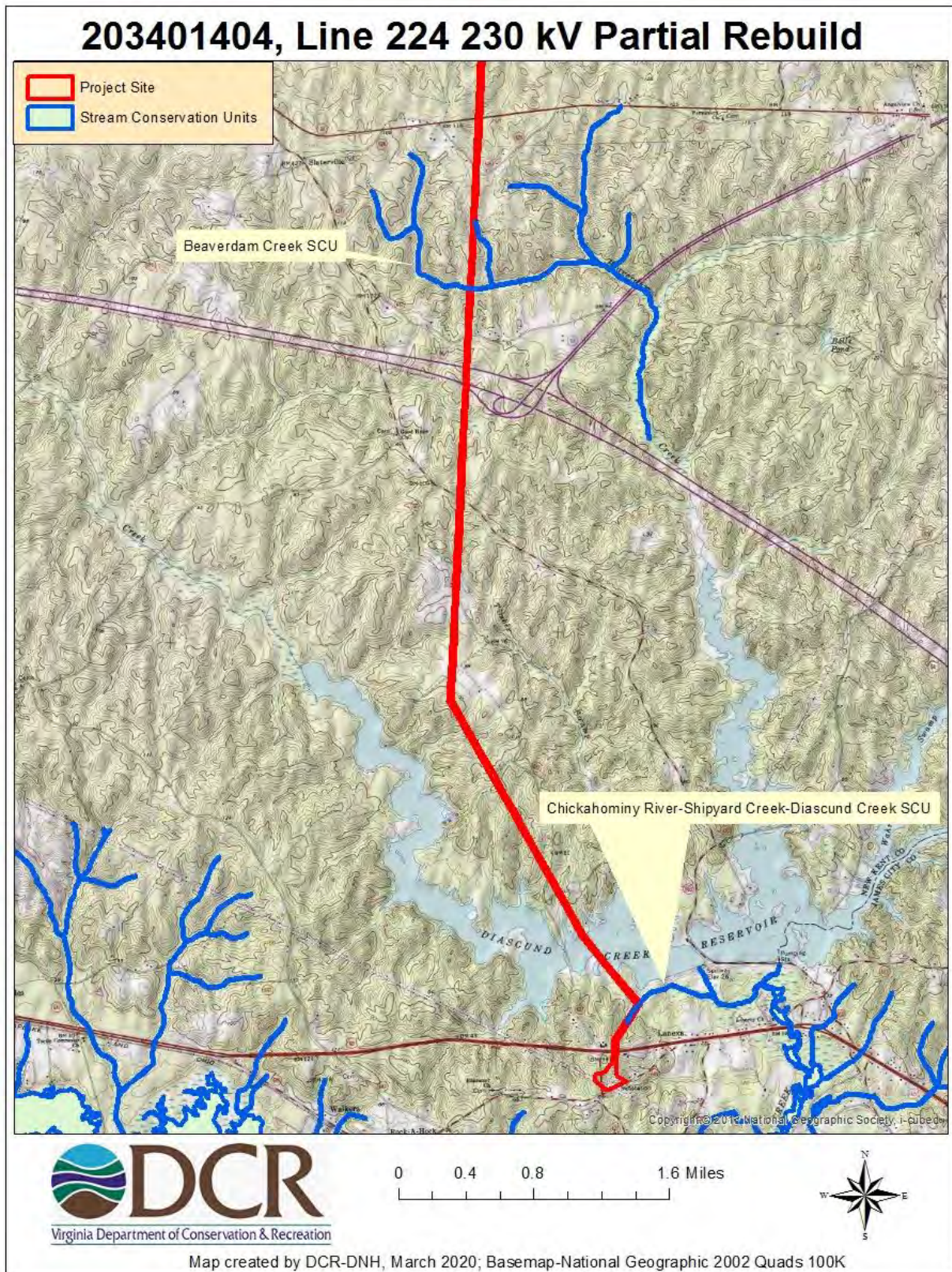


Map 3. King and Queen Courthouse Quad





Map 4. Walkers Quad







*Commonwealth of Virginia*

**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY**

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219

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Matthew J. Strickler  
Secretary of Natural Resources

David K. Paylor  
Director  
(804) 698-4000

August 13, 2019

Mr. Jason E. Williams  
Director Environmental Services  
Dominion Energy  
5000 Dominion Boulevard  
Glen Allen, VA 23060

*Transmitted electronically:* [jason.e.william@dominionenergy.com](mailto:jason.e.william@dominionenergy.com)

Subject: Dominion Energy (Electric Transmission) – Annual Standards and Specifications for Erosion & Sediment Control and Stormwater Management (AS&S for ESC and SWM)

Dear Mr. Williams:

The Virginia Department of Environmental Quality ("DEQ") hereby approves the Annual Standards and Specifications for Erosion & Sediment Control and Stormwater Management for Dominion Energy (Electric Transmission) dated "May 29, 2019". This coverage is effective from August 13, 2019 to August 12, 2020.

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 separately from this Annual Standards and Specifications submission to DEQ. DEQ may require project-specific plans associated with variance 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](mailto:StandardsandSpecs@deq.virginia.gov)
  - i: Project name or project number;
  - ii: Project location (including nearest intersection, latitude and longitude, access point);
  - iii: On-site project manager name and contact info;
  - iv: Responsible Land Disturber (RLD) name and contact info;
  - v: Project description;



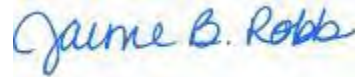
Dominion Energy (Electric Transmission) – AS&S for ESC and SWM  
August 12, 2019  
Page 2 of 2

- vi: Acreage of disturbance for project;
  - vii: Project start and finish date; and
  - viii: Any variances/exceptions/waivers associated with this project.
3. Project tracking of all regulated land disturbing activities (LDA) must be submitted to the DEQ on a bi-annual basis. 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 plan review and approval must be conducted by DEQ-Certified plan reviewers and documented in writing.

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

Thank you very much for your submission and continued efforts to conserve and protect Virginia's precious natural resources.

Sincerely,



Jaime B. Robb, Manager  
Office of Stormwater Management

Cc: Amelia Boschen, [Amelia.h.boschen@dominionenergy.com](mailto:Amelia.h.boschen@dominionenergy.com)  
Elizabeth Hester, [Elizabeth.l.hester@dominionenergy.com](mailto:Elizabeth.l.hester@dominionenergy.com)  
Stacey Ellis, [Stacey.t.ellis@dominionenergy.com](mailto:Stacey.t.ellis@dominionenergy.com)

Case Decision Information:

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.





# COMMONWEALTH of VIRGINIA

Matthew Strickler  
Secretary of Natural Resources

**Department of Historic Resources**  
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan  
Director

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[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

September 28, 2020

Mr. Lane Carr  
Dominion Energy Virginia  
10900 Nuckols Road 4<sup>th</sup> Floor  
Glen Allen, VA 23060

Re: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230 kV Transmission Line #224 Rebuild and New 230 kV Line Project, New Kent, King William, King and Queen, Essex, and Richmond Counties  
DHR File No. 2020-0439

Dear Mr. Carr:

Thank you for initiating consultation with DHR on the project referenced above. The project, as presented, consists of rebuilding approximately 38.3 miles of the 230 kV Lanexa-Northern Neck Line #224, the installation of 40.5 miles of new 230 kV Lanexa-Northern Neck Line collocated with Line #224, the installation of a new permanent substation in King and Queen County and the performance of additional work at the Lanexa, Dunnsville, and Northern Neck Substations. Our comments are provided as assistance to Dominion Energy Virginia (Dominion) in the preparation of an application to the State Corporation Commission (SCC). We reserve the right to provide additional comment through the Federal Section 106 process, if applicable.

A preliminary search of our Archives shows several properties listed, or eligible or potentially eligible for listing in the Virginia Landmarks Register (VLR) and National Register of Historic Places (NRHP) crossing the line or within one-half (1/2) mile of the line. Depending on the design specifics of the project, this project has the potential to both directly and indirectly affect significant historic resources. To aid in your assessment of potential impacts to historic resources and prior to finalizing Dominion's application to the SCC, we recommend that a pre-application analysis be prepared and submitted to DHR in accordance with Section I of the DHR's *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia*. Once an alternative is approved by the SCC, we are likely to recommend full architectural and archaeological studies and mitigation of all moderate to severe impacts to VLR/NRHP-eligible resources.

Seven federally-recognized tribes, the Chickahominy, Eastern Chickahominy, Pamunkey, Rappahannock, Upper Mattaponi, Catawba, and Delaware, claim ancestral ties to the general area, and recognize traditional cultural properties (TCP) in the vicinity of the project. DHR strongly encourages Dominion to reach out to the tribes to ensure full consideration of any concerns they may have about impacts to tribal resources. We also encourage Dominion to reach out to other Virginia tribes who may have cultural ties to the project area. Past and future correspondence with the tribes should be provided to DHR for our records. We can provide current contact information for the tribes if needed.

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Fax: (540) 868-7033



Page 2  
September 28, 2020  
DHR File No. 2020-0439

We look forward to working with Dominion throughout this project. If you have any questions, please do not hesitate to contact me at [Tim.Roberts@dhr.virginia.gov](mailto:Tim.Roberts@dhr.virginia.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Roberts", with a stylized flourish at the end.

Timothy Roberts, Project Review Archaeologist  
Review and Compliance Division

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**Stage I Pre-Application Analysis  
for The Proposed Dominion  
Energy Virginia Lanexa to  
Northern Neck 230kV  
Transmission Line Full Rebuild  
Project, New Kent, King William,  
King and Queen, Essex, and  
Richmond Counties, Virginia**

August 28, 2020

Prepared for:

Dominion Energy Virginia  
Attention: Lane Carr  
10900 Nuckols Road, 4th Floor  
Glen Allen VA 23060  
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Prepared by:

Sandra DeChard  
Senior Architectural Historian

and

Ellen Brady  
Cultural Resources Practice Leader

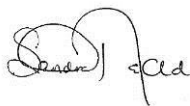
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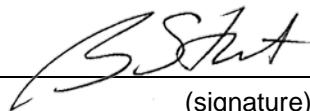
**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

This document entitled Stage I Pre-Application Analysis for The Proposed Dominion Energy Virginia Lanexa to Northern Neck 230kV Transmission Line Full Rebuild Project, New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Dominion Energy Virginia (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.



Prepared by \_\_\_\_\_  
(signature)

**Sandra DeChard, Senior Architectural Historian**



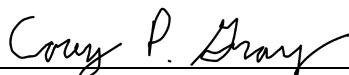
Reviewed by \_\_\_\_\_  
(signature)

**Brynn Stewart, Senior Principal Investigator**



Reviewed by \_\_\_\_\_  
(signature)

**Ellen Brady, Cultural Resources Practice Leader**



Approved by \_\_\_\_\_  
(signature)

**Corey Gray, Senior Associate**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

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**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
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**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

## **Executive Summary**

Stantec Consulting Services Inc. (Stantec) was retained by Dominion Energy Virginia (Dominion Energy) to conduct a Stage I Pre-Application Analysis for the proposed rebuilding of Line #224 and the addition of a second 230 kV circuit from the existing Lanexa Substation to the existing Northern Neck Substation (Rebuild Project) in New Kent, King William, King and Queen, Essex, and Richmond counties, Virginia. In order to maintain the structural integrity and reliability of its transmission system and perform needed maintenance on its existing facilities, Dominion Energy proposes to rebuild, pending final approval by the State Corporation Commission (SCC), entirely within existing right-of-way (ROW), approximately 38.3 miles of existing transmission line. Dominion Energy proposes to remove existing wood H-frame and lattice transmission structures, associated foundations, and overhead conductor wire and replace with weathering steel monopole and galvanized steel lattice structures with double-circuit 230 kV conductor wire as part of the rebuild project.

A second 230 kV circuit totaling 1.7 miles will be added to the existing double circuit structures at the Pamunkey River crossing. The structures crossing Pamunkey River, previously addressed in the report entitled *Stage 1 Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line. Pamunkey River Crossing, King William and New Kent Counties, Virginia* will have 1.7 miles of a second 230 kV circuit added as part of the Rebuild Project. The structures, which were part of the previous Stage 1 report, have already received SCC approval without the addition of the second circuit. Due to the nature of the installation, it is recommended that the addition of the circuit will not significantly change the viewshed from the resources under consideration. A second 230 kV circuit is already present on double circuit structures for 1.3 miles at the Mattaponi River Crossing, which was addressed in the report entitled *Stage I Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line, Mattaponi Crossing, King and Queen and King William Counties, Virginia*. The SCC approved the construction of these structures and both 230 kV circuits.

Background research for the Stage I Pre-Application Analysis was conducted in January 2020 by Stantec staff. The preliminary background research and a field study was conducted pursuant to the *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (Virginia Department of Historic Resources [VDHR] 2008) for proposed transmission line improvements. As detailed by VDHR guidance, consideration was given to National Historic Landmark (NHL) properties located within a 1.5-mile radius of the project centerline; National Register of Historic Places (NRHP)-listed properties, Battlefields, and Historic Landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible sites located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW. Eight previously recorded architectural resources were identified for inclusion in the Stage I analysis. Additionally, one previously recorded archaeological resource within the ROW was identified during this phase of the project.





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

**Recommendations**

*Architectural Resources*

Three NRHP-listed resources, the King and Queen County Courthouse Green Historic District (VDHR #049-5001), Sweet Hall (VDHR #050-0067), and Ruffin's Ferry (VDHR #050-0070) were identified within 1.0 mile and three NRHP-eligible resources, Immanuel Chapel (VDHR #049-0035), the King and Queen County Courthouse (VDHR #049-0036), and Rose Garden (VDHR #049-0064) were identified within 0.5 mile of the centerline of the proposed project. A single battlefield was also identified, the NRHP-eligible Mantapike Hill/Walkerton Battlefield (VDHR #049-5007), which also falls within 1.0 mile. Additionally, the boundaries of Sweet Hall (VDHR #050-0067) and Ruffin's Ferry (VDHR #050-0070) are within or immediately adjacent to the ROW. As the study was completed prior to filing a SCC application, all digital images were taken from public ROW and/or Dominion Energy property easements.

***Based on preliminary structure heights, the proposed Rebuild Project would increase the height of the structures approximately 21 to 56 (maximum) feet for the proposed monopole structures. Based on the analysis, it is recommended that the rebuild would have No Visual Impact to the Immanuel Chapel (VDHR #049-0035) and Rose Garden (VDHR #049-0064). The proposed Rebuild Project would have a Minimal Impact to the King and Queen County Court House (VDHR #049-0036), the Mantapike Hill/Walkerton Battlefield (VDHR #049-5007), Sweet Hall (VDHR #050-0067), Ruffin's Ferry (VDHR #050-0070), and the Captain John Smith Chesapeake National Historic Trail and have a Moderate Visual Impact to the Courthouse Green Historic District (VDHR #049-5001).***

**Previously Recorded Architectural Resources Considered within the Stage I Pre-Application Process**

VDHR #	Resource Name	VDHR/NRHP Status	Distance to Centerline (Feet)	Impact
049-0035	Immanuel Chapel, 190 Allens Circle	Determined Eligible by VDHR in 2006 and 2019	1,336	None
049-0036	King and Queen County Court House, Court House Landing Road	Determined Eligible by VDHR in 1994	1,208	Minimal
049-0064	Rose Garden, Carlton's Corner Road	Determined Eligible by VDHR in 2000	2,062	None
049-5001	King and Queen County Courthouse Green Historic District	NRHP-Listed 2014	662	Moderate
049-5007	Mantapike Hill/Walkerton Battlefield	Determined Eligible by VDHR in 2016	256	Minimal
050-0067	Sweet Hall, Route 634	NRHP-Listed 1977	229	Minimal
050-0070	Ruffin's Ferry/Windsor Shade, 1685 Sweet Hall Road	NRHP-Listed 1978	1,130	Minimal
N/A	Captain John Smith Chesapeake National Historic Trail	Not Evaluated within the APE	0	Minimal





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

*Archaeological Resources*

One previously recorded archaeological resource was identified during the background research. An archaeological survey of the ROW during the Stage II analysis is recommended.

**Previously Recorded Archaeological Resources Located adjacent to the Project Limits**

<b>VDHR ID</b>	<b>Resource Type</b>	<b>VDHR/NRHP Status</b>	<b>Distance to Line (FT)</b>	<b>Recommendation</b>
44RD0025	Woodland	Not Evaluated	0	Avoid During Construction or Investigate During Archaeological Survey





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

## **Abbreviations**

ABPP	American Battlefield Protection Program
amsl	Above Mean Sea Level
DEM	Digital Elevation Model
DSM	Digital Surface Model
Dominion Energy	Dominion Energy Virginia
kV	Kilovolt
NERC	North American Electric Reliability Corporation
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PotNR	Potential National Register
ROW	Right-of-Way
SCC	State Corporation Commission
Stantec	Stantec Consulting Services, Inc.
USDI	United States Department of the Interior
V-CRIS	Virginia Cultural Resources Information System
VLR	Virginia Landmarks Register
VDHR	Virginia Department of Historic Resources





# STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

## 1.0 INTRODUCTION

### 1.1 OVERVIEW

Stantec Consulting Services Inc. (Stantec) was retained by Dominion Energy Virginia (Dominion Energy) to conduct a Stage I Pre-Application Analysis for the proposed rebuilding of Line #224 and the addition of a second 230 kV circuit from the existing Lanexa Substation to the existing Northern Neck Substation (Rebuild Project) in New Kent, King William, King and Queen, Essex, and Richmond counties, Virginia. In order to maintain the structural integrity and reliability of its transmission system and perform needed maintenance on its existing facilities, Dominion Energy proposes to rebuild, pending final approval by the State Corporation Commission (SCC), entirely within existing right-of-way (ROW), approximately 38.3 miles of existing transmission line. Dominion proposes to remove existing wood H-frame and lattice transmission structures, associated foundations, and overhead conductor wire and replace with weathering steel monopole and galvanized steel lattice structures with double-circuit 230 kV conductor wire as part of the rebuild project.

A second 230 kV circuit totaling 1.7 miles will be added to the existing double circuit structures at the Pamunkey River crossing. The structures crossing the Pamunkey River, previously addressed in the report entitled *Stage 1 Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line. Pamunkey River Crossing, King William and New Kent Counties, Virginia* will have 1.7 miles of a second 230 kV circuit added as part of the Rebuild Project. The structures, which were part of the previous Stage 1 report, have already received SCC approval without the addition of the second circuit and have been constructed. Due to the nature of the installation, it is recommended that the addition of the circuit will not significantly change the viewshed from the resources under consideration. A second 230 kV circuit is already present on double circuit structures for 1.3 miles at the Mattaponi River Crossing, which was addressed in the report entitled *Stage I Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line, Mattaponi Crossing, King and Queen and King William Counties, Virginia*. The SCC approved the construction of these structures and both 230 kV circuits. Additionally, Dominion Energy proposes to make the temporary King and Queen Substation built to support the construction of the Mattaponi River crossing permanent under this Rebuild Project.

**Table 1 Summary of Structures for the Proposed Rebuild Project within the Radii of Historic Resources**

Structure No.	Height (FT) Existing	Height (FT) Proposed	Approximate Change in Height (FT)	Existing/Proposed Structure Type
224/46	65.5	111.5	46	H-frame/Monopole
224/47	61	101.5	40.5	H-frame/Monopole
224/48	61	101.5	40.5	H-frame/Monopole
224/49	56.5	101.5	45	H-frame/Monopole
224/50	61	101.5	40.5	H-frame/Monopole





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

<b>Structure No.</b>	<b>Height (FT) Existing</b>	<b>Height (FT) Proposed</b>	<b>Approximate Change in Height (FT)</b>	<b>Existing/Proposed Structure Type</b>
224/51	65.5	106.5	41	Wooden 3-Pole/Steel 2-Pole
224/52	146.5	146.5	0	Lattice/Lattice
224/53	180.5	180.5	0	Lattice/Lattice
224/54	190.5	190.5	0	Lattice/Lattice
224/55	191	191	0	Lattice/Lattice
224/56	190	190	0	Lattice/Lattice
224/57	190	190	0	Lattice/Lattice
224/58	159	159	0	Lattice/Lattice
224/59	156	156	0	Lattice/Monopole
224/60	65.5	101.5	36	H-frame/Monopole
224/61	70	111.5	41.5	H-frame/Monopole
224/62	70	116.5	46.5	H-frame/Monopole
224/63	65.5	111.5	46	H-frame/Monopole
224/64	65.5	101.5	40.5	H-frame/Monopole
224/65	70	111.5	41.5	H-frame/Monopole
224/140	65.5	111.5	46	H-frame/Monopole
224/141	65.5	111.5	46	H-frame/Monopole
224/142	52	101.5	49.5	H-frame/Monopole
224/143	61	116.5	55.5	H-frame/Monopole
224/144	61	101.5	40.5	H-frame/Monopole
224/145	61	111.5	50.5	H-frame/Monopole
224/146	61	101.5	40.5	H-frame/Monopole
224/147	65.5	111.5	46	H-frame/Monopole
224/148	52	96.5	44.5	H-frame/Monopole
224/149	70	116.5	46.5	H-frame/Monopole
224/150	63.5	116.5	53	H-frame/Monopole
224/151	70	91.5	21.5	H-frame/Monopole
224/152	52	106.5	54.5	H-frame/Monopole
224/153	61	106.5	45.5	H-frame/Monopole
224/154	52	101.5	49.5	H-frame/Monopole
224/168	61	106.5	45.5	H-frame/Monopole
224/169	61	101.5	40.5	H-frame/Monopole
224/170	61	116.5	55.5	H-frame/Monopole
224/171	52	101.5	49.5	H-frame/Monopole
224/172	52	96.5	44.5	H-frame/Monopole
224/173	70	111.5	41.5	H-frame/Monopole





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

Structure No.	Height (FT) Existing	Height (FT) Proposed	Approximate Change in Height (FT)	Existing/Proposed Structure Type
224/174	74.5	121.5	47	H-frame/Monopole
224/175	72	111.5	39.5	H-frame/Monopole
224/176	70	111.5	41.5	H-frame/Monopole
224/177	61	106.5	45.5	H-frame/Monopole
224/178	70	116.5	46.5	H-frame/Monopole
224/179	70	111.5	41.5	H-frame/Monopole
224/180	111.5	N/A	N/A	Rebuilt Under Separate Authorization
224/181	105	N/A	N/A	Rebuilt Under Separate Authorization
224/182	180	N/A	N/A	Rebuilt Under Separate Authorization
224/183	180	N/A	N/A	Rebuilt Under Separate Authorization
224/218	65.5	111.5	46	H-frame/Monopole
224/219	65.5	101.5	36	H-frame/Monopole
224/220	70	116.5	46.5	H-frame/Monopole
224/221	65.5	106.5	41	H-frame/Monopole
224/222	56.5	106.5	50	H-frame/Monopole
224/223	65.5	111.5	46	H-frame/Monopole
224/224	70	111.5	41.5	H-frame/Monopole
224/225	70	116.5	46.5	H-frame/Monopole
224/226	65.5	106.5	41	H-frame/Monopole
224/226	65.5	106.5	41	Weathering Steel 3-pole/Monopole
224/227	105	N/A	N/A	Rebuilt in 2019
224/228	180	N/A	N/A	Rebuilt in 2019
224/229	180	N/A	N/A	Rebuilt in 2019
224/230	150	N/A	N/A	Rebuilt in 2019
224/231	150	N/A	N/A	Rebuilt in 2019
224/232	150	N/A	N/A	Rebuilt in 2019

Note: This information is preliminary and subject to final engineering. Heights do not include foundation reveal.

## 1.2 STAGE I PRE-APPLICATION ANALYSIS

The *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (Virginia Department of Historic Resources [VDHR] 2008) were developed by the VDHR to assist the SCC and their applicants to address and minimize potential impacts to historic resources associated with the construction of large-scale transmission lines and associated facilities. In consideration to the general project design, as described above, and other elements associated with the proposed undertaking, including current ROW conditions





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within the proposed project area, Stantec designed the present study to identify all previously recorded architectural and archaeological resources requiring inclusion in a formal Stage I Pre-Application Analysis, as defined by the 2008 *Guidelines*.

As detailed by VDHR guidance, consideration was given to National Historic Landmark (NHL) properties located within a 1.5-mile radius of the project centerline; National Register of Historic Places (NRHP)-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible sites located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW. No NHL-listed architectural resources are located within the 1.5-mile buffer. Three NRHP-listed resources, the King and Queen County Courthouse Green Historic District (VDHR #049-5001), Sweet Hall (VDHR #050-0067), and Ruffin's Ferry (VDHR #050-0070) were identified within 1.0 mile and three NRHP-eligible resources, Immanuel Chapel (VDHR #049-0035), the King and Queen County Courthouse (VDHR #049-0036), and Rose Garden (VDHR #049-0064) were identified within 0.5 mile. A single battlefield was also identified, the NRHP-eligible Mantapike Hill/Walkerton Battlefield (VDHR #049-5007), which also falls within 1.0 mile. Additionally, the boundaries of Sweet Hall (VDHR #050-0067) and Ruffin's Ferry (VDHR #050-0070) are within or immediately adjacent to the ROW with one archaeological site identified within the 100-foot transmission line ROW. As the study was completed prior to filing an SCC application, all digital images were taken from public ROW and/or Dominion Energy property easements.

This document also includes a computer viewshed analysis to address potential views from the eight resources identified pursuant to the guidance of the VDHR for the proposed Rebuild Project. Additionally, the nationally designated Captain John Smith Chesapeake National Historic Trail crosses the ROW at the Mattaponi, Pamunkey, and Rappahannock rivers. VDHR has determined that the Pamunkey section of the trail is not eligible for listing on the NRHP. The remaining sections of the trail have not been evaluated by VDHR for NRHP eligibility.

This Stage I Pre-Application Analysis project was directed by Cultural Resources Practice Leader Ellen Brady and the report authored by Senior Architectural Historian Sandra DeChard. The visual effects evaluation was conducted by Sandra DeChard and Architectural Historian Technician Jody Kutzler. GIS Coordinator Perron Singleton prepared the report graphics and project maps.





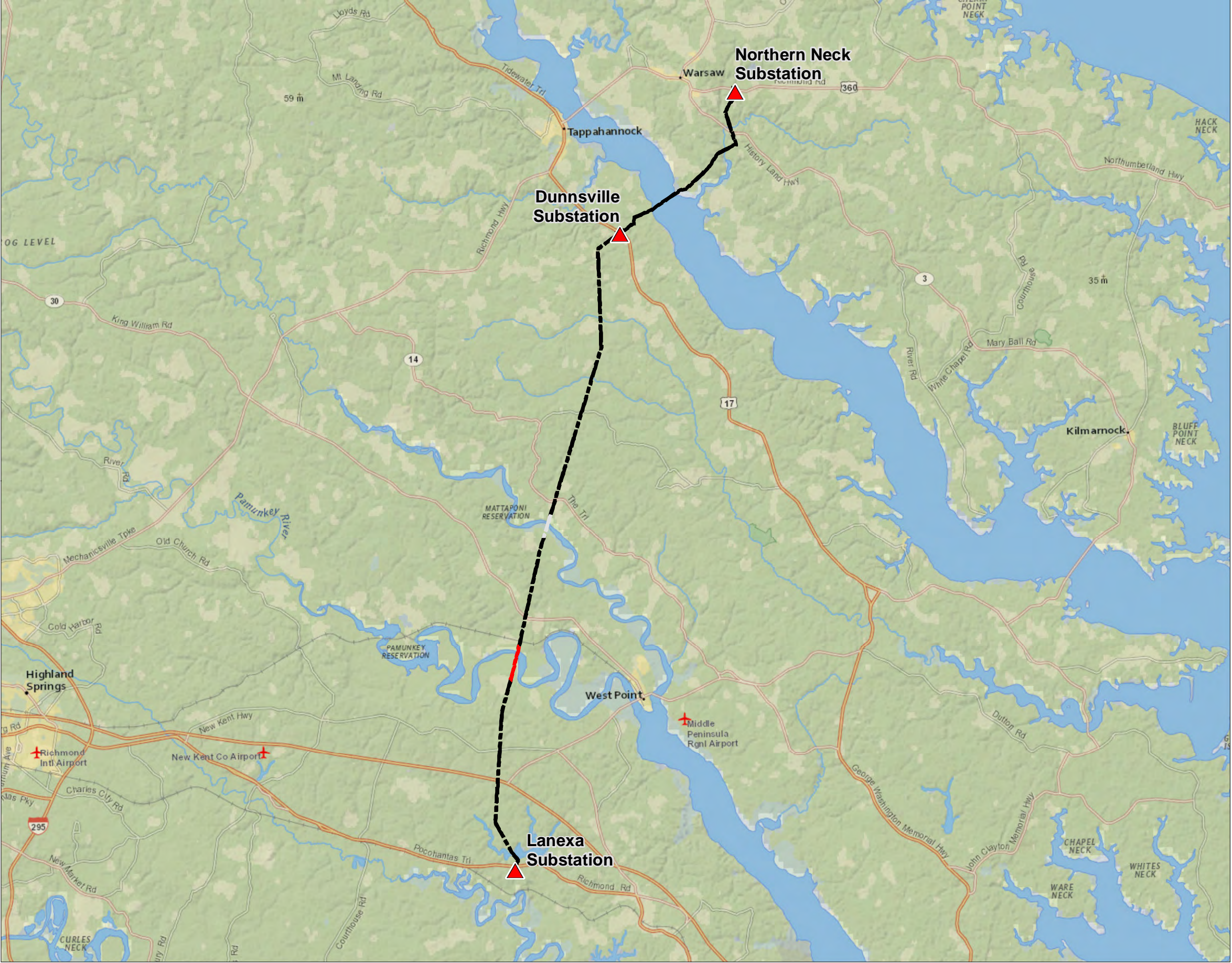
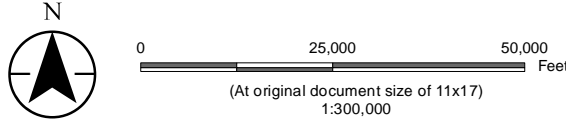


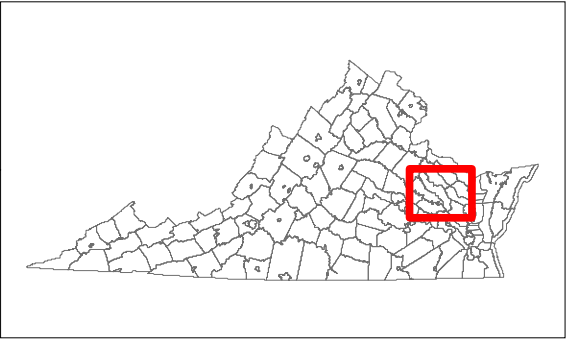
Figure No. 1  
Title Project Location Map

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by TPS on 2020-04-02  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Substation
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)

Start:  
Latitude: 37.420439°  
Longitude: -76.912421°  
  
Terminus:  
Latitude: 37.948762°  
Longitude: -76.712332°



- Notes
- 1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
  - 2. Data Sources: Dominion Energy Virginia, Stantec
  - 3. Base Map © National Geographic



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# STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

## 2.0 BACKGROUND RESEARCH

As part of the Stage I Pre-Application Analysis effort, VDHR guidance recommends a four-tier study area strategy to be considered for each alternative alignment for the proposed undertaking (Table 2).

**Table 2 Study Areas as Defined by VDHR Guidelines for Transmission Lines**

Radial Buffer (in miles)	Considered Resources
1.5	National Historic Landmarks
1.0	Above resources and: National Register Properties (listed), Battlefields, Historic Landscapes (e.g. Rural HD)
0.5	Above resources and: National Register-eligible (as determined by VDHR)
0.0 (Within ROW)	Above resources and Archaeological Sites

The background research included a review of the VDHR archives and of data collected from the VDHR's Virginia Cultural Resource Information System (V-CRIS) database using the most current data as provided by the VDHR. The VDHR files of archaeological sites and historic structures were examined and information was retrieved on all archaeological sites located up to a 0.5-mile radius of the project area and all previously recorded architectural resources up to a 1.5-mile radius of the project centerline. ESRI ArcGIS Online aerial photography of current conditions was examined for the entire study area. Photographs of each of the architectural resources under consideration, if visible, as well as their view sheds, were taken from the public ROW.

## 2.1 RESULTS OF THE BACKGROUND RESEARCH

### 2.1.1 Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile buffer. Three NRHP-listed resources, the King and Queen County Courthouse Green Historic District (VDHR #049-5001), Sweet Hall (VDHR #050-0067), and Ruffin's Ferry (VDHR #050-0070) were identified within 1.0 mile and three NRHP-eligible resources, Immanuel Chapel (VDHR #049-0035), the King and Queen County Courthouse (VDHR #049-0036), and Rose Garden (VDHR #049-0064) were identified within 0.5 mile. A single battlefield was also identified, the NRHP-eligible Mantapike Hill/Walkerton Battlefield (VDHR #049-5007), which also falls within 1.0 mile. Additionally, the boundaries of Sweet Hall (VDHR #050-0067) and Ruffin's Ferry (VDHR #050-0070) are within or immediately adjacent to the ROW with one archaeological site identified within the 100-foot transmission line ROW. Additionally, the nationally designated Captain John Smith Chesapeake National Historic Trail crosses the ROW at the Mattaponi, Pamunkey, and Rappahannock rivers. VDHR has determined that the Pamunkey section of the trail is not eligible for listing on the NRHP. The remaining sections of the trail have not been evaluated by VDHR for NRHP eligibility (Appendix B; Table 3).





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

**Table 3 Previously Recorded Architectural Resources Considered for the Stage I Pre-Application Process**

VDHR #	Resource Name	VDHR/NRHP Status	Distance to Centerline (Feet)
049-0035	Immanuel Chapel, 190 Allens Circle	Determined Eligible by VDHR in 2006 and 2019	1,336
049-0036	King and Queen County Court House, Court House Landing Road	Determined Eligible by VDHR in 1994	1,208
049-0064	Rose Garden, Carlton's Corner Road	Determined Eligible by VDHR in 2000	2,062
049-5001	King and Queen County Courthouse Green Historic District	NRHP-Listed 2014	662
049-5007	Mantapike Hill/Walkerton Battlefield	Determined Eligible by VDHR in 2016	256
050-0067	Sweet Hall, Route 634	NRHP-Listed 1977	229
050-0070	Ruffin's Ferry/Windsor Shade, 1685 Sweet Hall Road	NRHP-Listed 1978	1,130
N/A	Captain John Smith Chesapeake National Historic Trail	Not Evaluated within the APE	0

## 2.1.2 Archaeological Resources

One previously recorded archaeological resource was identified during the background research. The Woodland site (44RD0025) has not been evaluated for NRHP eligibility by VDHR (Appendix D; Table 4). A visual effects evaluation is not required for archaeological resources for this study.

**Table 4 Previously Recorded Archaeological Resources Located adjacent to the Project Limits**

VDHR ID	Resource Type	VDHR/NRHP Status	Distance to Line (FT)
44RD0025	Woodland	Not Evaluated	0

## 3.0 STAGE I PRE-APPLICATION ANALYSIS RESULTS

### 3.1 VISUAL EFFECTS METHODOLOGY

Fieldwork for the proposed transmission line project was undertaken by Stantec's Senior Architectural Historian Sandra DeChard and Architectural Historian Technician Jody Kutzler on February 10, 2020. The fieldwork for the assessment entailed photographing the resources requiring viewshed analysis according





## STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

to the Stage I Pre-Application review process and examined the potential views from the resources towards the proposed transmission line improvements. As the fieldwork was conducted prior to a formal SCC application submittal, all photographs were taken from public ROW locations with aerial photography utilized to supplement the analysis of project visibility and potential visual effects. To further assess the potential visual impacts to the resources under consideration, photo simulations of the proposed structures were also prepared (Appendix C). As the proposed line is a rebuild of existing transmission lines and the proposed new lines will be located within the current alignment, the existing lines were utilized to assist with the assessment of potential visual effects.

A detailed viewshed was modeled for the existing and proposed structures. This analysis required the creation of two datasets: a digital elevation model (DEM) which provided base ground elevations and a digital surface model (DSM) which provided overall terrain elevations including tree canopy. The DEM utilized was a 1/3 arc second elevation model downloaded from the U. S. Geological Survey (USGS). To create the DSM, the Virginia Statewide Landcover Dataset, provided by the Virginia Geographic Information Network, was used to identify areas covered by tree canopy. Those areas were then given a constant value of 75 feet, which was added to the ground elevation to account for the typical mature forest heights found in the area. Using the existing structure heights and preliminary proposed structure heights provided by Dominion Energy, two viewshed analyses were run using these datasets to determine where the existing and proposed towers are or will be visible in the landscape surrounding the project ROW. The visibility is illustrated by three color shadings:

- orange where both existing and proposed structures are/will be visible,
- red where the existing structures are visible but the proposed structures will not be, and
- blue where the existing structures are not visible but the proposed structures will be.

### 3.2 INDIVIDUAL ARCHITECTURAL RESOURCES CONSIDERED

Five individual resources; the Immanuel Chapel (VDHR #049-0035), King and Queen County Court House (VDHR #049-0036), Rose Garden (VDHR #049-0064), Sweet Hall (VDHR #050-0067), and Ruffin's Ferry/Windsor Shade (VDHR #050-0070) were located within the 1.0-mile radius of the ROW and were therefore considered for visual effects per VDHR guidelines. The resources are further described below along with a discussion and recommendation of potential effects as a result of the project.

#### 3.2.1 Immanuel Chapel (VDHR #049-0035/049-5001-0010)

The Immanuel Chapel, constructed in 1884, is an example of a small Carpenter Gothic frame church (Figure 2). The exterior walls feature board-and-batten wood siding with the steeply pitched roof clad in standing seam metal. The chapel also features gable end returns, a gable roofed hood over the entry door, exterior brick flue, one-story apse, and narrow wood sash windows on the side elevations. Secondary resources include two cemeteries. The earliest interment for the original section dates to 1888 with the newer cemetery dating to approximately 1912. The chapel was determined individually eligible for listing by VDHR in 1997, 1998, and 2006 and considered a contributing resource to the King and





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Queen County Court House Historic District (VDHR #049-5001), which was listed to the NRHP in 2014 (VDHR Site Files).



**Figure 2 Immanuel Chapel (VDHR #049-0035), 190 Allens Circle, View Looking North.**

### 3.2.1.1 Visual Effect Assessment

The Immanuel Chapel is located within 0.5 mile to the northwest of the transmission line ROW (Appendix B) and at its closest point, is approximately 1,336 feet from the proposed Rebuild Project. The building sits perpendicular to the road on a slight rise in the landscape. An area of woods is located to the north and northwest of the church with a tree line along the east and west sides of Allens Circle, which shields the resource from the existing transmission line. Within view of the church to the southeast is the modern King and Queen Courthouse building. Under current conditions, the existing transmission line, which ranges in height from approximately 61 to 75 feet in the vicinity of the chapel (Structure #224/174 through #224/179), was not visible from the resource (Figures 3–5). Based upon Dominion Energy Engineering's preliminary design, the proposed structures in the section of the line nearest to the resource will range in height from approximately 106 to 122 feet with an increase in height ranging from approximately 39 to 47 feet. The Project Rebuild will be constructed within the existing transmission line corridor.

The viewshed modeling indicated both the existing and proposed structures will not be visible from the resource (Figure 6). Based on the fieldwork, the preliminary heights of the proposed structures, and the viewshed modeling for the resource, ***it is recommended that the proposed transmission line rebuild project would have No Visual Impact on the Immanuel Chapel (VDHR #049-0035).***





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**Figure 3 View from Photo Location 1, Immanuel Chapel (VDHR #049-0035) and the Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) Looking Northeast towards the Rebuild Project. Existing Transmission Line is Not Visible.**



**Figure 4 View from Photo Location 1, Immanuel Chapel (VDHR #049-0035) and the Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) Looking East towards the Rebuild Project. Existing Transmission Line is Not Visible.**





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**Figure 5 View from Photo Location 1, Immanuel Chapel (VDHR #049-0035) and the Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) Looking Southeast towards the Rebuild Project and Modern Courthouse Building. Existing Transmission Line is Not Visible.**





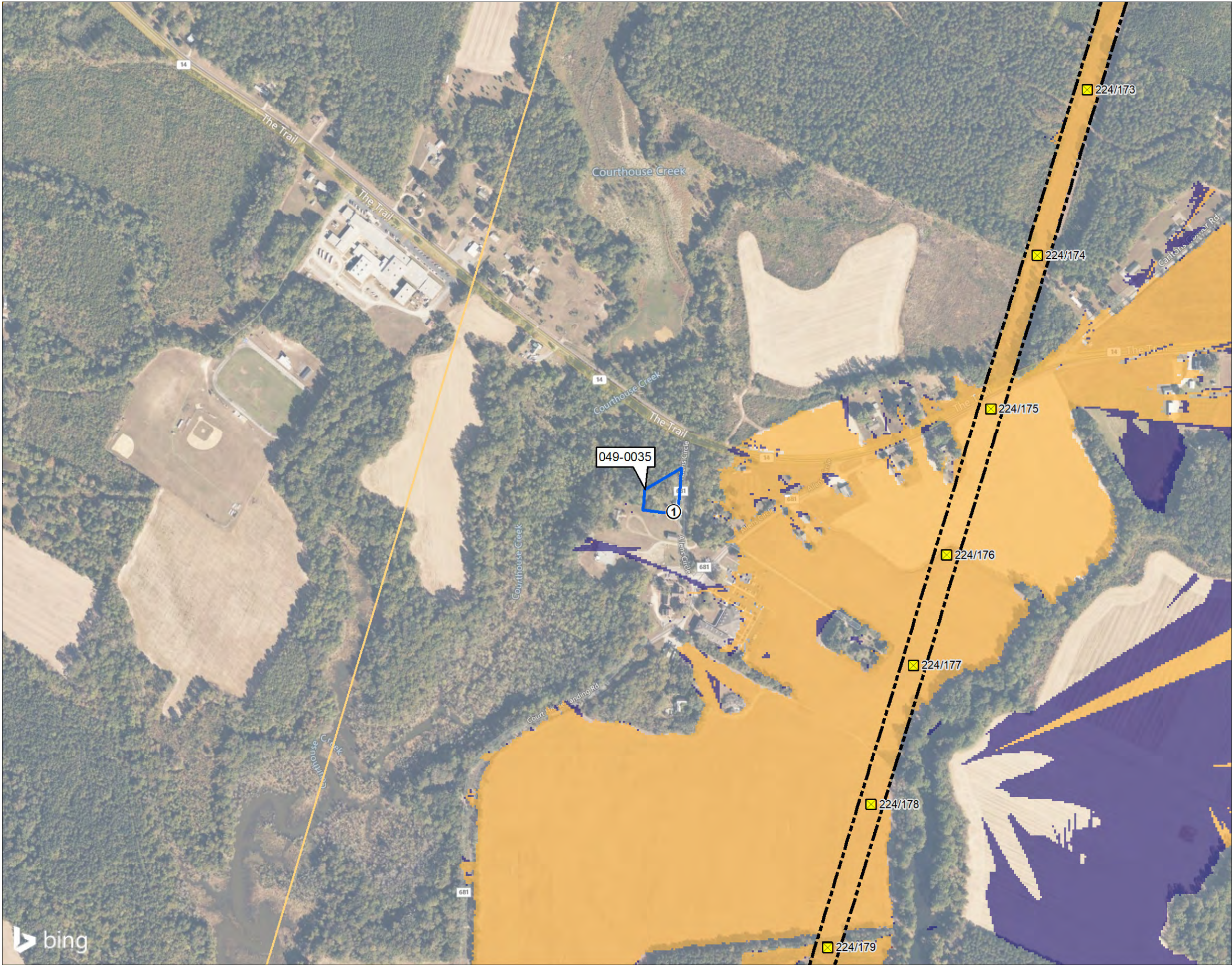
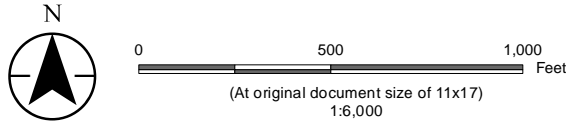


Figure No.  
**6**  
Title  
**Viewshed Analysis and Photo Location Map  
for Immanuel Chapel (VDHR #049-0035)**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR  
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis  
5. Orthomimagery © Bing Maps





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### **3.2.2 King and Queen County Courthouse (VDHR #049-0036/049-5001-0008)**

The courthouse is a one-and-a-half-story, cruciform-plan building with brick exterior walls laid in a Flemish bond pattern. The building also features a cross-gable roof clad in asphalt shingles (Figure 7). The original c. 1750 building burned in 1828 and again in 1864. In the later decades of the nineteenth century, the building was expanded. The building was enlarged again in 1957 with the addition of the gable-roofed ell. Additional architectural features include exterior and interior brick chimneys, an arched, fixed window over the entry, and nine-over-nine double-hung sash windows. The King and Queen Courthouse was determined eligible for listing on the NRHP in 1994 by VDHR for its contribution to broad patterns in history (Criterion A) and under Criterion C for its architectural merit (VDHR Site Form).



**Figure 7 King and Queen County Courthouse (VDHR #049-0036), View Looking West.**

#### **3.2.2.1 Visual Effect Assessment**

The King and Queen County Courthouse is located to the northwest and within 0.5 mile of the transmission line ROW (Appendix B). At its closest point, the resource is approximately 1,208 feet from the proposed Rebuild Project. The building sits adjacent to the road at the intersection of Court House Landing Road and Allens Circle. To the northwest is a radio tower and to the southeast, between the existing transmission line and the resource, a modern courthouse and administration building has been constructed. The landscape to the southeast, east, and northeast of the resource, looking towards the existing line, is mainly open fields. Under current conditions, the existing transmission line, which ranges in height from approximately 61 to 75 feet in the vicinity of the courthouse (Structure #224/174 through





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#224/179), was only visible from the resource to the east (Structure #224/176). The modern courthouse built across the street shields the view of the transmission line to the southeast (Figures 8 and 9). Based upon Dominion Energy's preliminary design, the proposed structures in the section of the line nearest to the resource will range in height from approximately 106 to 122 feet with an increase in height ranging from approximately 39 to 47 feet. The Rebuild Project will be constructed within the existing transmission line corridor.

The viewshed modeling indicated the existing structures are not visible from the resource with the exception of a narrow viewshed directly in front of the building. The proposed structure will also be visible from the same area (Figure 10). Although the increase in height of the visible structures, the most visible being Structure #224/176 with an increase in approximately 41 feet, the infrastructure, particularly the streetlights in the foreground, diminishes the change in height of the proposed structures (Appendix C – KOP 3). As such, the overall visual impact of the proposed structures will not greatly change from the existing conditions in the vicinity of this resource. Based on the fieldwork, the photosimulations, and the viewshed modeling for the resource, ***it is recommended that the proposed transmission line rebuild project would have Minimal Visual Impact on the King and Queen County Courthouse (VDHR #049-0036).***



**Figure 8 View from Photo Location 5, King and Queen County Courthouse (VDHR #049-0036) and the King and Queen County Courthouse Green Historic District (VDHR #049-5001) Looking Southeast towards the Rebuild Project. Existing Transmission Line is Not Visible.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



**Figure 9 View from Photo Location 5, King and Queen County Courthouse (VDHR #049-0036) and the King and Queen County Courthouse Green Historic District (VDHR #049-5001) Looking East towards the Rebuild Project. Existing Transmission Line is Visible.**





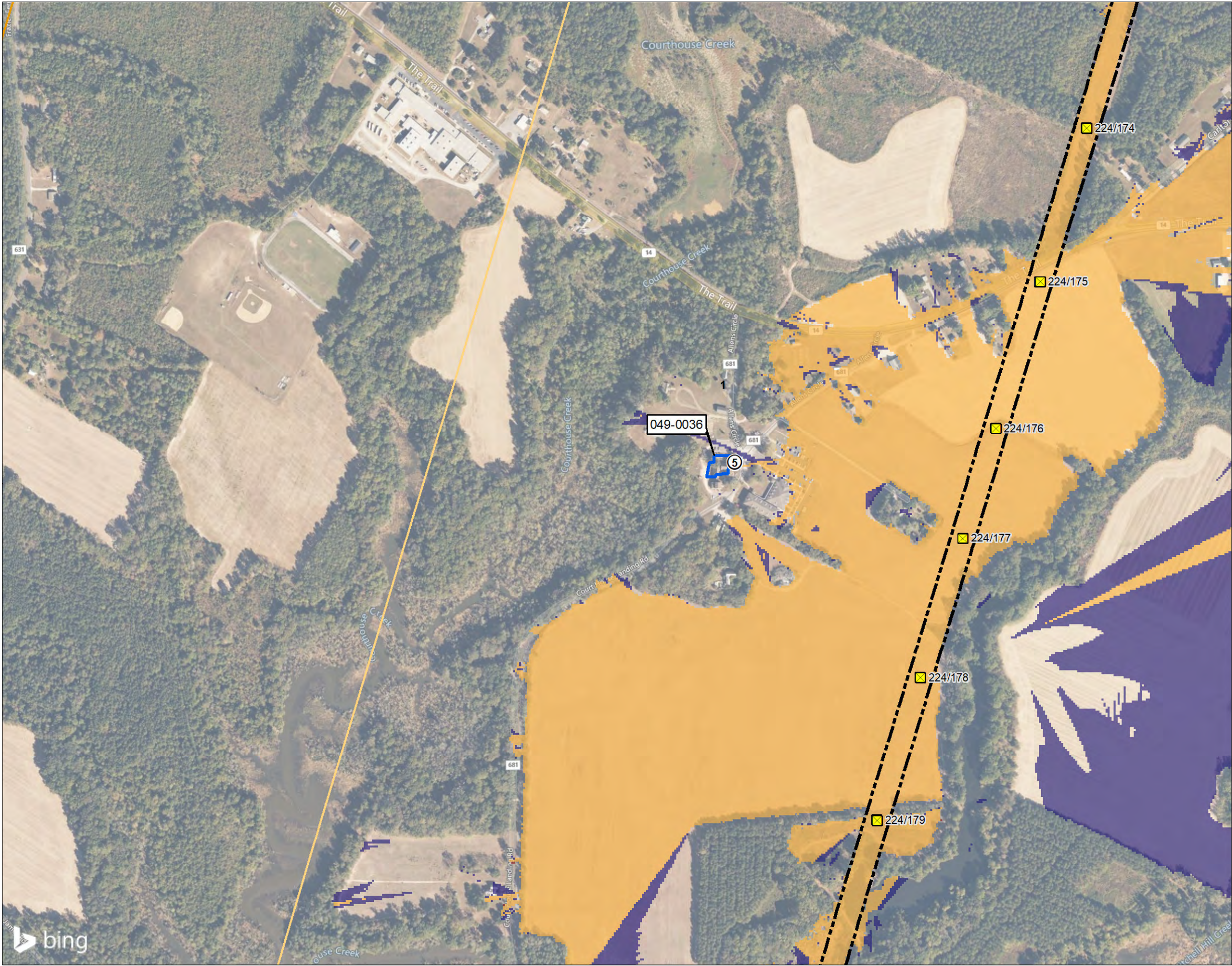
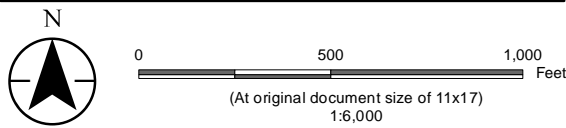


Figure No. 10  
Title Viewshed Analysis and Photo Location Map for King and Queen County Courthouse (VDHR #049-0036)

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR  
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis  
5. Orthoimagery © Bing Maps





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

### 3.2.3 Rose Garden (VDHR #049-0064)

Rose Garden is a c. 1825 two-story, Federal dwelling with gable roof. Architectural features noted during the 1999 survey for the Preliminary Information Form (PIF) included weatherboard siding, interior brick chimney with corbelled cap, a brick foundation, a one-story porch, and eight-over-eight wood double-hung sash windows (Figure 11). Secondary resources on the property at the time of the 1999 survey included a barn, smokehouse, and stable. Rose Garden was determined eligible for listing on the NRHP by VDHR in 2000 under Criterion C for its architectural merit (VDHR Site Files). The house is currently vacant and the outbuildings in disrepair.



**Figure 11 Rose Garden (VDHR #049-0064), Carlton's Corner Road, View Looking Northwest.**

#### 3.2.3.1 Visual Effect Assessment

Rose Garden is located to the southeast and within 0.5 mile of the transmission line ROW (Appendix B). At its closest point, the resource is approximately 2,062 feet from the proposed Rebuild Project. The dwelling sits back from the road with open fields to the northeast, east, and southeast. To the northwest, between the dwelling and the existing transmission line is an area of woods, which measures approximately 3,182 feet and currently shields the transmission line from view of the resource. Under current conditions, the existing transmission line, which ranges in height from approximately 52 to 70 feet in the vicinity of the dwelling (Structure #224/144 through #224/150), was not visible from the resource (Figures 12 and 13). Based upon Dominion Energy's preliminary design, the proposed structures in this section of the line will range in height from approximately 96 to 117 feet with an increase in height ranging





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

from approximately 40 to 53 feet. The Rebuild Project will be constructed within the existing transmission line corridor.

The viewshed modeling indicated that the existing structures are currently not visible and proposed structures will not be visible from the resource (Figure 14). Based on the fieldwork, the preliminary heights of the proposed structures, and the viewshed modeling for the resource, ***it is recommended that the proposed project would have No Visual Impact on Rose Garden (VDHR #049-0064).***



**Figure 12 View from Photo Location 7, Rose Garden (VDHR #049-0064) Looking Northwest towards the Rebuild Project. Transmission Line is Not Visible.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



**Figure 13 View from Photo Location 7, Rose Garden (VDHR #049-0064) Looking Southwest  
towards the Rebuild Project. Transmission Line is Not Visible.**



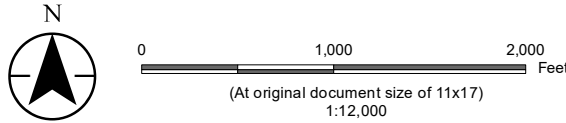




Figure No.  
**14**  
Title  
**Viewshed Analysis and Photo Location Map  
for Rose Garden (VDHR #049-0064)**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia  
Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR  
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis  
5. Orthoimagery © Bing Maps





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

### 3.2.4 Sweet Hall (VDHR #050-0067)

Sweet Hall is a one-and-a-half-story, five-bay, Georgian-style dwelling constructed c. 1720 (Figure 15). The T-shaped residence is constructed of brick laid in a Flemish bond pattern on the front façade and an English bond pattern on the remaining elevations. In the nineteenth century, the exterior was covered in stucco. The house, at the time of its listing on the NRHP in 1977, featured nine-over-nine wood double-hung sash windows dating from the late eighteenth and early nineteenth century. The dwelling also featured a modillioned cornice, Greek Revival dormers projecting from the front roof slope, and interior end brick chimneys as well as an exterior brick chimney off the gable end of the ell. The dwelling was listed on the NRHP in 1977 under Criterion C for its significance in architecture (VDHR Site Files; NPS 1977).



**Figure 15 View of Sweet Hall (VDHR #050-0067), Looking East.**

#### 3.2.4.1 Visual Effect Assessment

The property of Sweet Hall is located within the 0.5-mile buffer and crosses the existing transmission line ROW (Appendix B). The house, at its closest point, is approximately 228 feet to the southeast of the existing lattice tower (Structure #224/228). The house is set back from the road on a relatively level lot and faces the river. A long, gravel, tree-lined driveway, flanked on either side by open fields, provides access to the house. The portion of the transmission line proposed for full rebuilding currently has structures with existing heights of approximately 65 to 70 feet in the vicinity of the resource (Structure #224/224 through #224/226) in the vicinity of the resource (Figures 16 and 17). These structures were visible from the vicinity of the existing ROW but were not visible from Photo Location 11 at the end of the

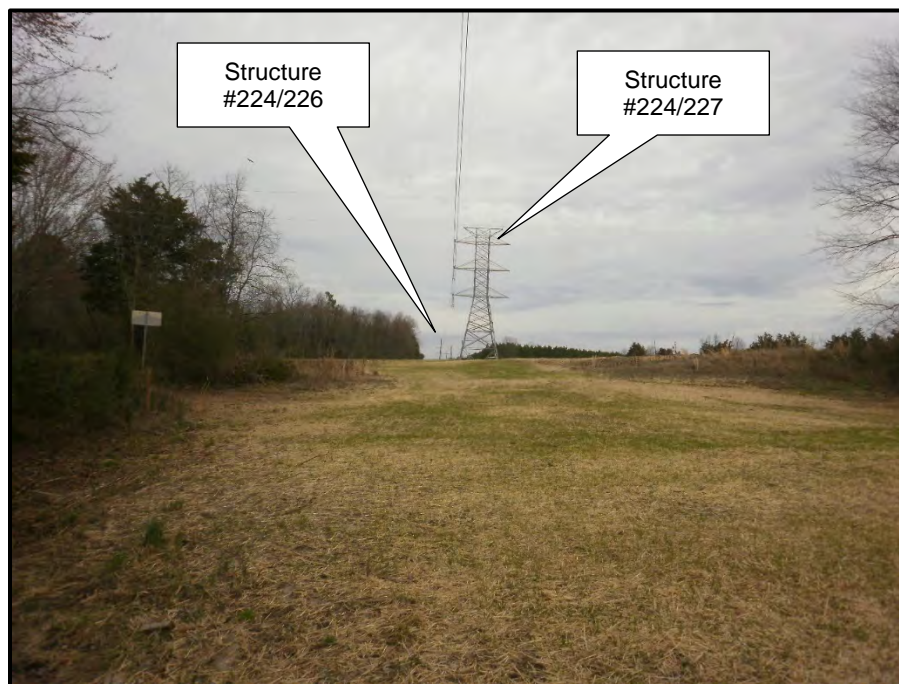




**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

driveway (Figure 18). Based upon Dominion Energy's preliminary design, the proposed structures in this section of the line will range in height from approximately 106 to 117 feet with an increase in height ranging from approximately 41 to 47 feet. The Rebuild Project will be constructed within the existing transmission line corridor. Structures #224/227 through #224/230, which are also in view of the resource, were part of the *Stage 1 Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line, Pamunkey River Crossing, King William and New Kent Counties, Virginia* project. The project went through VDHR review and the structures have been rebuilt; however, a second circuit to these structures will be added as part of the current project.

The viewshed modeling indicated existing structures are visible from the southern side of Sweet Hall Road as well as in open areas adjacent to the transmission line corridor and to the west and northeast of the house. The proposed structures will also be visible from the same areas (Figure 19). However, the overall visual impact of the proposed structures will not greatly change from the existing conditions in the vicinity of this resource. Based on the fieldwork, the preliminary heights of the proposed structures, and the viewshed modeling for the resource, ***it is recommended that the proposed project would have a Minimal Visual Impact on Sweet Hall (VDHR #050-0067).***



**Figure 16 View from Photo Location 8 within the Transmission Line Corridor/Sweet Hall Property (VDHR #050-0067) Looking Northeast towards the Existing Transmission Line. The Existing Transmission Line 224 is Visible.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



**Figure 17 View from Photo Location 10 within the Transmission Line Corridor/Sweet Hall Property (VDHR #050-0067) Looking Northeast towards the Existing Transmission Line. The Existing Line 224 is Visible.**



**Figure 18 View from Photo Location 11, Sweet Hall Property (VDHR #050-0067) Looking Northwest towards the Existing Transmission Line. The Existing Transmission Line 224 is Not Visible.**





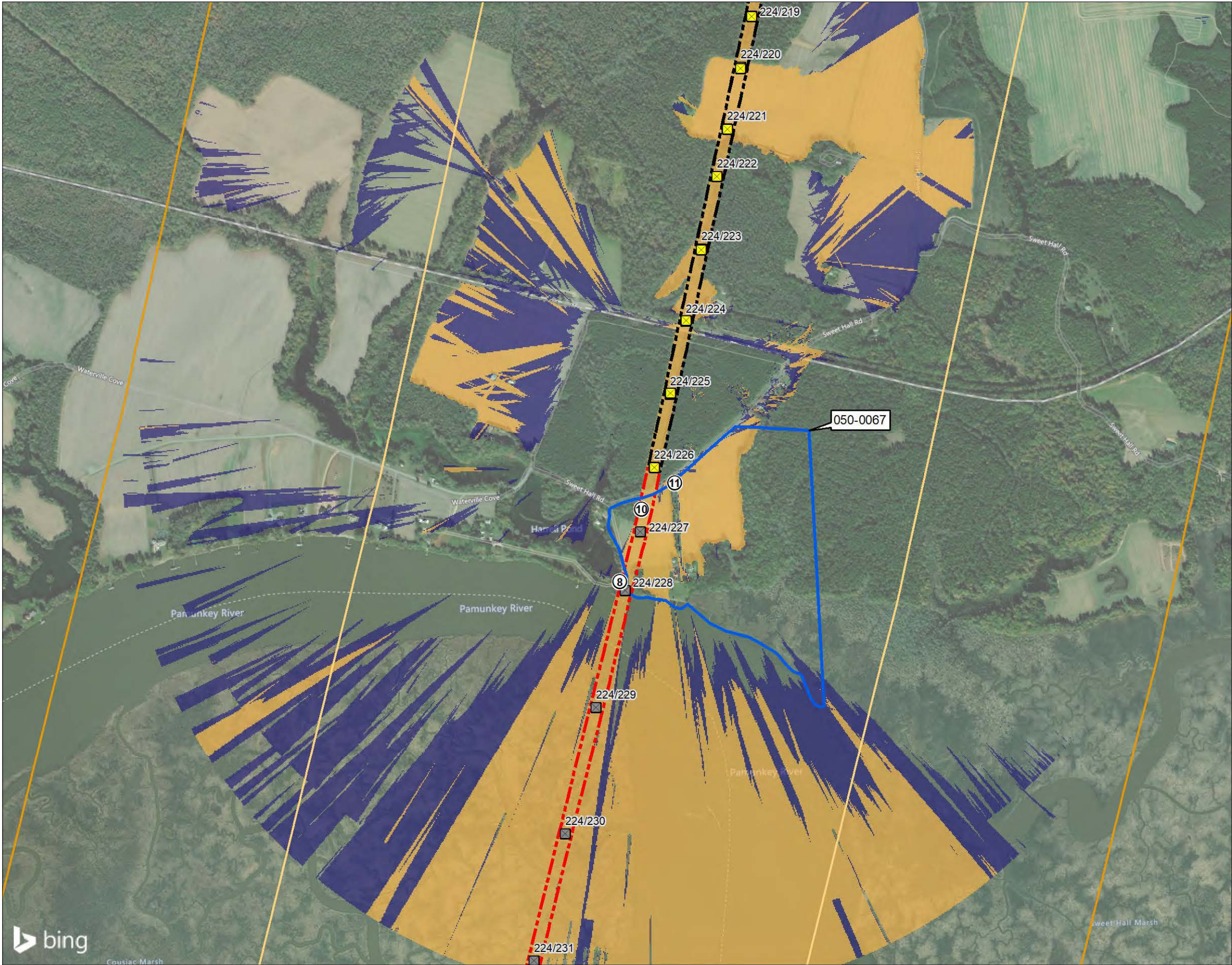
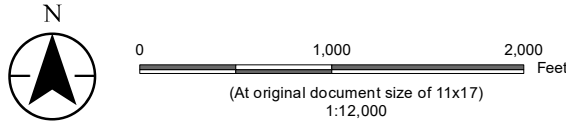


Figure No. 19  
Title  
**Viewshed Analysis and Photo Location Map for Sweet Hall (VDHR #050-0067)**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis
5. Orthoimagery © Bing Maps





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

**3.2.5 Ruffin's Ferry/Windsor Shade (VDHR #050-0070)**

Ruffin's Ferry/Windsor Shade is a one-and-a-half-story, frame, gambrel-roofed dwelling constructed c. 1745 (Figure 20). The exterior is clad in beaded wood weatherboards with a brick foundation laid in an English bond pattern. Five hipped-roof dormers project from the front roof slope and large brick chimneys, laid in a Flemish bond pattern, are located off each end of the building. The current one-story wings were constructed in 1999. The property was listed on the NRHP in 1976 for its architectural merit (Criterion C) and its significance in eighteenth century transportation history. An easement held by VDHR was placed on the property in 2009 (VDHR Site Files; Figure 21).



**Figure 20 View of Ruffin's Ferry/Windsor Shade (VDHR #050-0070), Looking South.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



**Figure 21 Aerial Map Depicting VDHR Easement on Ruffin's Ferry/Windsor Shade (VDHR #050-0070).**

### 3.2.5.1 Visual Effect Assessment

A majority of the Ruffin's Ferry/Windsor Shade property is located directly to the northwest of the transmission line. The far eastern corner of the property as mapped in V-CRIS; however, falls within the transmission line ROW (Appendix B). The house is accessed by a long driveway and is set within an area of trees. An open lawn area to the south of the house provides a water view of the Pamunkey River. Under current conditions, the existing transmission line, which ranges in height from approximately 65 to 70 feet in the vicinity of the dwelling, was not visible from the resource (Figures 22–24). Based upon Dominion Energy Engineering's preliminary design, the proposed structures in this section of the line will range in height from approximately 106 to 117 feet with an increase in height ranging from approximately 41 to 47 feet. The Project Rebuild will be constructed within the existing transmission line corridor. Structures #224/226 through #224/230, which are in view of the resource, were part of the *Stage 1 Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line, Pamunkey River Crossing, King William and New Kent Counties, Virginia* project. The project went through VDHR review and the structures have been rebuilt; however, as part of the current project a second circuit will be installed on these structures.

The viewshed modeling indicated existing structures were not visible from the resource; however, the proposed structures will likely be visible from the northern property boundary adjacent to a pond and potentially from the primary resource (Figure 25). However, the overall visual impact of the proposed structures will not greatly change from the existing conditions in the vicinity of this resource. Based on the fieldwork, the preliminary heights of the proposed structures, and the viewshed modeling for the resource,





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

***it is recommended that the proposed project would have a Minimal Visual Impact to the Ruffin's  
Ferry/Windsor Shade property (VDHR #050-0070).***



**Figure 22 View from Photo Location 9 within the Transmission Line Corridor Looking Northwest towards Ruffin's Ferry/Windsor Shade (VDHR #050-0070). The House is Not Visible from the Transmission Line Corridor.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



**Figure 23 View from Photo Location 12, Ruffin's Ferry/Windsor Shade (VDHR #050-0070) Looking East towards the Existing Transmission Line. Existing Transmission Line 224 is Not Visible.**



**Figure 24 View from Photo Location 12, Ruffin's Ferry/Windsor Shade (VDHR #050-0070) Looking Northeast towards the Existing Transmission Line. Existing Transmission Line 224 is Not Visible.**





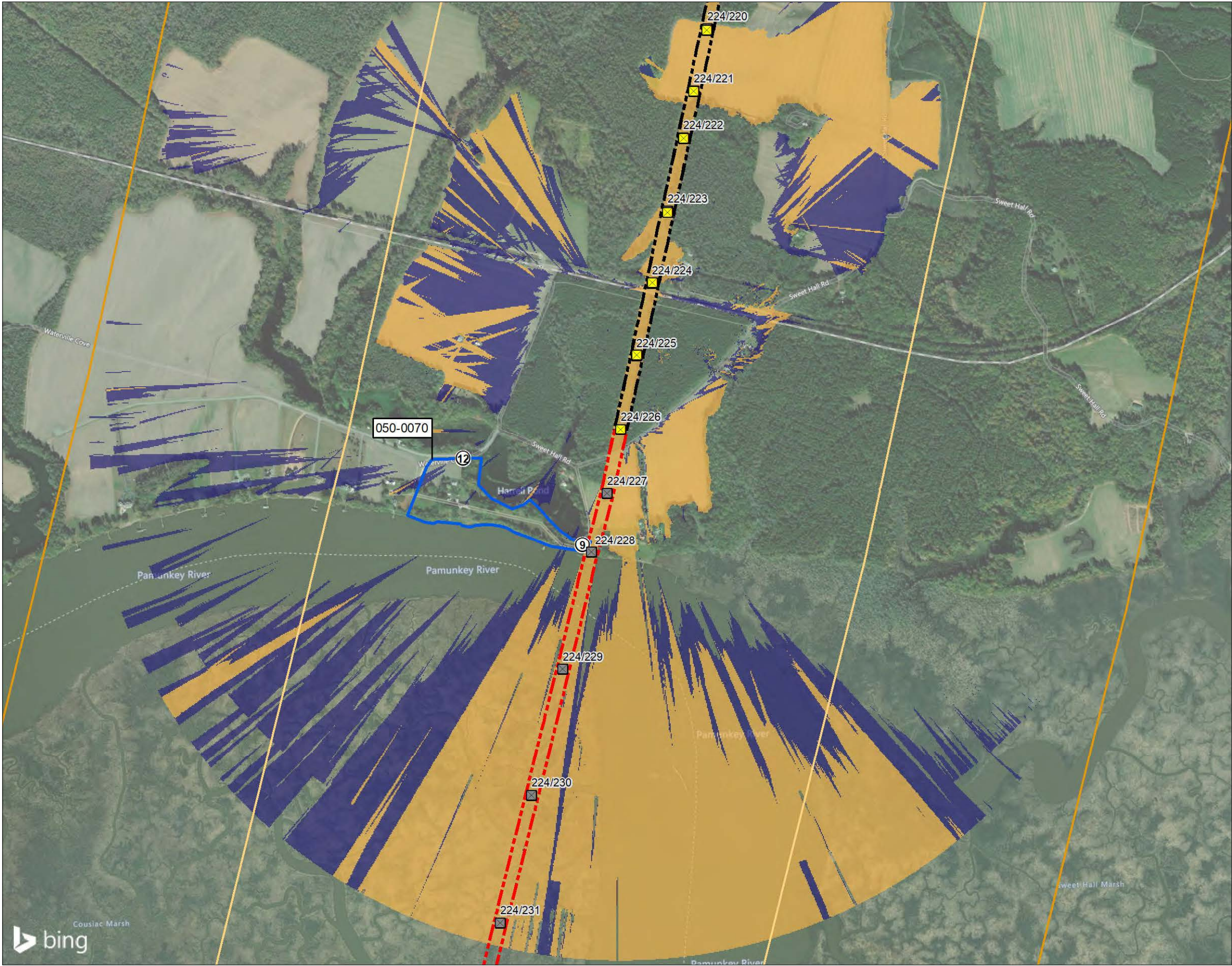
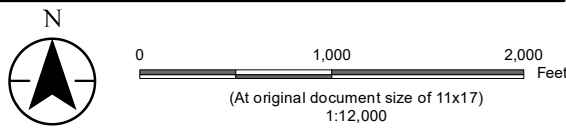


Figure No.  
**25**  
Title  
**Viewshed Analysis and Photo Location Map  
for Ruffin's Ferry/Windsor Shade (VDHR  
#050-0070)**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis
5. Orthoimagery © Bing Maps





STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

### 3.3 HISTORIC DISTRICTS CONSIDERED

One NRHP-listed historic district, the King and Queen County Courthouse Green Historic District (VDHR #049-5001), was located within 1.0 mile of the centerline and was therefore considered for visual effects per VDHR guidelines for the proposed rebuild project.

#### 3.3.1 King and Queen County Courthouse Green Historic District (VDHR #049-5001)

The King and Queen County Courthouse Green Historic District comprises approximately 11.5 acres and contains 15 contributing buildings, structures, and objects. The district includes the core buildings making up the fenced courthouse area: the courthouse itself, the jail, and the clerk's office, as well as a tavern, school, store, and an additional tavern that now functions as a private residence, outside the wall. The district was listed on the NRHP in 1998 under Criteria A and C with a period of significance from c. 1750 to 1940. The NRHP boundary was increased to include the Immanuel Chapel (VDHR #049-0035) in 2014 (VDHR Site Files; Spain Jr. 1998; Spain Jr. and Hall 2013).

##### 3.3.1.1 Visual Effect Assessment

To assess the potential visual effects on the historic district, photographs were taken from the public ROW from accessible points of the resource within 0.5 mile and 1.0 mile of the ROW. At its closest point, the historic district is approximately 2,440 feet to the north/northwest of the Rebuild Project. The district is generally characterized by wooded areas as well as open greens, lawns, and fields. Under current conditions, as observed during the fieldwork, structures to the northeast and southwest in the vicinity of the resource (Structure #224/171 through #224/174 and #224/178 through #224/179) were not visible under current conditions (see Figure 22, Photo Location 2, which depicts the view from the resource towards Structure #224/172 through #224/174). The existing transmission line (Structures #224/175 through #224/177 and associated wires), which range in height from approximately 61 to 72 feet, however, was visible (Figures 23 and 24). Based upon Dominion Energy's preliminary design, the proposed structures (Structures #224/171 through #224/179) will range in height from approximately 96 to 122 feet with an increase in height ranging from approximately 39 to 50 feet. The Rebuild Project will be constructed within the existing transmission line corridor.

The viewshed modeling indicated the existing structures are visible from the resource from the eastern side of the district to the north of Allens Circle and south of The Trail where an open field area is located. The proposed structures will also be visible from the same areas (Figure 29). Structures #224/175 and #224/176 will have the greatest visual impact on the resource as these structures traverse an open, flat landscape within the resource. These proposed structures will have an increase in height of approximately 39 and 41 feet, respectively, and extend above the existing tree line, which currently aids in shielding the line from view (Appendix C – KOP 2). Based on the fieldwork, the photosimulations for the proposed structures, and the viewshed modeling for the resource, ***it is recommended that the***





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

***proposed project would have a Moderate Visual Impact on the King and Queen Courthouse Green  
Historic District (VDHR #049-5001).***



**Figure 26 View from Photo Location 2, King and Queen County Courthouse Green Historic District (VDHR #049-5001) and Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) Northeast towards the Existing Transmission Line. Transmission Line 224 is Not Visible.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



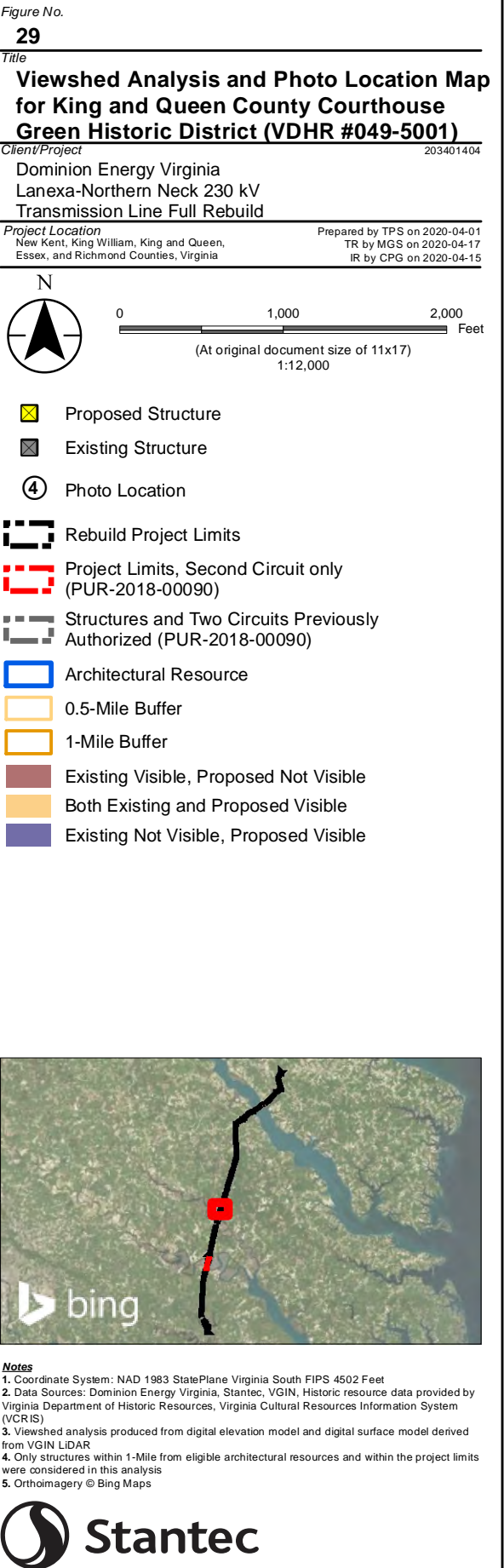
**Figure 27 View from Photo Location 3, King and Queen County Courthouse Green Historic District (VDHR #049-5001) and Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) Looking Southeast towards the Existing Transmission Line. Transmission Line 224 is Visible.**



**Figure 28 View from Photo Location 4, King and Queen County Courthouse Green Historic District (VDHR #049-5001) and Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) Looking Southeast towards the Existing Transmission Line. Transmission Line 224 is Visible.**









STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

### 3.4 BATTLEFIELD RESOURCES CONSIDERED

A portion of the Mantapike Hill/Walkerton Battlefield (VDHR #049-5007) was located within 1.0 mile of the centerline and was therefore considered for visual effects per VDHR guidelines for the proposed rebuild project.

#### 3.4.1 Mantapike Hill/Walkerton Battlefield (VDHR #049-5007/ABPP VA125)

The battle of Mantapike Hill/Walkerton took place on March 2, 1864 between Confederate forces led by Major General Wade Hampton and Union forces under the command of Brigadier General Judson Kilpatrick and Colonel Ulric Dahlgren. Four thousand Union forces under Kilpatrick and 500 under Dahlgren were en route to Richmond to penetrate defenses in the capital. Kilpatrick's troops traveled along the Virginia Central Railroad tearing up the tracks in order to disrupt supply lines while Dahlgren's men were traveling along the James River in order to free Union prisoners on Belle Isle. Due to the delay in Dahlgren's arrival, Kilpatrick was forced to retreat. Near Old Church Union soldiers were attacked by Hampton's cavalry. Separated from Kilpatrick's troops, Dahlgren and his soldiers tried to escape to the north of Richmond only to be taken prisoner and Dahlgren killed (American Battlefield Protection Program [ABPP] 2020; Appendix B).

##### 3.4.1.1 Visual Effects Assessment

The portion of the NRHP-eligible resource includes sections of the study and ABPP-defined Potential National Register (PotNR) areas of the battlefield. The main core area is located approximately 3 miles from the current project area. The existing transmission line is located to the southeast, east, and northeast of the battlefield (Appendix B). The closest point, which is the southeastern point of the resource, is approximately 256 feet from the existing transmission line. Under current conditions, as observed during the fieldwork, the existing transmission line (Structures #224/175 through #224/177 and associated wires), which range in height from approximately 60 to 72 feet, were visible from the resource from Photo Locations 3 and 4 (Figures 27 and 28). The existing line was not visible from Photo Locations 1, 2, and 6 (Figures 4 and 5 and 30 and 31). Based upon Dominion Energy's preliminary design, the structures in the vicinity of the resource (Structures #224/171 through #224/179) will range in height from approximately 96 to 122 feet with an increase in height ranging from approximately 39 to 50 feet. The Project Rebuild will be constructed within the existing transmission line corridor.

The viewshed modeling indicated the existing structures are visible from the resource from the eastern end of the battlefield to the north of Allens Circle and south of The Trail, where an open field is located, and in the open area to the southeast of Allens Circle. The proposed structures will also be visible from the same areas (Figure 32). Structures #224/175 and #224/176 will have the greatest visual impact on the resource as these structures traverse an open, flat landscape and will increase in height of approximately 39 and 41 feet, respectively (Appendix C – KOP 2). However, the location of these structures is at the far southeast end of the resource within the ABPP Study Area and area of troop movement. The Core Area is outside of the project area and will not be visually impacted. Based on the fieldwork, the photosimulations for the proposed structures, and the viewshed modeling for the resource,





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

***it is therefore recommended that the proposed project would have a Minimal Visual Impact on the  
Mantapike Hill/Walkerton Battlefield (VDHR #049-5007).***



**Figure 30 View from Photo Location 6, Mantapike Hill/Walkerton Battlefield (VDHR #049-5007)  
Looking East toward the Existing Transmission Line. Transmission Line 224 is Not Visible.**





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**



**Figure 31 View from Photo Location 6, Mantapike Hill/Walkerton Battlefield (VDHR #049-5007)  
Looking Southeast toward the Existing Transmission Line. Transmission Line 224 is Not Visible.**





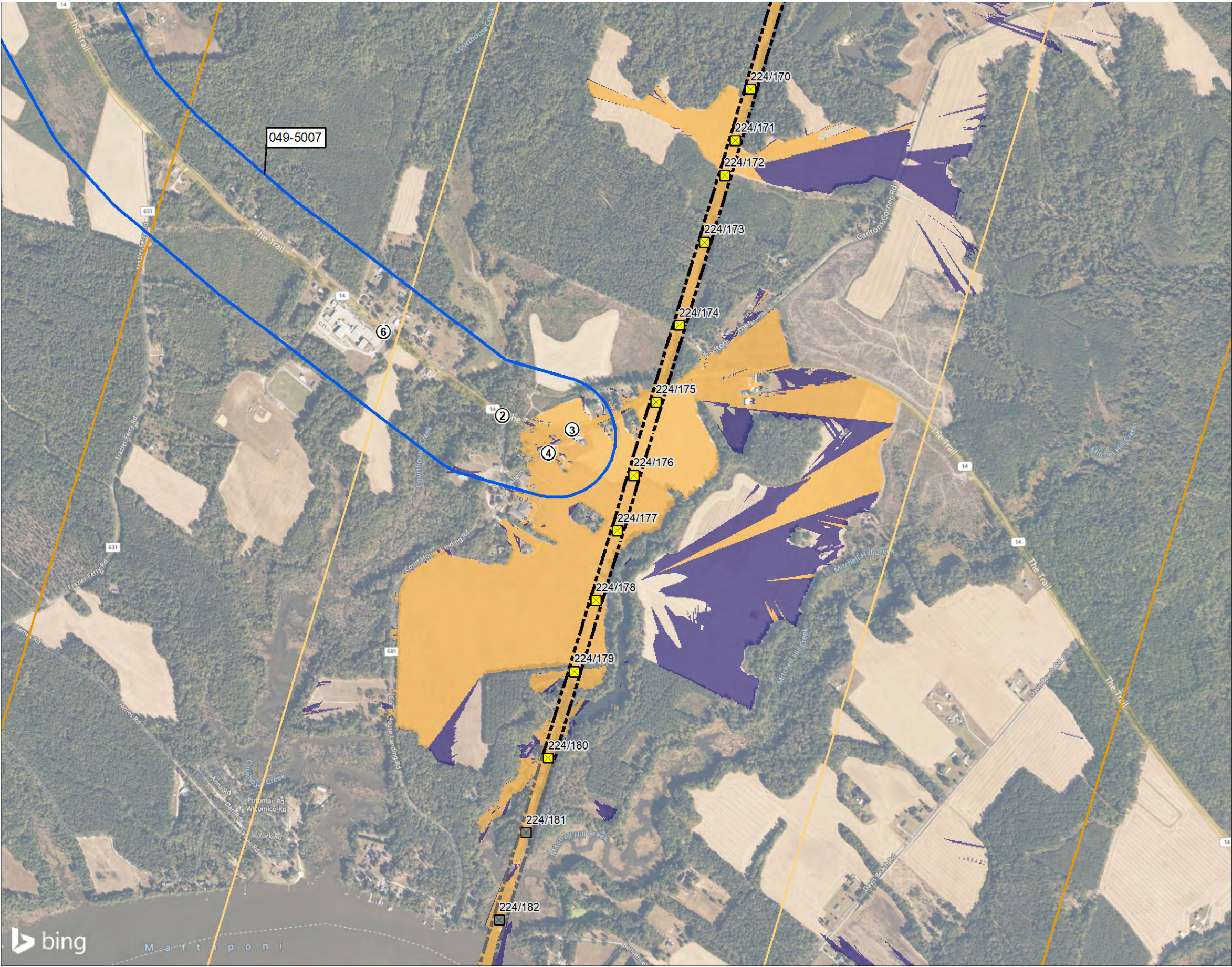
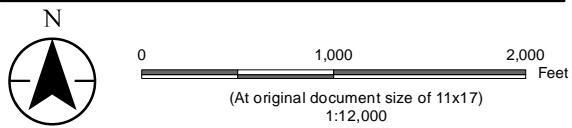


Figure No. **32**  
Title  
**Viewshed Analysis and Photo Location Map for Mantapike Hill/Walkerton Battlefield (VDHR #049-5007)**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild  
203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR  
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis  
5. Orthoimagery © Bing Maps





STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

### 3.4.2 Captain John Smith Chesapeake National Historic Trail

The Captain John Smith Chesapeake National Historic Trail encompasses over 3,000 miles of waterway associated with the voyages of John Smith as well as early explorations of the Chesapeake Bay region. The CAJO was designated by Congress in 2006 through an amendment to Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)) and is the first nationally designated water trail under the Act. The trail route extends throughout the Chesapeake Bay and includes tributaries explored by Smith. The Trail was further extended into four additional rivers considered as historic components of the Trail by the Secretary of the Interior in May 2012. Per the NPS documentation: "The purpose of the Captain John Smith Chesapeake National Historic Trail is to commemorate the exploratory voyages of Captain Smith on the Chesapeake Bay and its tributaries in 1607-1609; to share knowledge about the American Indian societies and cultures of the seventeenth century; and to interpret the natural history of the Bay (both historic and contemporary). Complementing the Chesapeake Bay Gateways and Water trails Network, the Trail will provide new opportunities for education, recreation, eco-tourism, and heritage tourism in the Chesapeake Bay region." The CAJO encompasses over 3,000 miles of waterway in six states which are Virginia, Maryland, Delaware, Washington, DC, Pennsylvania, and New York.

The portion of the trail associated with this section of the Pamunkey River has a possible Kupkipcock Native American Site, as identified by Captain John Smith's Map of Virginia from 1607, on the property of Ruffin's Ferry/Windsor Shade (VDHR #050-0070). The archaeological resource is not within the existing transmission line ROW. Additional resources dating from the seventeenth century do not appear to be present within the vicinity of the Pamunkey, Mattaponi, or Rappahannock River crossings. Modern residential development is present, but sparse in the vicinity of the project area. VDHR has determined that the Pamunkey section of the trail is not eligible for listing on the NRHP. The remaining sections of the trail have not been evaluated by VDHR for NRHP eligibility.

The structures at the marsh and adjacent to the Pamunkey and Mattaponi River crossing have been authorized under the previous SCC order and have been rebuilt. The structures to be rebuilt on shore at the Mattaponi and Pamunkey River crossings under the current Rebuild Project would have limited visibility from the trail and the second circuit added to the Pamunkey Crossing would have a minimal change to the current viewshed. The viewshed of the CAJO at the Pamunkey and Mattaponi River crossings are provided in Figures 33 and 34. Only the visibility of structures to be rebuilt under the current Rebuild Project were modeled. The proposed Rappahannock River crossing structures, under the Rebuild Project, will be lattice structures of similar design to the present structures crossing the river and will be the same height. As such, the proposed structures crossing the Rappahannock River will not result in a significant change to the existing conditions and a viewshed was not modeled. Structures in the vicinity of the CAJO on the Rappahannock River are shown on Figure 35. ***Because the proposed rebuild is consistent with the transmission line currently in place at the locations of the crossings, it is recommended that the rebuild would have a Minimal Visual Effect to the Captain John Smith Chesapeake National Historic Trail.***





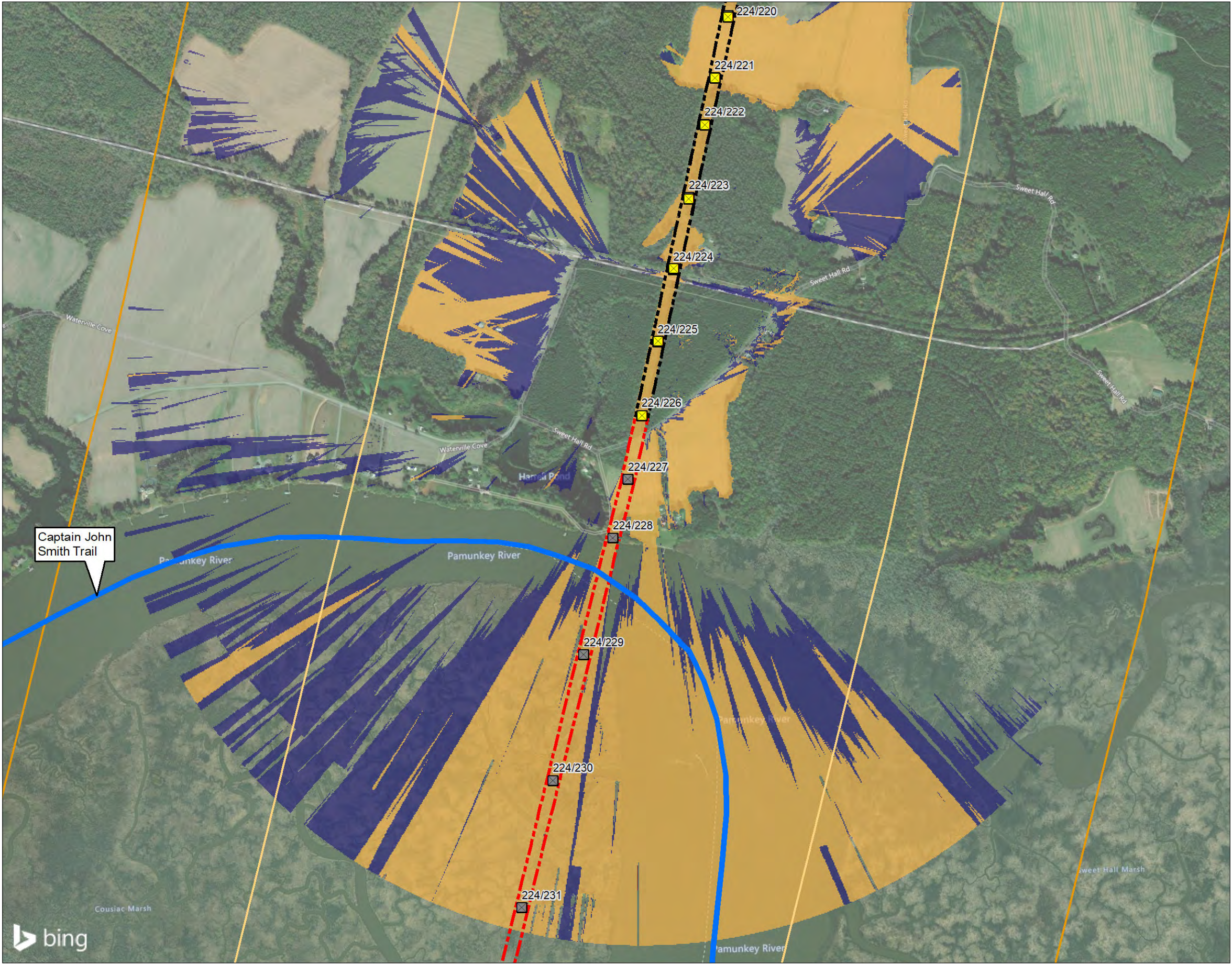


Figure No.  
**33**

Title  
**Viewshed Analysis of the Captain John Smith Trail - Pamunkey Crossing**

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Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

203401404

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Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

N

0 1,000 2,000 Feet

(At original document size of 11x17)  
1:12,000

- Existing Structure
- Proposed Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Captain John Smith Trail
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis
5. Orthoimagery © Bing Maps



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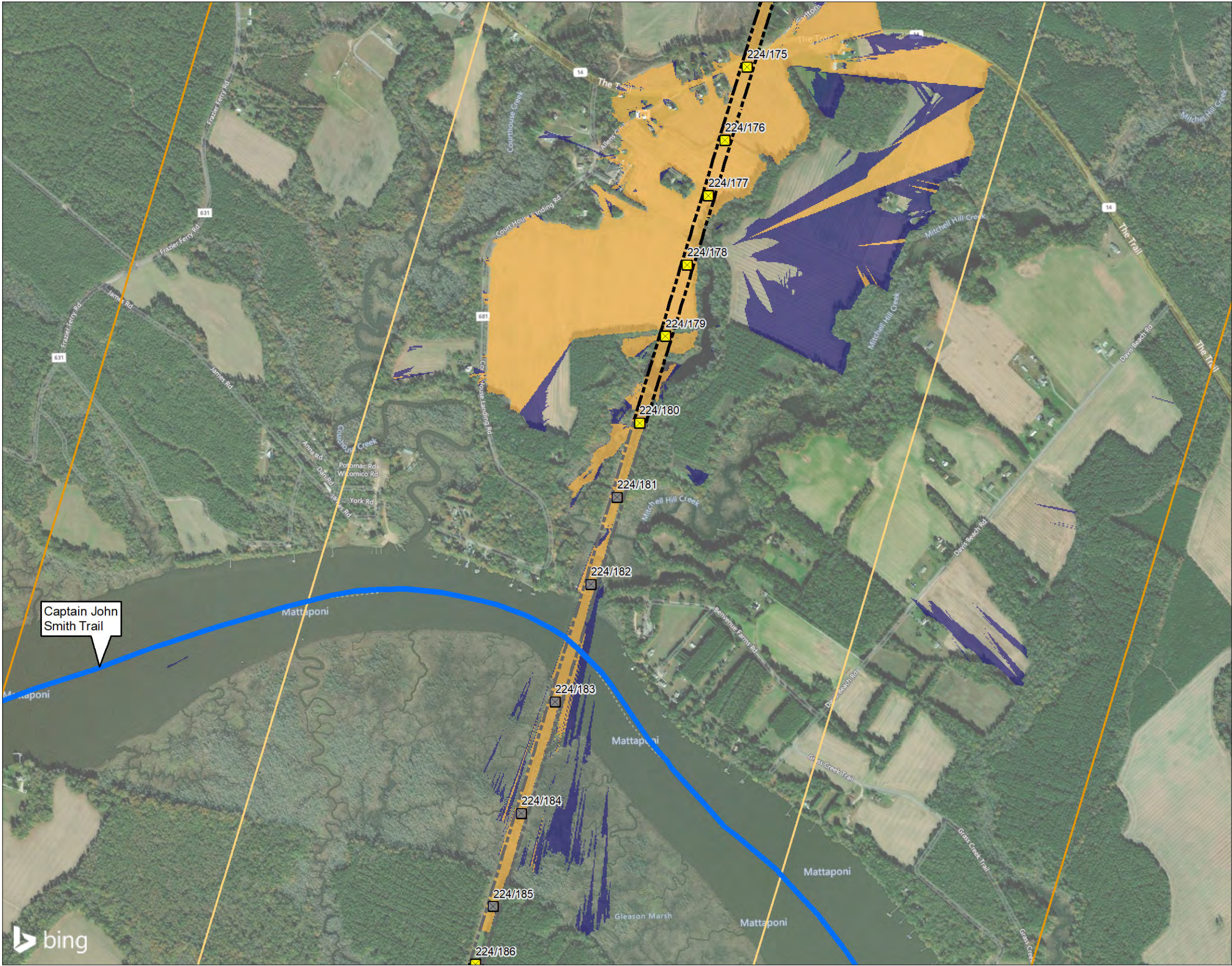


Figure No.  
**34**

Title  
**Viewshed Analysis of the Captain John Smith Trail - Mattaponi Crossing**

---

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

203401404

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

N

0 1,000 2,000 Feet

(At original document size of 11x17)  
1:12,000

- Existing Structure
- Proposed Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Captain John Smith Trail
- 0.5-Mile Buffer
- 1-Mile Buffer
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis
5. Orthoimagery © Bing Maps







Figure No. **35**

Title  
**Captain John Smith Trail - Rappahannock Crossing**

---

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

203401404

---

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

N

0 2,000 4,000 Feet

(At original document size of 11x17)  
1:24,000

- Existing Structure
- Proposed Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Captain John Smith Trail
- 0.5-Mile Buffer
- 1-Mile Buffer



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Bing Maps



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STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA

## 4.0 CONCLUSIONS

### 4.1 OVERVIEW

Stantec was retained by Dominion Energy to conduct a Stage I Pre-Application Analysis for the proposed rebuilding of Line #224 and the addition of a second 230 kV circuit from the existing Lanexa Substation to the existing Northern Neck Substation (Rebuild Project) in New Kent, King William, King and Queen, Essex, and Richmond counties, Virginia. In order to maintain the structural integrity and reliability of its transmission system and perform needed maintenance on its existing facilities, Dominion Energy proposes to rebuild, pending final approval by the SCC, entirely within existing ROW, approximately 38.3 miles of existing transmission line. Dominion proposes to remove existing wood H-frame and lattice transmission structures, associated foundations, and overhead conductor wire and replace with weathering steel monopole and galvanized steel lattice structures with double-circuit 230 kV conductor wire as part of the Rebuild Project.

A second 230 kV circuit totaling 1.7 miles will be added to the existing double circuit structures at the Pamunkey River crossing. The structures crossing the Mattaponi and Pamunkey rivers, previously addressed in the report entitled *Stage 1 Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line. Pamunkey River Crossing, King William and New Kent Counties, Virginia* will have 1.7 miles of a second 230 kV circuit added as part of the Rebuild Project. The structures, which were part of the previous Stage 1 report, have already received SCC approval without the addition of the second circuit. Due to the nature of the installation, it is recommended that the addition of the circuit will not significantly change the viewshed from the resources under consideration. A second 230 kV circuit is already present on double circuit structures for 1.3 miles at the Mattaponi River Crossing, which was addressed in the report entitled *Stage I Pre-Application Analysis for the Proposed Dominion Energy Virginia Rebuild of Line 224 230 kV Transmission Line, Mattaponi Crossing, King and Queen and King William Counties, Virginia*. The SCC approved the construction of these structures and both 230 kV circuits, will have a second circuit installed as part of the current project. The structures, which were part of the previous Stage 1 report, have already received SCC approval without the addition of the second circuit. Due to the nature of the installation, it is recommended that the addition of the circuit will not significantly change the viewshed from the resources under consideration. Additionally, Dominion Energy proposes to make the temporary King and Queen Substation built to support the construction of the Mattaponi River crossing permanent under this Rebuild Project.

#### 4.1.1 Recommendations - Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile buffer. Three NRHP-listed resources, the King and Queen County Courthouse Green Historic District (VDHR #049-5001), Sweet Hall (VDHR #050-0067), and Ruffin's Ferry (VDHR #050-0070) were identified within 1.0 mile and three NRHP-eligible resources, Immanuel Chapel (VDHR #049-0035), the King and Queen County Courthouse (VDHR #049-0036), and Rose Garden (VDHR #049-0064) were identified within 0.5 mile. A single battlefield was also identified, the NRHP-eligible Mantapike Hill/Walkerton Battlefield (VDHR #049-5007),





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

which also falls within 1.0 mile. Additionally, the boundaries of Sweet Hall (VDHR #050-0067) and Ruffin's Ferry (VDHR #050-0070) are within or immediately adjacent to the ROW. Additionally, the nationally designated Captain John Smith Chesapeake National Historic Trail crosses the ROW at the Mattaponi, Pamunkey, and Rappahannock rivers. VDHR has determined that the Pamunkey section of the trail is not eligible for listing on the NRHP. The remaining sections of the trail have not been evaluated by VDHR for NRHP eligibility. Table 5 details the recommendations for the project.

***Based on preliminary structure heights, the proposed Rebuild Project would increase the height of the structures approximately 21 to 56 (maximum) feet for the proposed monopole structures. Based on the analysis, it is recommended that the rebuild would have No Visual Impact to the Immanuel Chapel (VDHR #049-0035) and Rose Garden (VDHR #049-0064). The proposed Rebuild Project would have a Minimal Impact to the King and Queen County Court House (VDHR #049-0036), the Mantapike Hill/Walkerton Battlefield (VDHR #049-5007), Sweet Hall (VDHR #050-0067), Ruffin's Ferry (VDHR #050-0070), and the Captain John Smith Chesapeake National Historic Trail and have a Moderate Visual Impact to the Courthouse Green Historic District (VDHR #049-5001).***

**Table 5 Previously Recorded Architectural Resources Considered for the Stage I Pre-Application Process**

VDHR #	Resource Name	VDHR/NRHP Status	Distance to Centerline (Feet)	Impact
049-0035	Immanuel Chapel, 190 Allens Circle	Determined Eligible by VDHR in 2006 and 2019	1,336	None
049-0036	King and Queen County Court House, Court House Landing Road	Determined Eligible by VDHR in 1994	1,208	Minimal
049-0064	Rose Garden, Carlton's Corner Road	Determined Eligible by VDHR in 2000	2,062	None
049-5001	King and Queen County Courthouse Green Historic District	NRHP-Listed 2014	662	Moderate
049-5007	Mantapike Hill/Walkerton Battlefield	Determined Eligible by VDHR in 2016	256	Minimal
050-0067	Sweet Hall, Route 634	NRHP-Listed 1977	229	Minimal
050-0070	Ruffin's Ferry/Windsor Shade, 1685 Sweet Hall Road	NRHP-Listed 1978	1,130	Minimal
N/A	Captain John Smith Chesapeake National Historic Trail	Not Evaluated within the APE	0	Minimal

#### 4.1.2 Recommendations – Archaeological Resources

One previously recorded archaeological resource was identified during the background research. An archaeological survey of the ROW during the Stage II analysis is recommended.





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

**Previously Recorded Archaeological Resources Located adjacent to the Project Limits**

<b>VDHR ID</b>	<b>Resource Type</b>	<b>VDHR/NRHP Status</b>	<b>Distance to Line (FT)</b>	<b>Recommendation</b>
44RD0025	Woodland	Not Evaluated	0	Avoid During Construction or Investigate During Archaeological Survey





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

REFERENCES

## 5.0 REFERENCES

American Battlefield Protection Program

2020 "Walkerton." <https://www.nps.gov/abpp/battles/va125.htm>, accessed 4 January 2018.

Advisory Council for Historic Preservation (ACHP)

2000 *36 CFR 800: Part 800- Protection of Historic and Cultural Properties*. Federal Register, September 2, Washington, D.C.

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1981 *Department of the Interior's Regulations, 36 CFR Part 60: National Register of Historic Places*. Interagency Resources Division, National Park Service, U.S. Department of the Interior, Washington, D.C.

1983 *Department of the Interior, Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Interagency Resources Division, National Park Service, U.S. Department of the Interior, Washington, D.C.

1991 How to Apply the National Register Criteria of Evaluation. *National Register Bulletin 15*. Interagency Resources Division, National Park Service, U.S. Department of the Interior, Washington, D.C.

Virginia Department of Historic Resources (VDHR)

2008 *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia*. VDHR, Richmond.

2020 VDHR Archive Files.





**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

# **APPENDIX**



**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

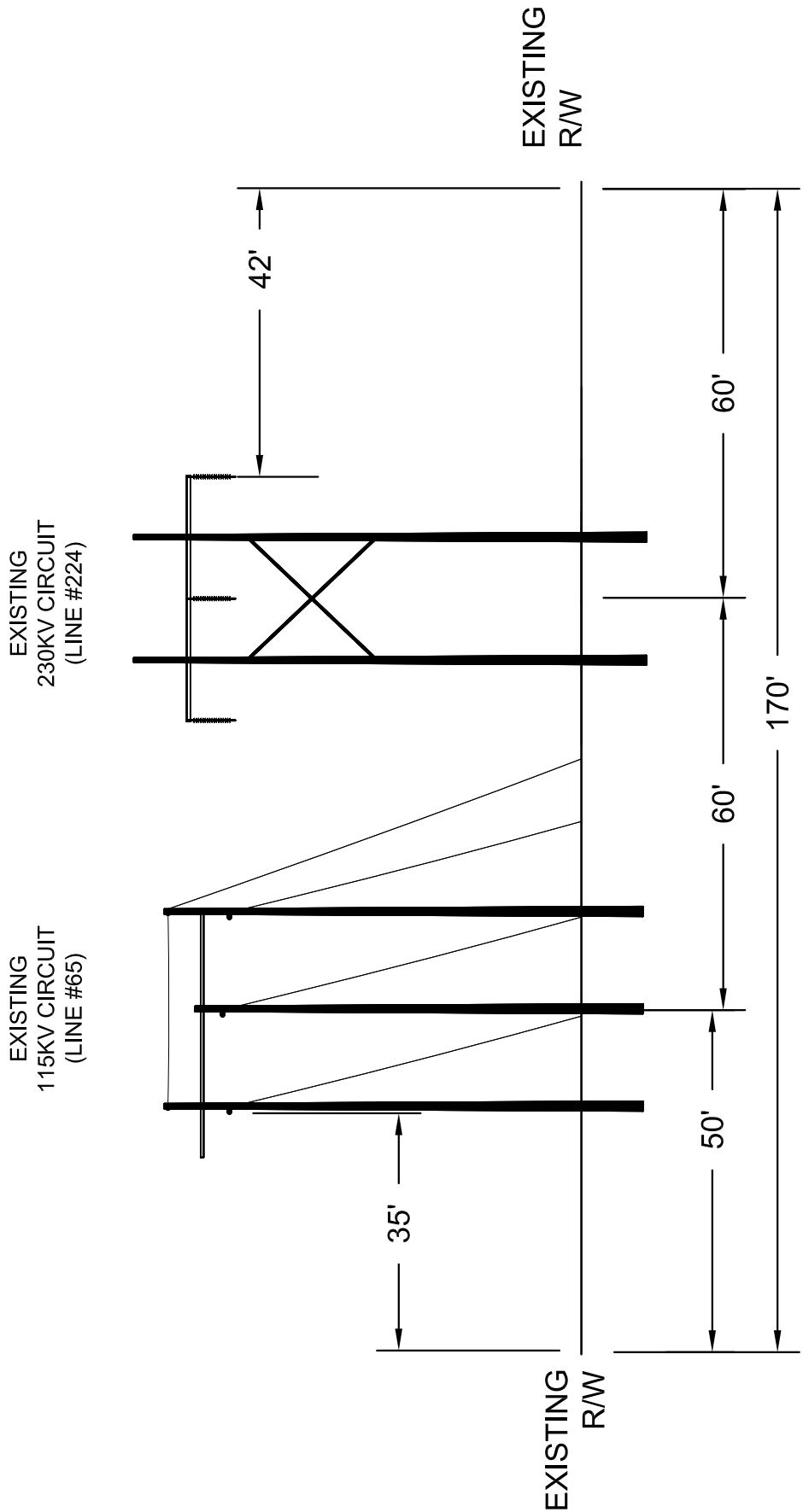
Appendix A SCHEMATICS

## Appendix A SCHEMATICS





NORTHERN NECK - STRUCTURE 224/3  
EXISTING CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

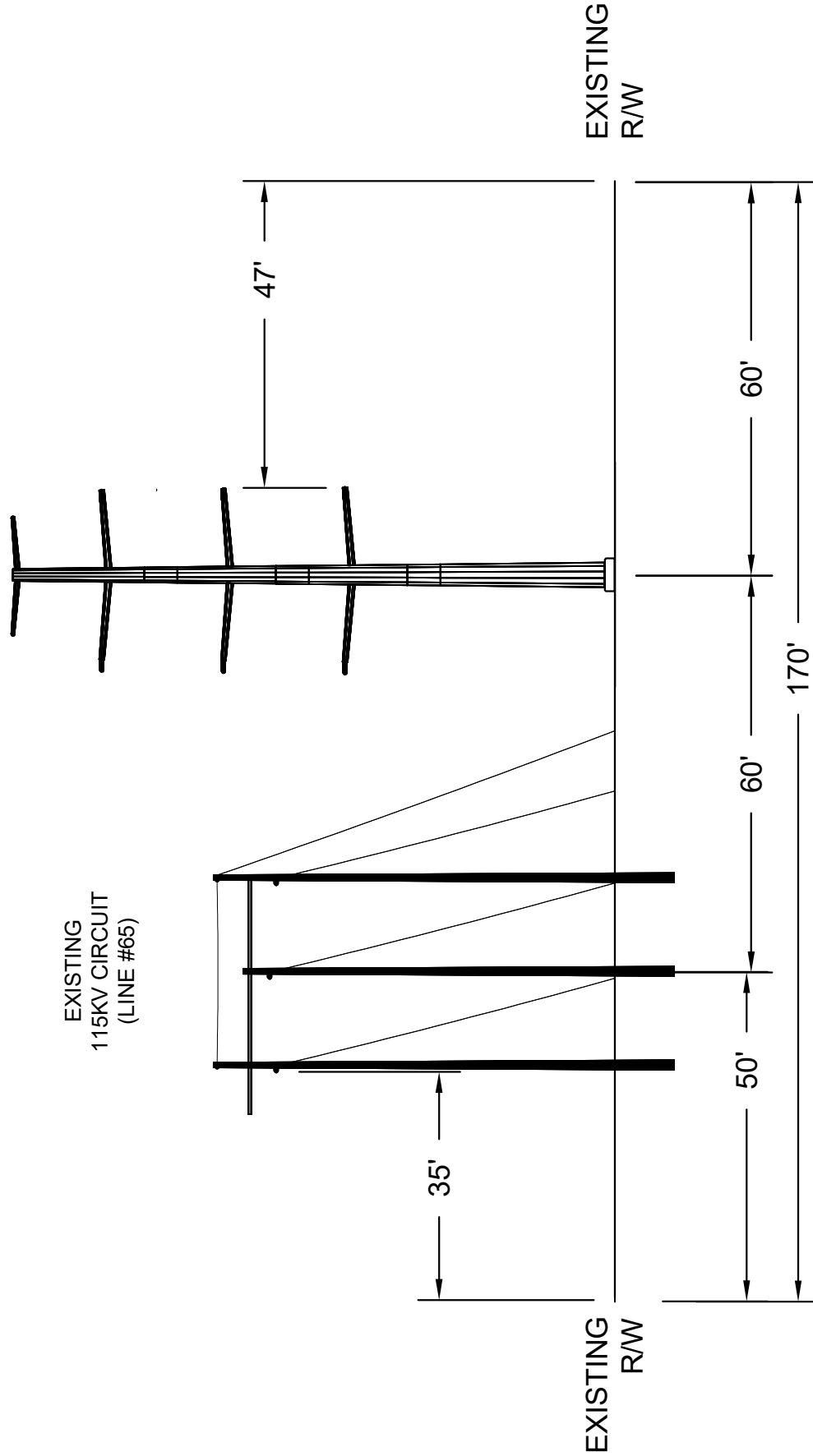
NOTES:

1. Existing structure shown with approximate average height of 65' (line 224) and does not include foundation reveal.
2. Approximate average height is measured from the groundline at structure centerline.



## NORTHERN NECK - STRUCTURE 224/3 PROPOSED CONFIGURATION

PROPOSED 230KV CIRCUIT (LINE #224)  
PROPOSED 230KV CIRCUIT (LINE #2208)



TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

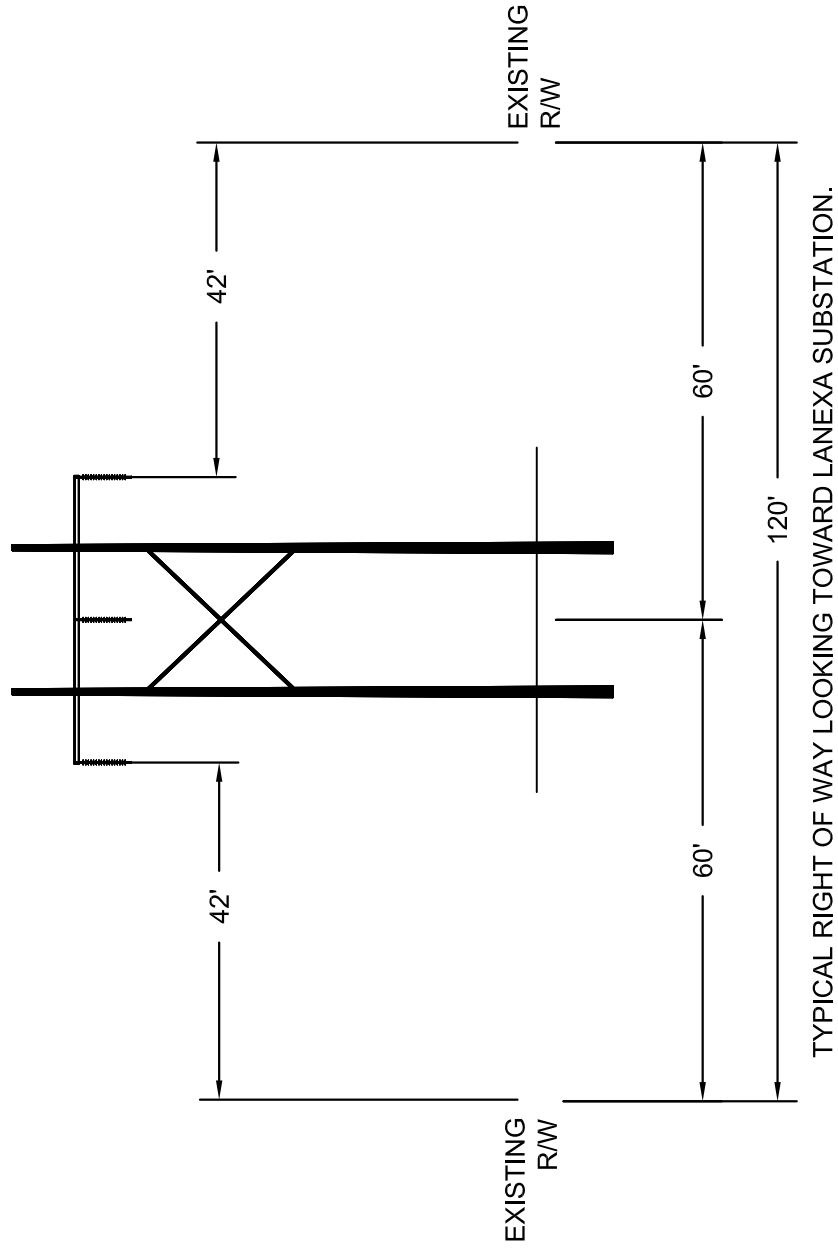
### NOTES:

1. Proposed structure shown with approximate average height of 90' (line 224) and does not include foundation reveal.
2. Approximate average height is measured from the groundline at structure centerline.
3. Information contained on drawing is to be considered preliminary in nature and subject to changed based on final design.



STRUCTURES 224/4- 224/51; 224/60-224/180;  
224/186-227/227; 24/234-224/296

EXISTING 230KV  
CIRCUIT  
(LINE #224)



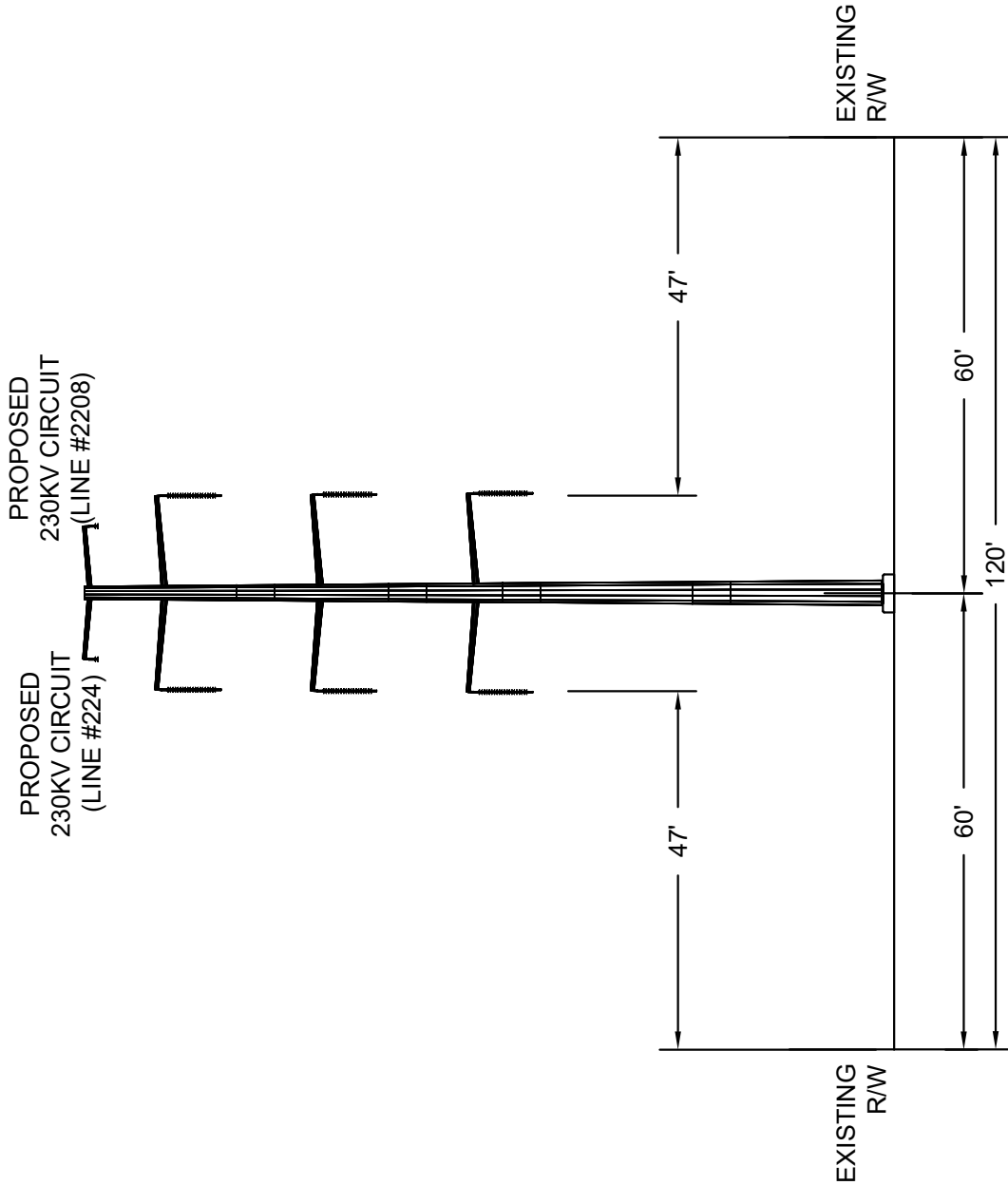
NOTES:

1. Existing structure shown with approximate average height of 65'.
2. Approximate average height is measured from the groundline at structure centerline.



STRUCTURES 224/4-224/51; 224/60-224/180;  
224/186-224/227 & 224/234-224/296

PROPOSED CONFIGURATION



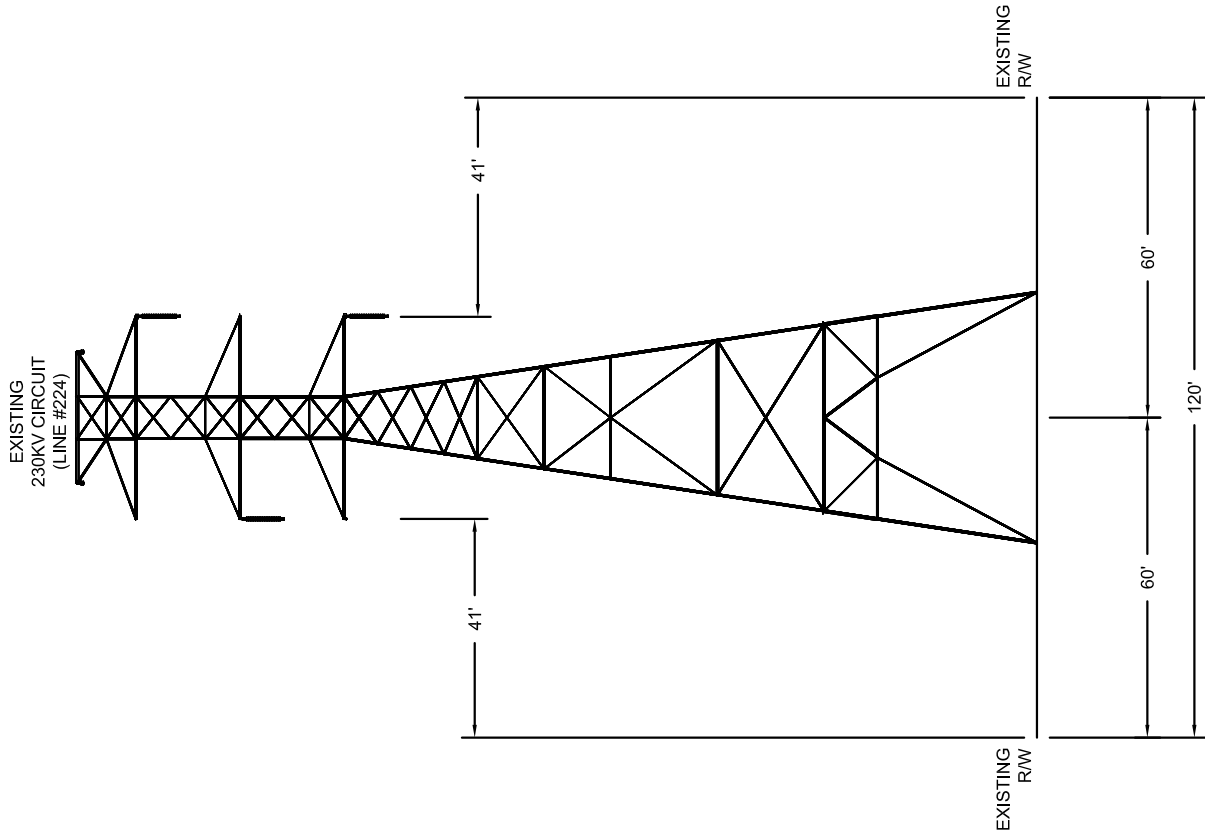
TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

NOTES:

1. Proposed structure shown with approximate average height of 105' and does not include foundation reveal.
2. Approximate average height is measured from the groundline at structure centerline.
3. Information contained on drawing is to be considered preliminary in nature and subject to changed based on final design.



# STRUCTURES 224/52-224/59 EXISTING CONFIGURATION



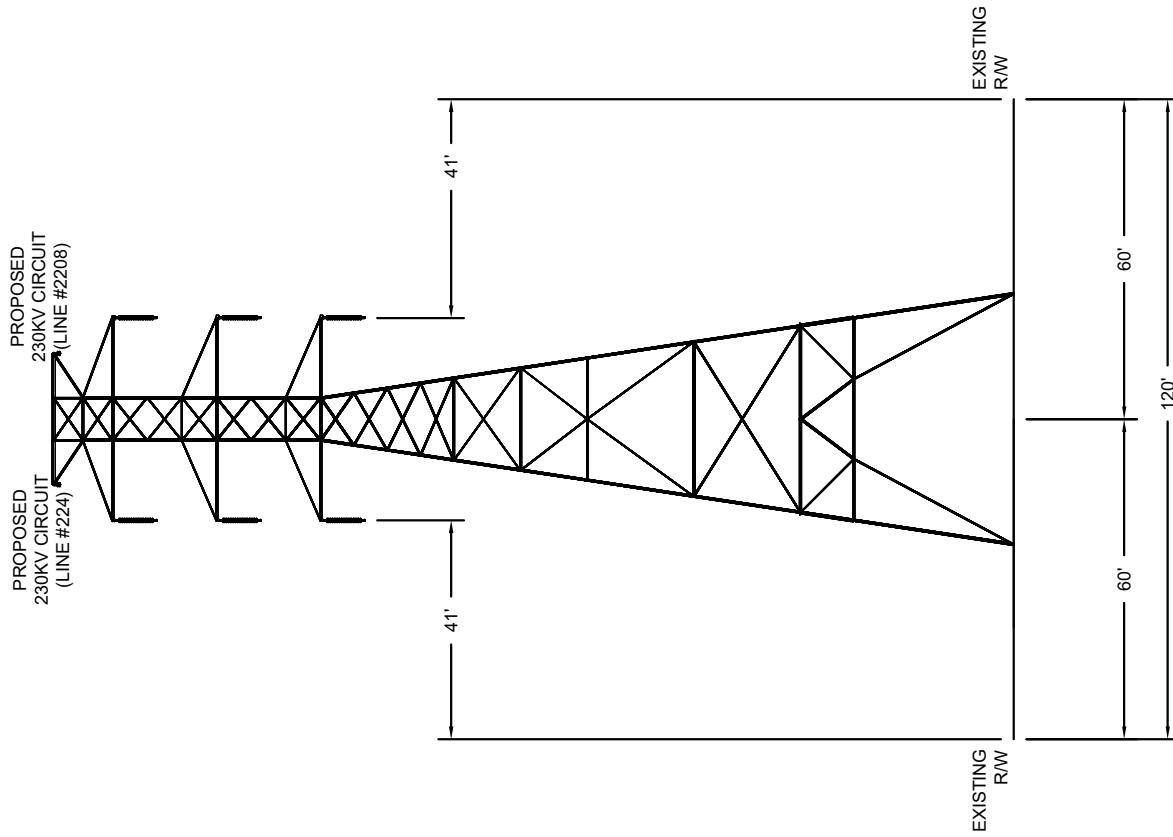
TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

## NOTES:

1. Existing structure shown with approximate average height of 180' and does not include foundation reveal.
2. Approximate average height is measured from the groundline at structure centerline.



## STRUCTURE 224/52-224/59 PROPOSED CONFIGURATION



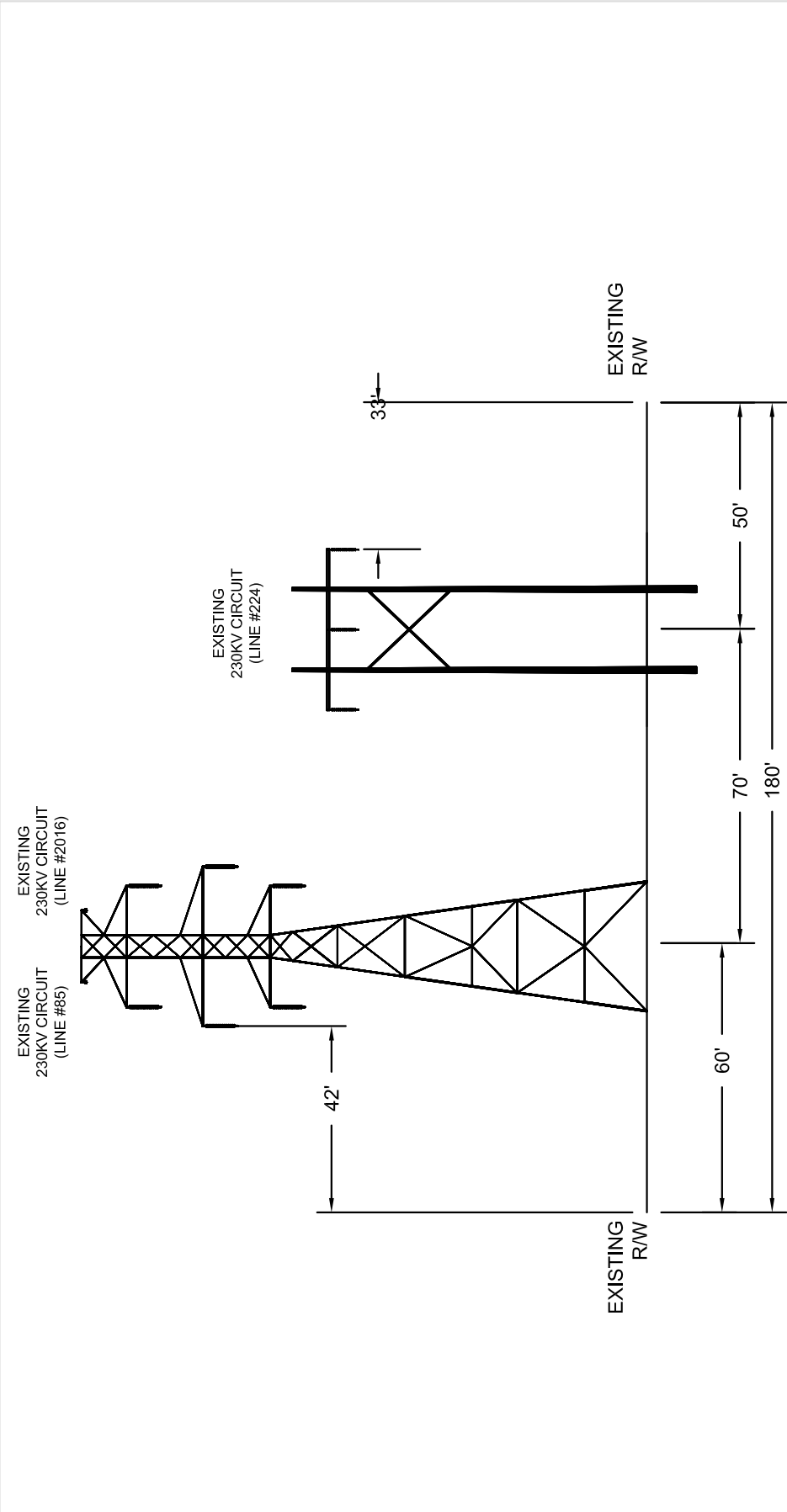
TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

### NOTES:

1. Proposed structure shown with approximate average height of 180' and does not include foundation reveal.
2. Approximate average height is measured from the groundline at structure centerline.



**STRUCTURE 224/297- LANEXA**  
**EXISTING CONFIGURATION**

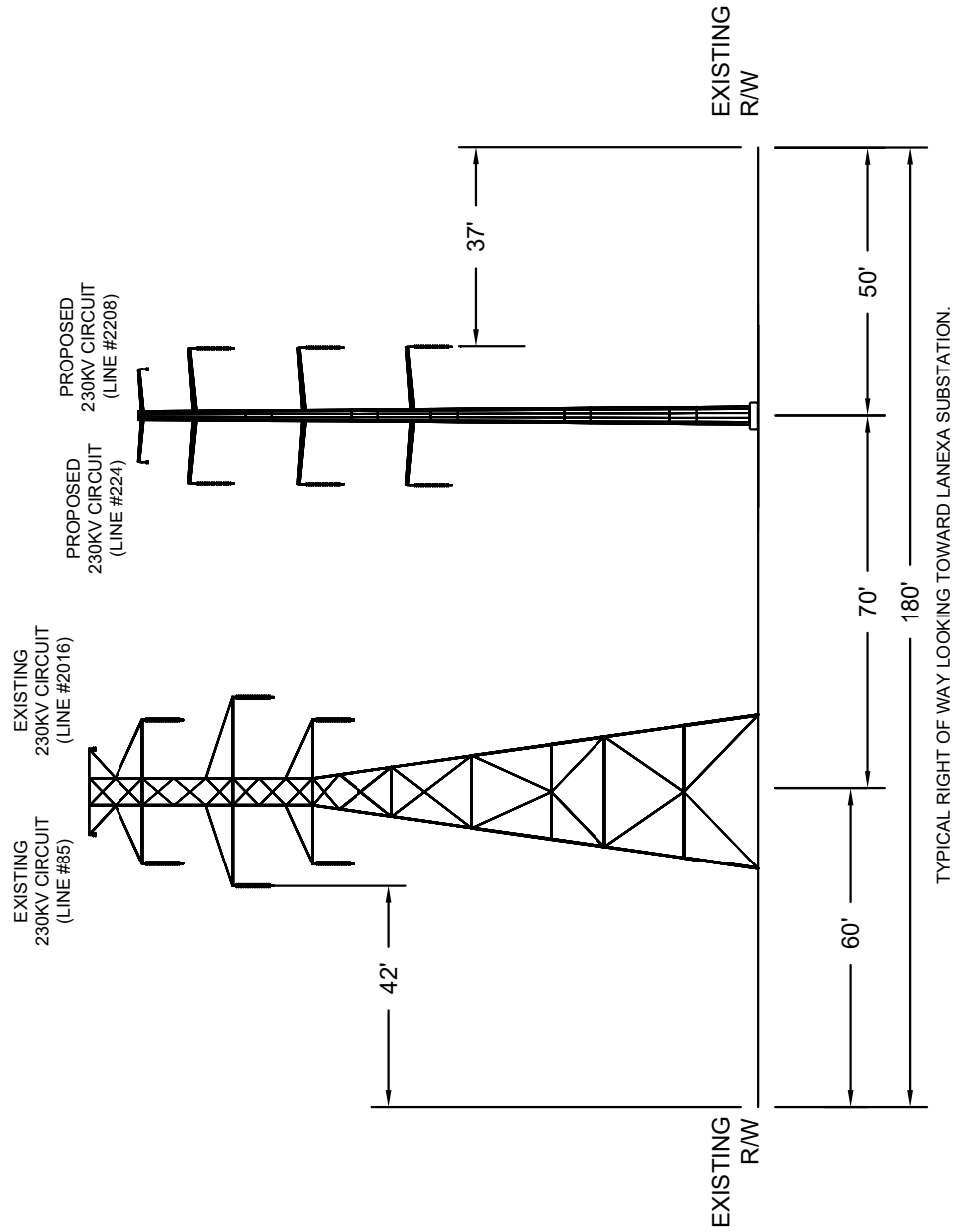


TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

- NOTES:
1. Existing structure shown with approximate average height of 79' (line 224) and does not include foundation reveal.
  2. Approximate average height is measured from the groundline at structure centerline.



## STRUCTURE 224/297 - LANEXA PROPOSED CONFIGURATION

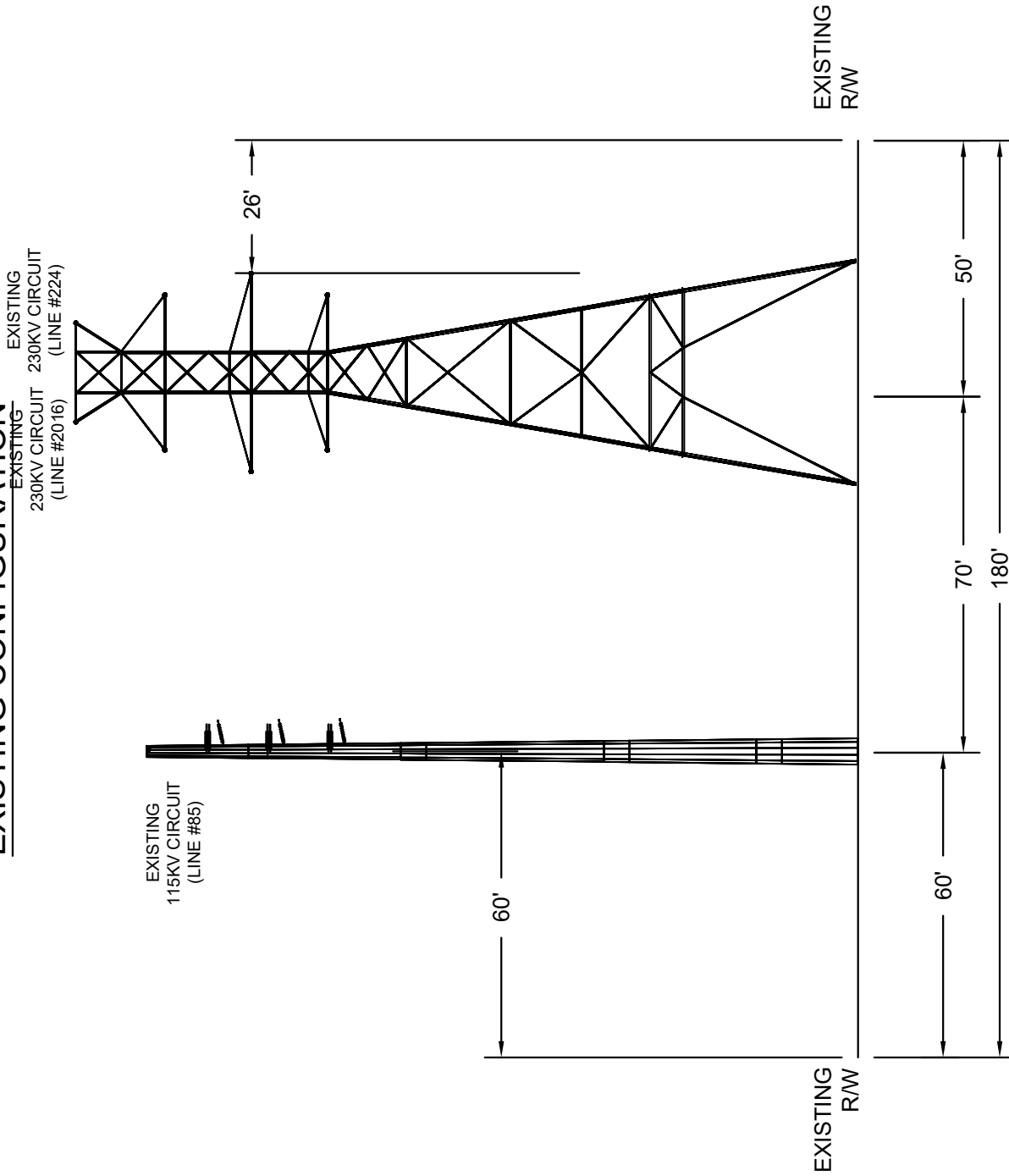


- NOTES:
1. Proposed structure shown with approximate average height of 115' (line 224) and does not include foundation reveal.
  2. Approximate average height is measured from the groundline at structure centerline.
  3. Information contained on drawing is to be considered preliminary in nature and subject to changed based on final design.



# STRUCTURE 224/297 (DIASCUND CREEK)

## EXISTING CONFIGURATION



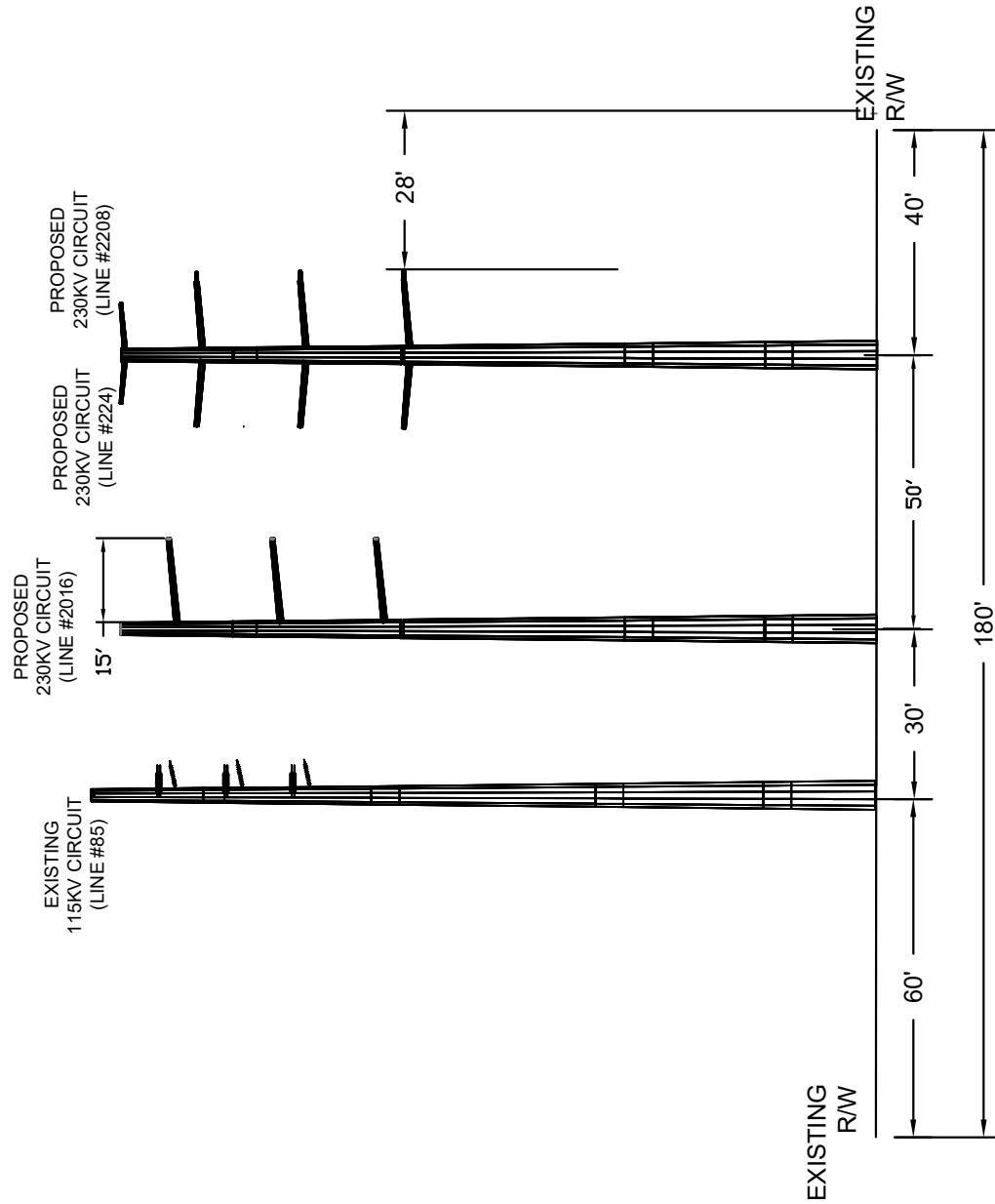
TYPICAL RIGHT OF WAY LOOKING TOWARD LANEXA SUBSTATION.

### NOTES:

1. Existing structure shown with approximate average height of 141' (line 224 & 2016) and does not include foundation reveal.
2. Approximate average height is measured from the groundline at structure centerline.



## STRUCTURE 224/297 (DIASCUND CREEK) PROPOSED CONFIGURATION



- NOTES:
1. Proposed structure shown with approximate average height of 140' (line 224) and does not include foundation reveal.
  2. Approximate average height is measured from the groundline at structure centerline.
  3. Information contained on drawing is to be considered preliminary in nature and subject to changed based on final design.



**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

Appendix B ARCHITECTURAL RESOURCES UNDER CONSIDERATION

**Appendix B ARCHITECTURAL RESOURCES UNDER  
CONSIDERATION**







Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

---

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

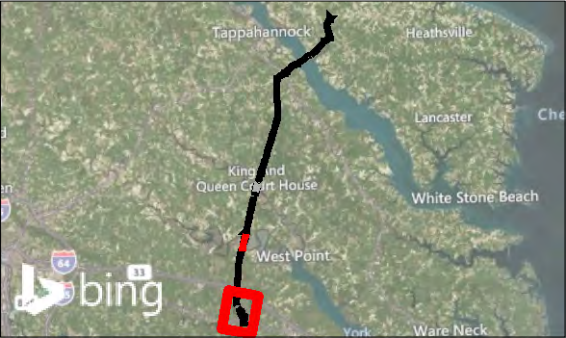
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Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

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(At original document size of 11x17)  
1:24,000

▲ Substation  
◆ Proposed Structure  
■ Existing Structure  
▬ Rebuild Project Limits  
▬ Project Limits, Second Circuit only (PUR-2018-00090)  
▬ Structures and Two Circuits Previously Authorized (PUR-2018-00090)  
□ Architectural Resource  
□ 0.5-Mile Buffer  
□ 1-Mile Buffer



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Orthomimagery © Bing Maps  
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





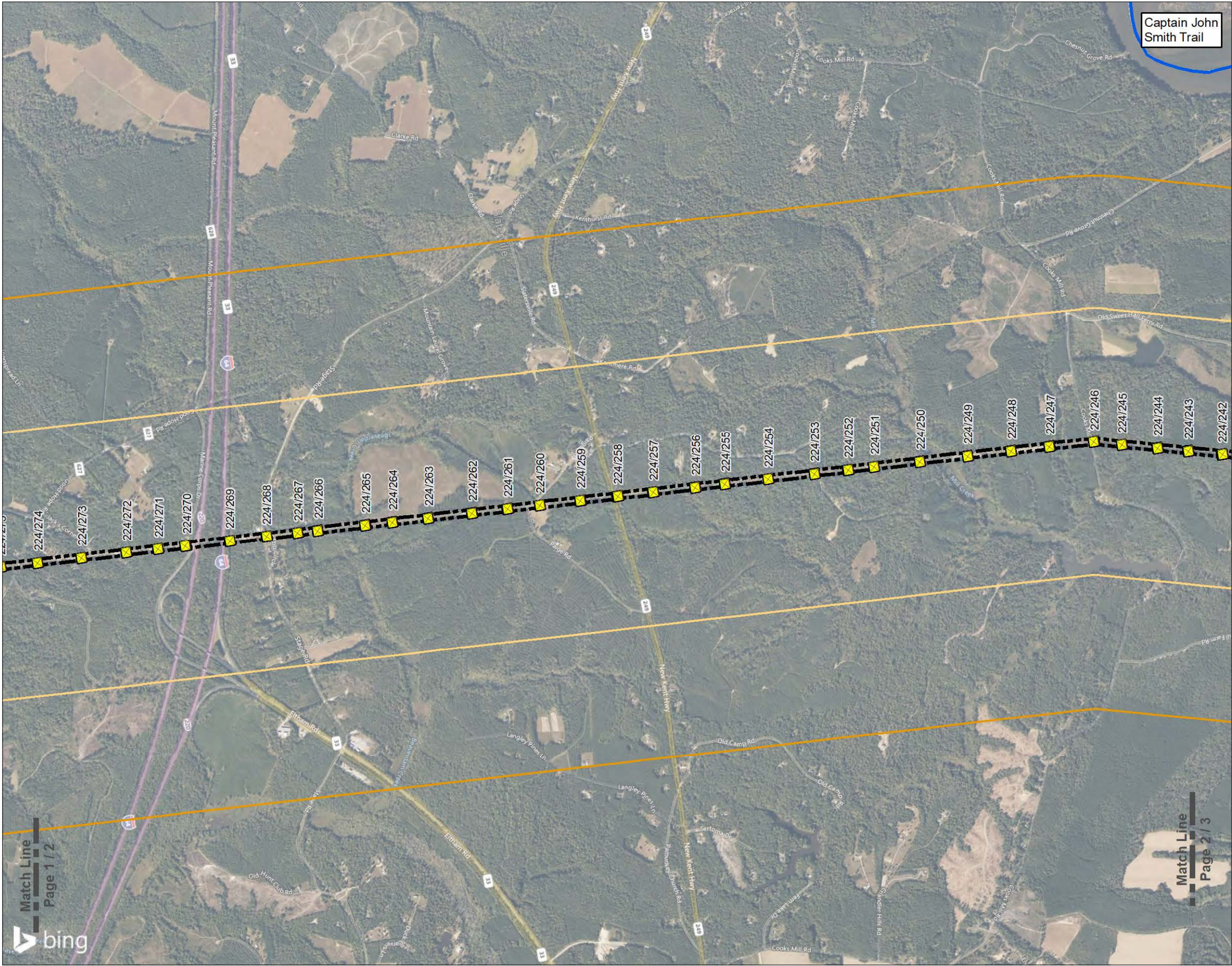


Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

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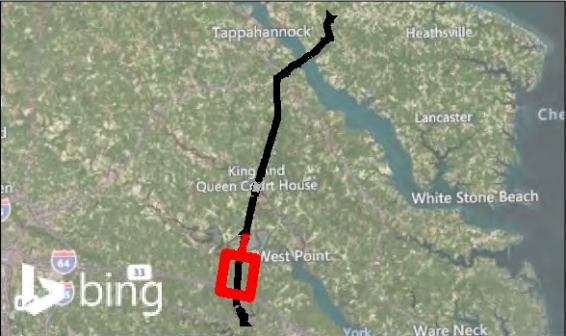
Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

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1:24,000

- Substation
- Proposed Structure
- Existing Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthomimagery © Bing Maps
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





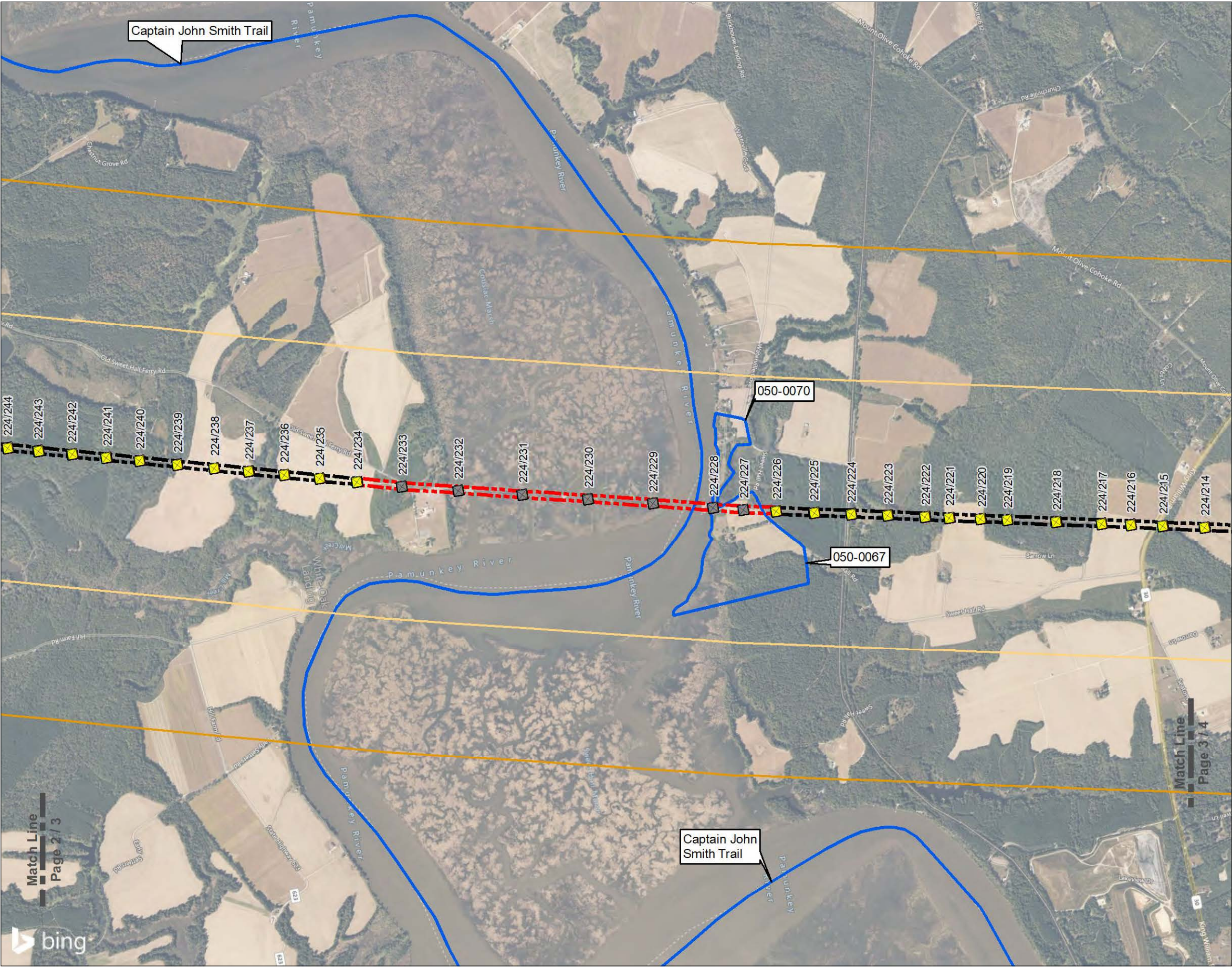


Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

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Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

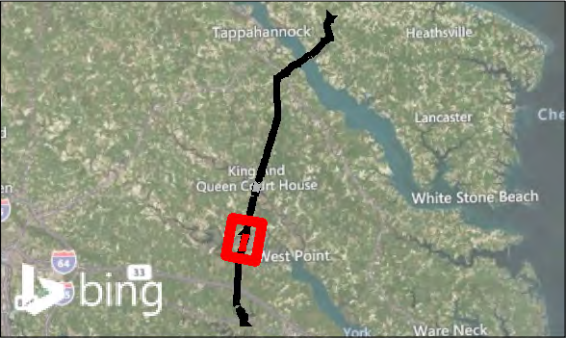
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Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

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(At original document size of 11x17)  
1:24,000

▲ Substation  
■ Proposed Structure  
■ Existing Structure  
▭ Rebuild Project Limits  
▭ Project Limits, Second Circuit only (PUR-2018-00090)  
▭ Structures and Two Circuits Previously Authorized (PUR-2018-00090)  
■ Architectural Resource  
■ 0.5-Mile Buffer  
■ 1-Mile Buffer



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Orthoimagery © Bing Maps  
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Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

Client/Project **Dominion Energy Virginia** 203401404  
**Lanexa-Northern Neck 230 kV**  
**Transmission Line Full Rebuild**

Project Location **New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

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(At original document size of 11x17)  
1:24,000

▲ Substation

■ Proposed Structure

■ Existing Structure

▬ Rebuild Project Limits

▬ Project Limits, Second Circuit only (PUR-2018-00090)

▬ Structures and Two Circuits Previously Authorized (PUR-2018-00090)

▬ Architectural Resource

▬ 0.5-Mile Buffer

▬ 1-Mile Buffer



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)

3. Orthomagery © Bing Maps

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Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

---

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

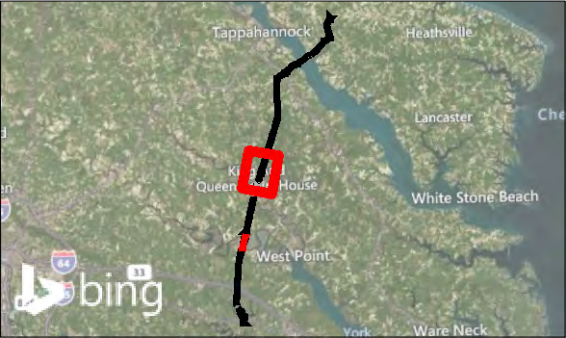
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Project Location New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

- Substation
- Proposed Structure
- Existing Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer

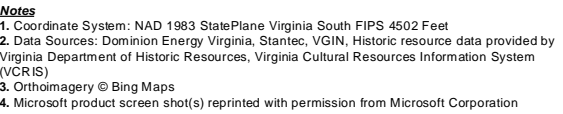
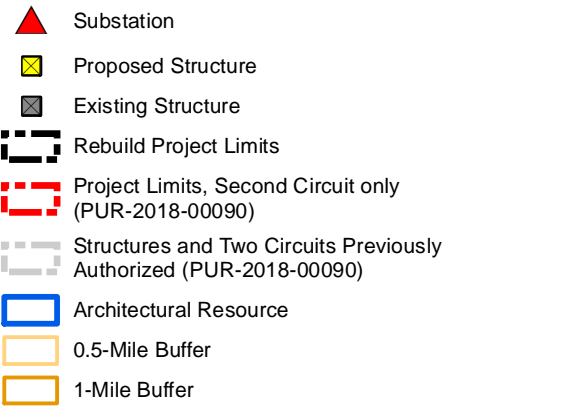
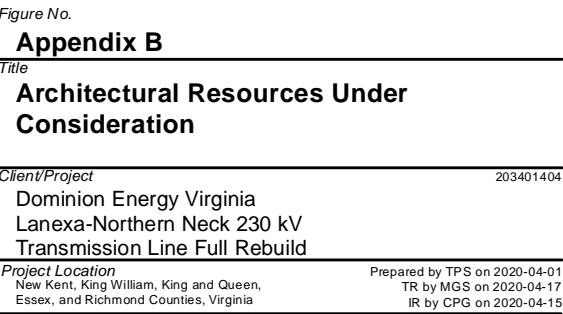


**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Orthomimagery © Bing Maps  
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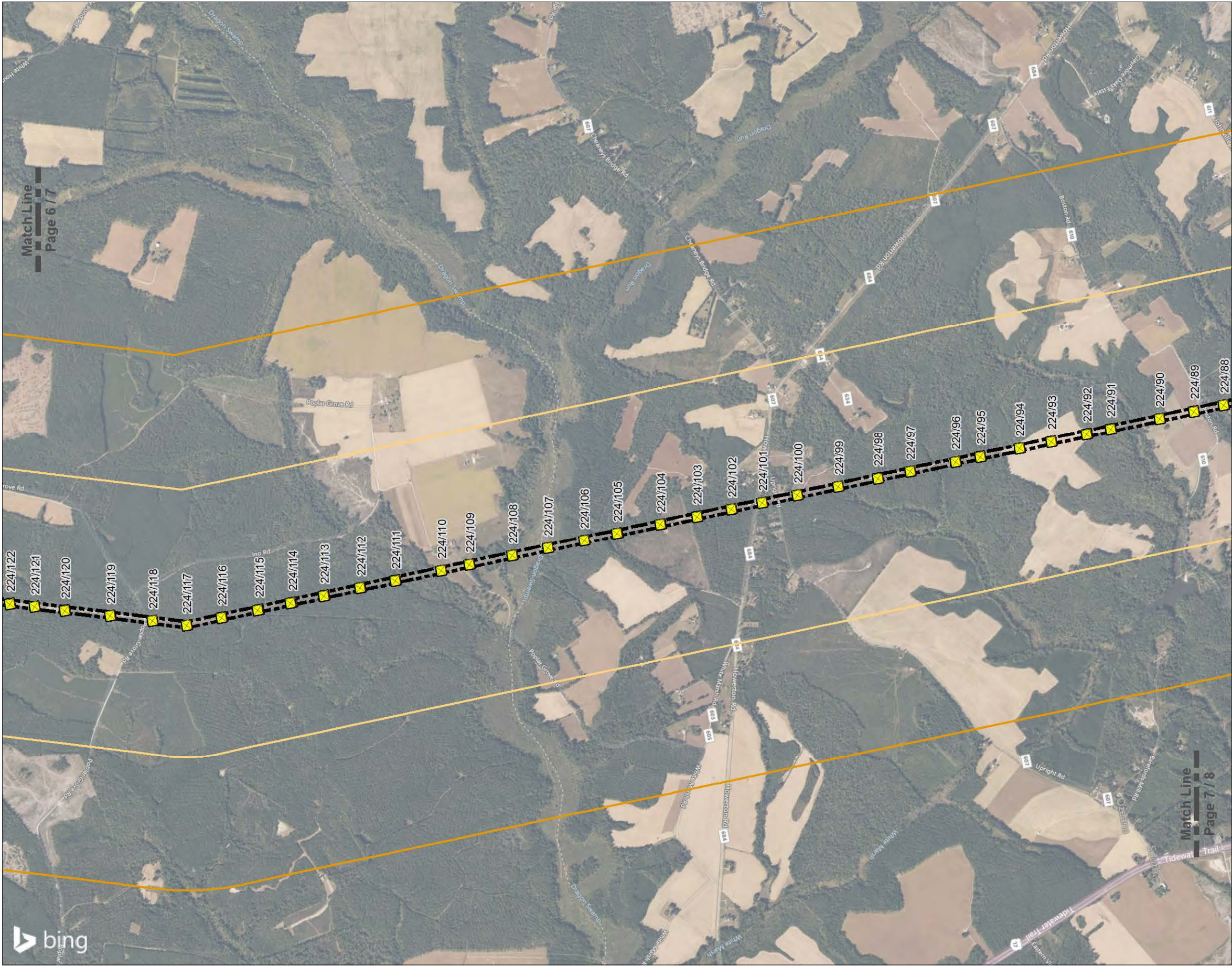


Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

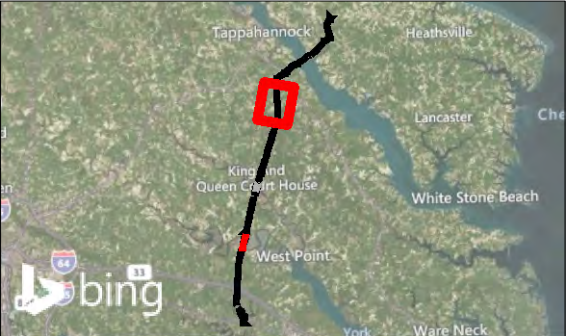
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Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

North Arrow

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

- Substation
- Proposed Structure
- Existing Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Bing Maps
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Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

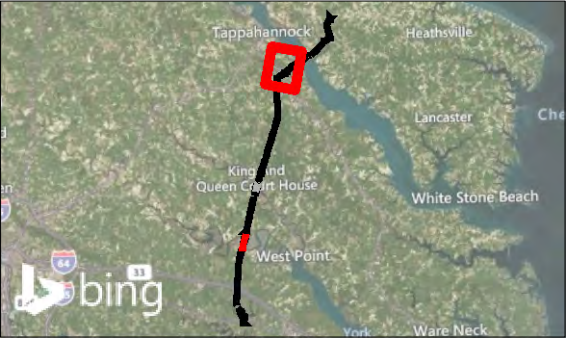
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Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

---

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

▲ Substation  
■ Proposed Structure  
■ Existing Structure  
▭ Rebuild Project Limits  
▭ Project Limits, Second Circuit only (PUR-2018-00090)  
▭ Structures and Two Circuits Previously Authorized (PUR-2018-00090)  
■ Architectural Resource  
■ 0.5-Mile Buffer  
■ 1-Mile Buffer



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Orthoimagery © Bing Maps  
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





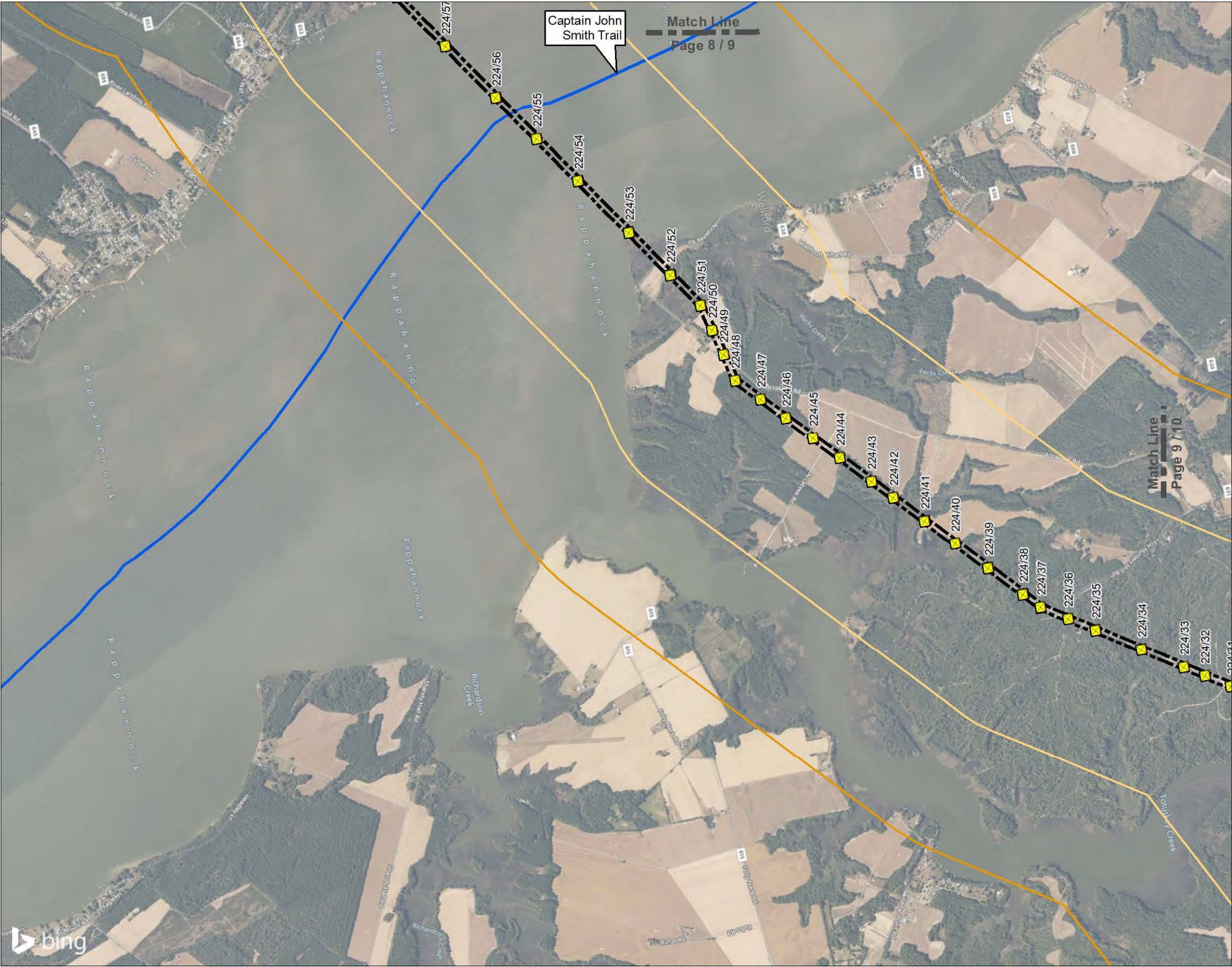


Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

---

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

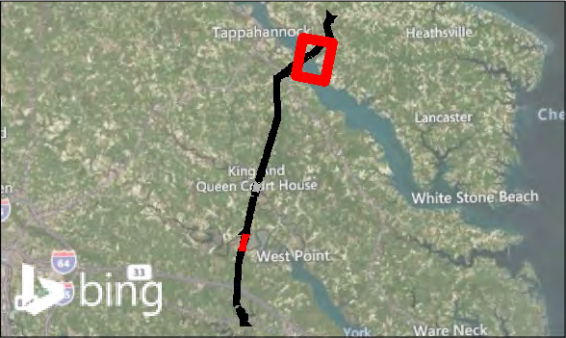
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Project Location New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia  
Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

---

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

▲ Substation  
◆ Proposed Structure  
■ Existing Structure  
▭ Rebuild Project Limits  
▭ Project Limits, Second Circuit only (PUR-2018-00090)  
▭ Structures and Two Circuits Previously Authorized (PUR-2018-00090)  
▭ Architectural Resource  
▭ 0.5-Mile Buffer  
▭ 1-Mile Buffer



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Orthoimagery © Bing Maps  
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Figure No. **Appendix B**

Title **Architectural Resources Under Consideration**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

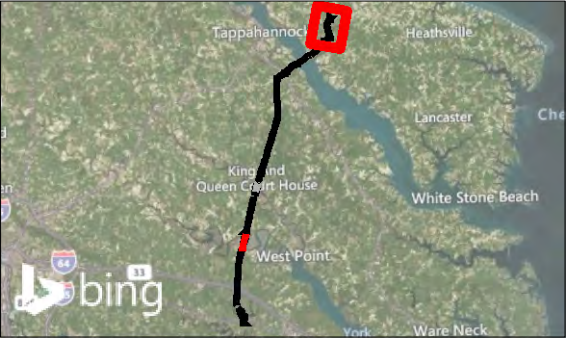
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Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

North Arrow

Scale: 0, 2,000, 4,000 Feet  
(At original document size of 11x17)  
1:24,000

- Substation
- Proposed Structure
- Existing Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- 0.5-Mile Buffer
- 1-Mile Buffer



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Bing Maps
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**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

Appendix C PHOTOSIMULATIONS

## Appendix C PHOTOSIMULATIONS





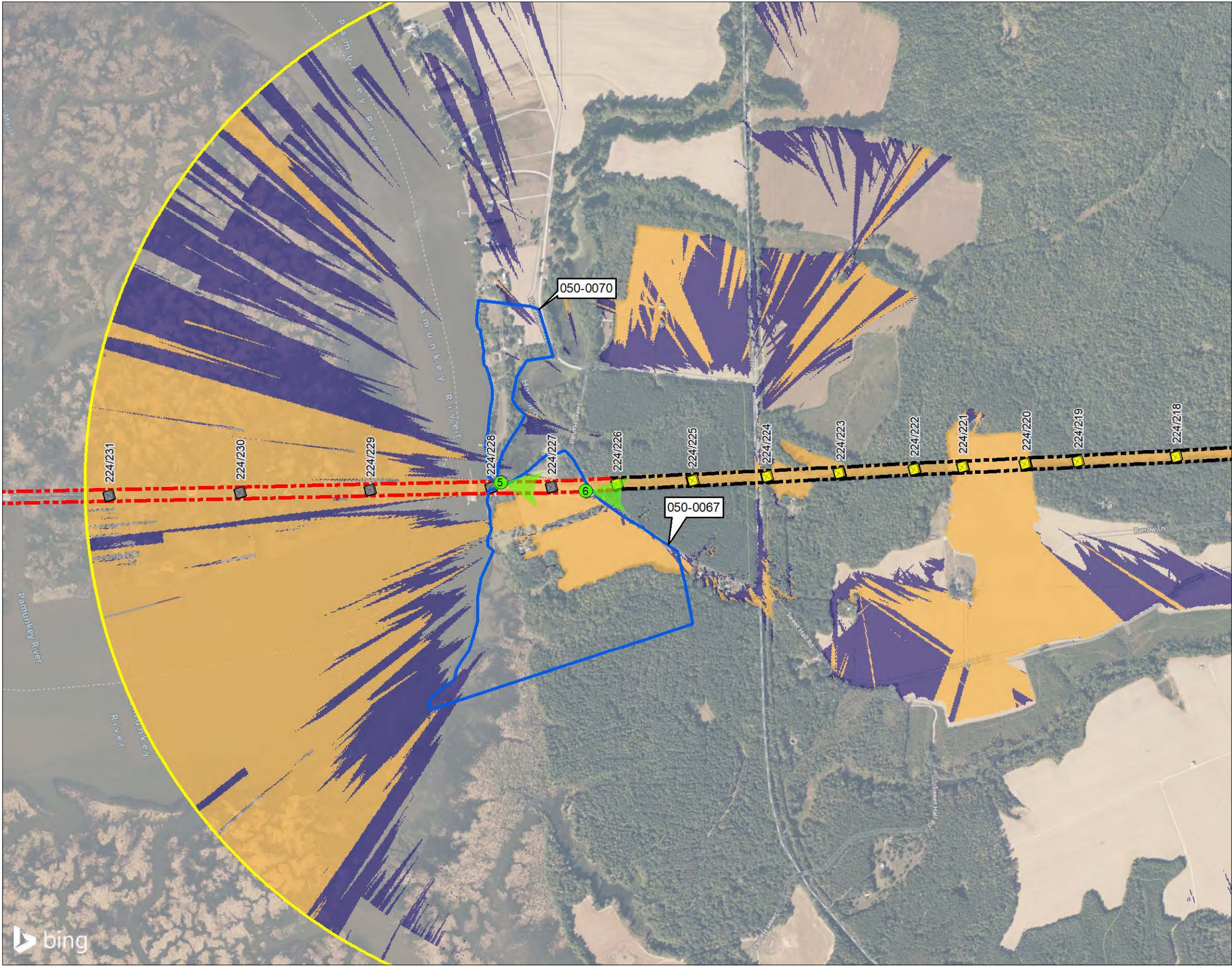
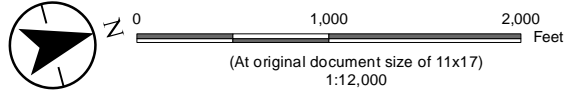


Figure No. **Appendix C**  
Title **Photo Location Map**

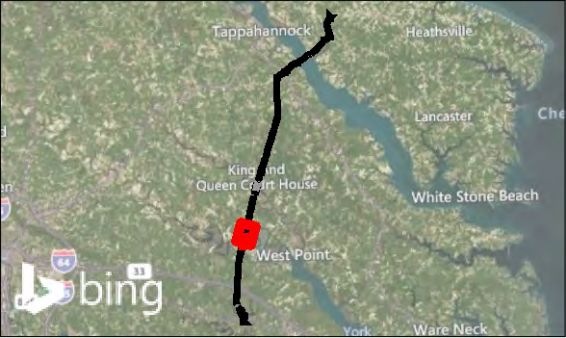
Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-07  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-07



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- Viewshed Study Limits
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis
5. Orthoimagery © Bing Maps
6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





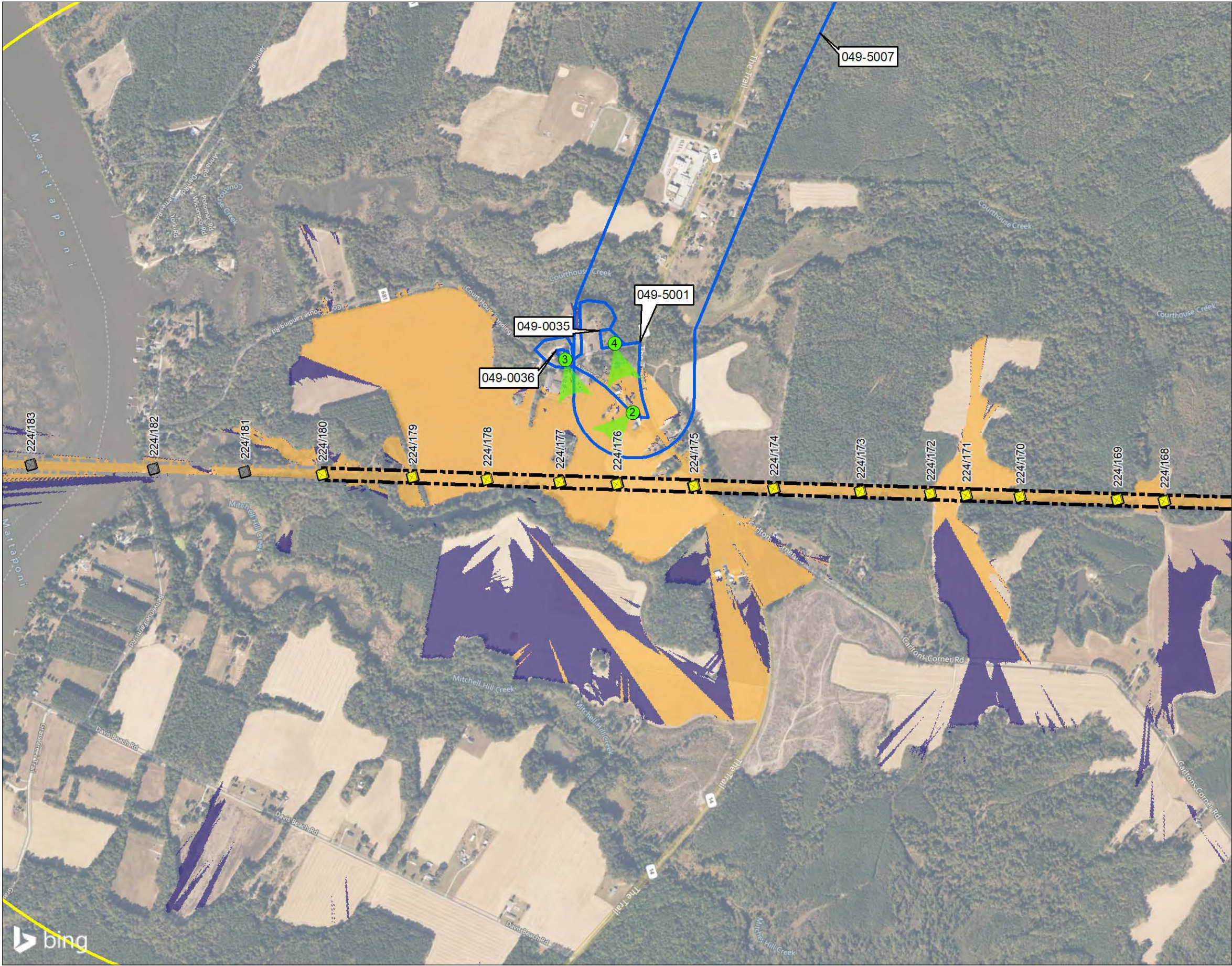
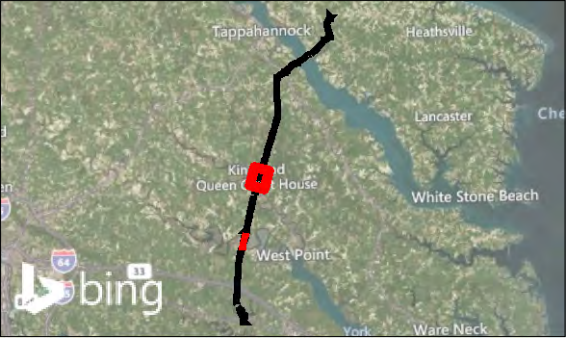
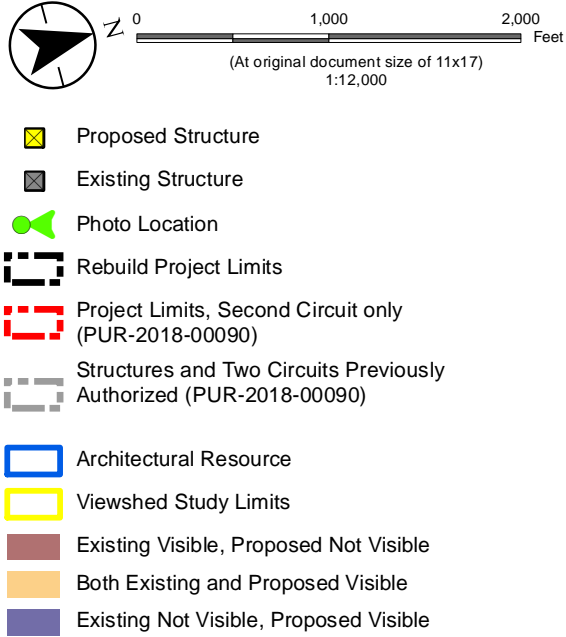


Figure No. **Appendix C**  
Title **Photo Location Map**

Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-07  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-07



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR  
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis  
5. Orthoimagery © Bing Maps  
6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



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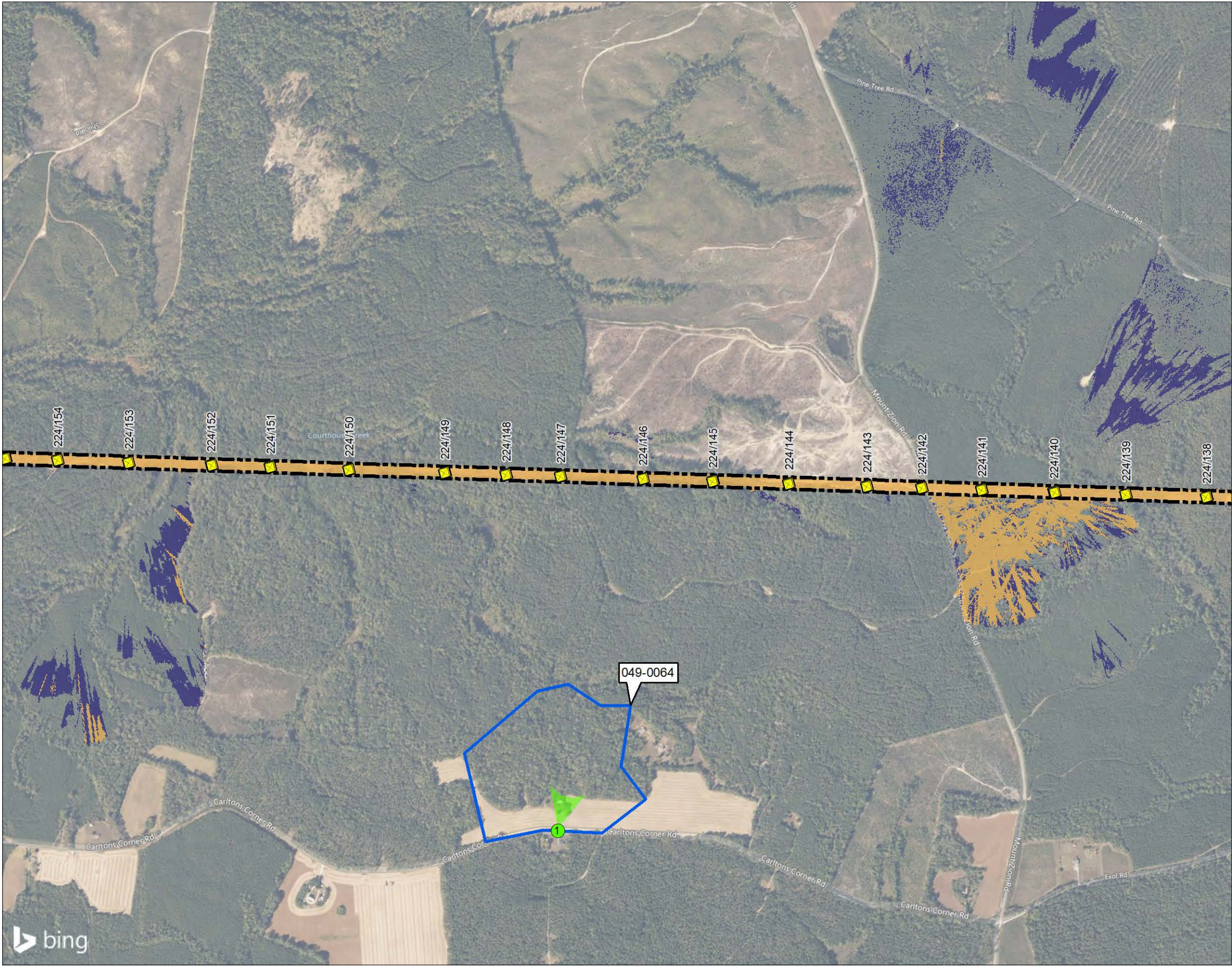
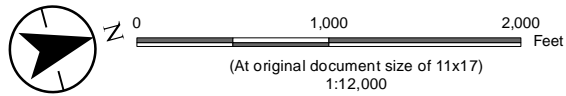


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Title **Photo Location Map**

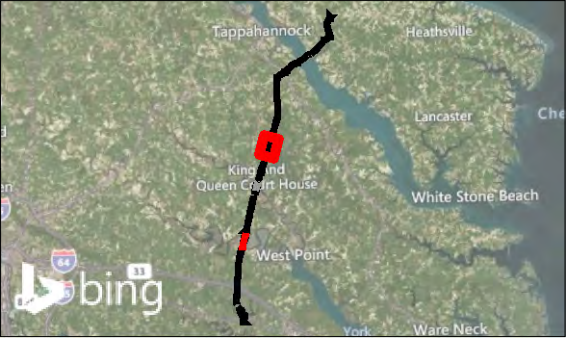
Client/Project 203401404  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-07  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-07



- Proposed Structure
- Existing Structure
- Photo Location
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Architectural Resource
- Viewshed Study Limits
- Existing Visible, Proposed Not Visible
- Both Existing and Proposed Visible
- Existing Not Visible, Proposed Visible



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Viewshed analysis produced from digital elevation model and digital surface model derived from VGIN LIDAR
4. Only structures within 1-Mile from eligible architectural resources and within the project limits were considered in this analysis
5. Orthoimagery © Bing Maps
6. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation







Photograph provided by Stantec

**OP 1 Existing**  
Rose Garden (DHR #049-0064)





Representation provided by Stantec

**OP 1 Proposed (no visibility)**  
Rose Garden (DHR #049-0064)





Photograph provided by Stantec

**OP 2 Existing**  
Walkerton Battlefield (DHR #049-5007),  
King & Queen Courthouse Historic District (DHR #049-5001)





Representation provided by Stantec

**OP 2 Proposed**  
Walkerton Battlefield (DHR #049-5007),  
King & Queen Courthouse Historic District (DHR #049-5001)





Photograph provided by Stantec

**OP 3 Existing**  
King and Queen County Court House (DHR #049-0036),  
King & Queen Courthouse Historic District (DHR #049-5001)





Representation provided by Stantec

**OP 3 Proposed**  
King and Queen County Court House (DHR #049-0036),  
King & Queen Courthouse Historic District (DHR #049-5001)







Photograph provided by Stantec

**OP 4 Existing**

King and Queen County Courthouse Green Historic District (DHR #049-5001),  
Walkerton Battlefield (DHR #049-5007), Immanuel Chapel (DHR #049-0035)





Representation provided by Stantec

**OP 4 Proposed (no visibility)**

King and Queen County Courthouse Green Historic District (DHR #049-5001),  
Walkerton Battlefield (DHR #049-5007), Immanuel Chapel (DHR #049-0035)







Photograph provided by Stantec

**OP 5 Existing**  
Sweet Hall (DHR #050-0067)





Representation provided by Stantec

**OP 5 Proposed**  
Sweet Hall (DHR #050-0067)





Photograph provided by Stantec

**OP 6 Existing**  
Sweet Hall (DHR #050-0067)





Representation provided by Stantec

**OP 6 Proposed**  
Sweet Hall (DHR #050-0067)



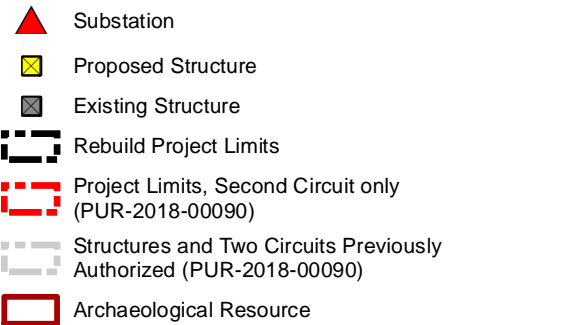
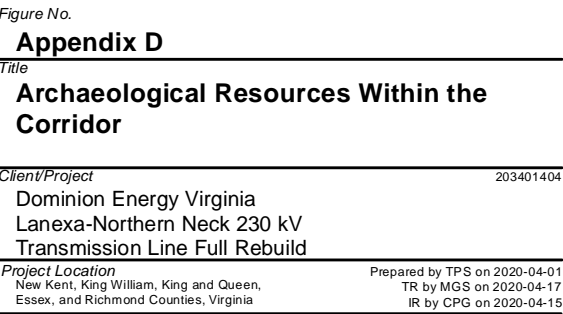
**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA  
LANEXA TO NORTHERN NECK 230KV TRANSMISSION LINE FULL REBUILD PROJECT, NEW  
KENT, KING WILLIAM, KING AND QUEEN, ESSEX, AND RICHMOND COUNTIES, VIRGINIA**

**Appendix D ARCHAEOLOGICAL RESOURCES WITHIN THE CORRIDOR**

**Appendix D ARCHAEOLOGICAL RESOURCES WITHIN THE  
CORRIDOR**







**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, YGIN. Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Bing Maps
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Figure No.  
**Appendix D**

Title  
**Archaeological Resources Within the Corridor**

Client/Project  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

203401404

Project Location  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

020004000

Feet

(At original document size of 11x17)  
1:24,000

Substation

Proposed Structure

Existing Structure

Rebuild Project Limits

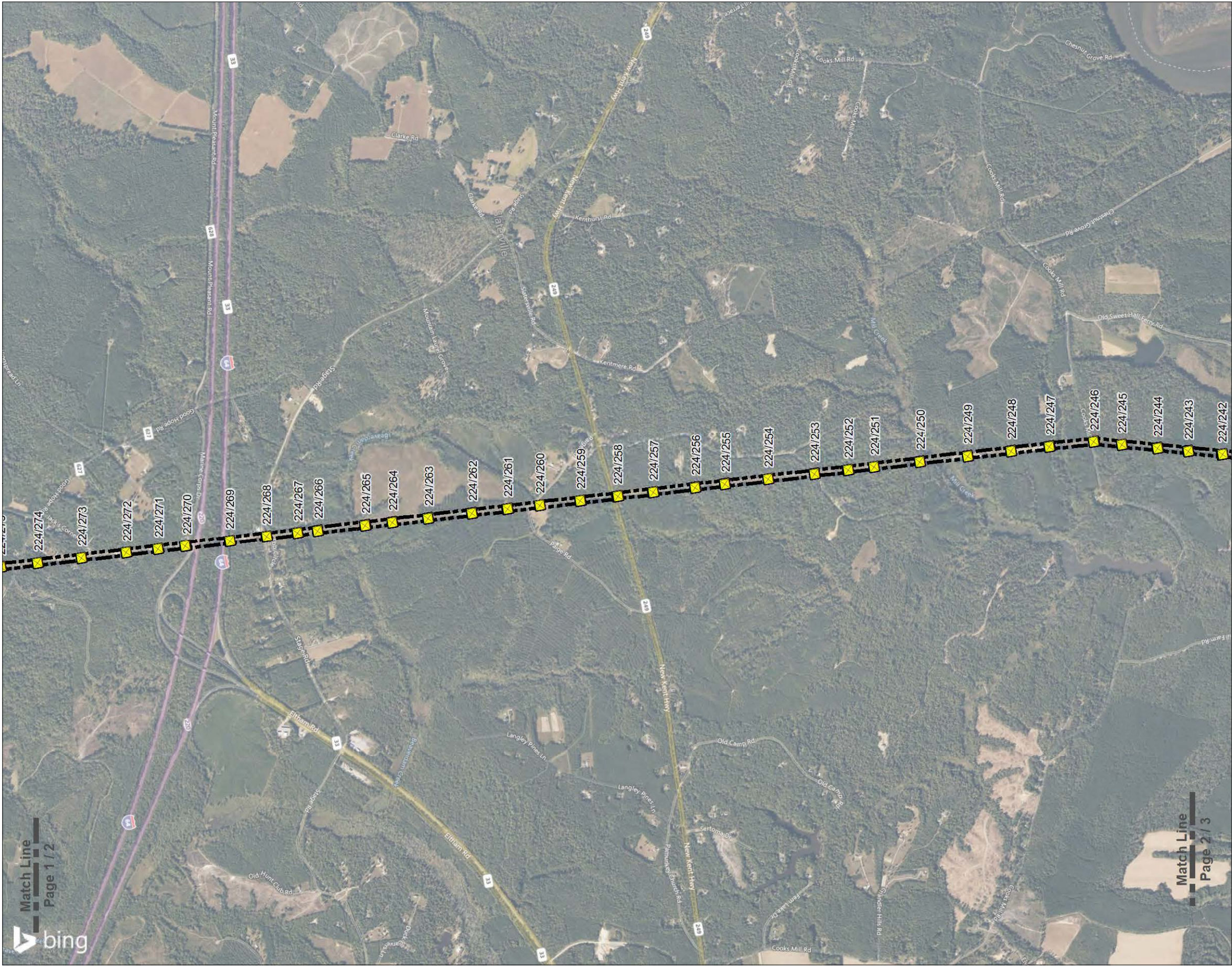
Project Limits, Second Circuit only  
(PUR-2018-00090)

Structures and Two Circuits Previously  
Authorized (PUR-2018-00090)

Archaeological Resource



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
  2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
  3. Orthomimagery © Bing Maps
  4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation





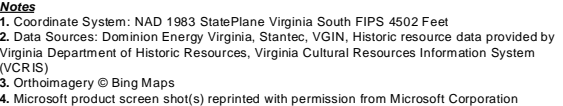
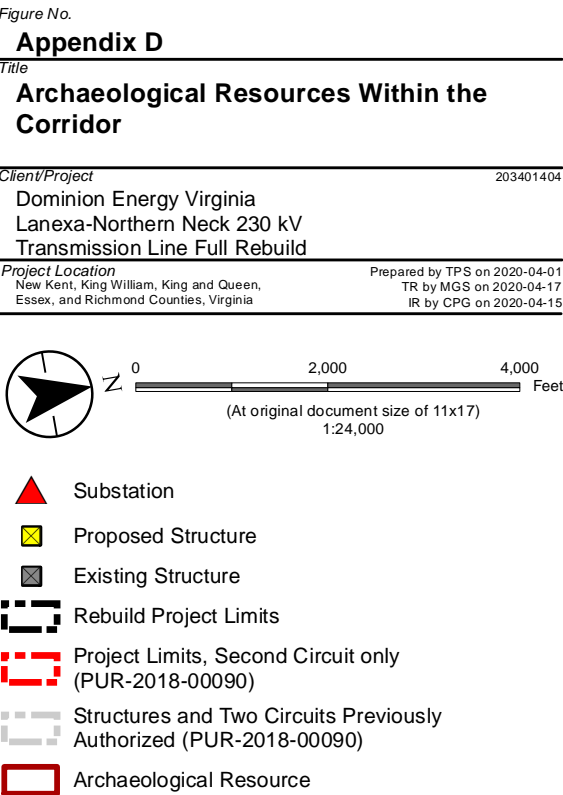






Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

▲ Substation

▣ Proposed Structure

▣ Existing Structure

▬ Rebuild Project Limits

▬ Project Limits, Second Circuit only (PUR-2018-00090)

▬ Structures and Two Circuits Previously Authorized (PUR-2018-00090)

▭ Archaeological Resource



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)

3. Orthoimagery © Bing Maps

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Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild**

203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia**

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

▲ Substation

■ Proposed Structure

■ Existing Structure

▬ Rebuild Project Limits

▬ Project Limits, Second Circuit only (PUR-2018-00090)

▬ Structures and Two Circuits Previously Authorized (PUR-2018-00090)

▭ Archaeological Resource



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)

3. Orthomagery © Bing Maps

4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation







Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

North arrow pointing up and scale bar showing 0, 2,000, 4,000 Feet. (At original document size of 11x17) 1:24,000

- Substation
- Proposed Structure
- Existing Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Archaeological Resource



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)

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Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **203401404**  
Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild

---

Project Location **203401404**  
New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia

Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

---

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

▲ Substation  
■ Proposed Structure  
■ Existing Structure  
--- Rebuild Project Limits  
--- Project Limits, Second Circuit only (PUR-2018-00090)  
--- Structures and Two Circuits Previously Authorized (PUR-2018-00090)  
□ Archaeological Resource



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
3. Orthoimagery © Bing Maps  
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Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

North arrow pointing up, labeled 'N'. Scale bar: 0, 2,000, 4,000 Feet. (At original document size of 11x17) 1:24,000

- Substation (Red triangle)
- Proposed Structure (Yellow square)
- Existing Structure (Grey square)
- Rebuild Project Limits (Dashed black line)
- Project Limits, Second Circuit only (PUR-2018-00090) (Red dashed line)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090) (Grey dashed line)
- Archaeological Resource (Red outline)



**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthomimagery © Bing Maps
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Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

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0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:24,000

▲ Substation  
◆ Proposed Structure  
■ Existing Structure  
--- Rebuild Project Limits  
--- Project Limits, Second Circuit only (PUR-2018-00090)  
--- Structures and Two Circuits Previously Authorized (PUR-2018-00090)  
□ Archaeological Resource



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet  
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)  
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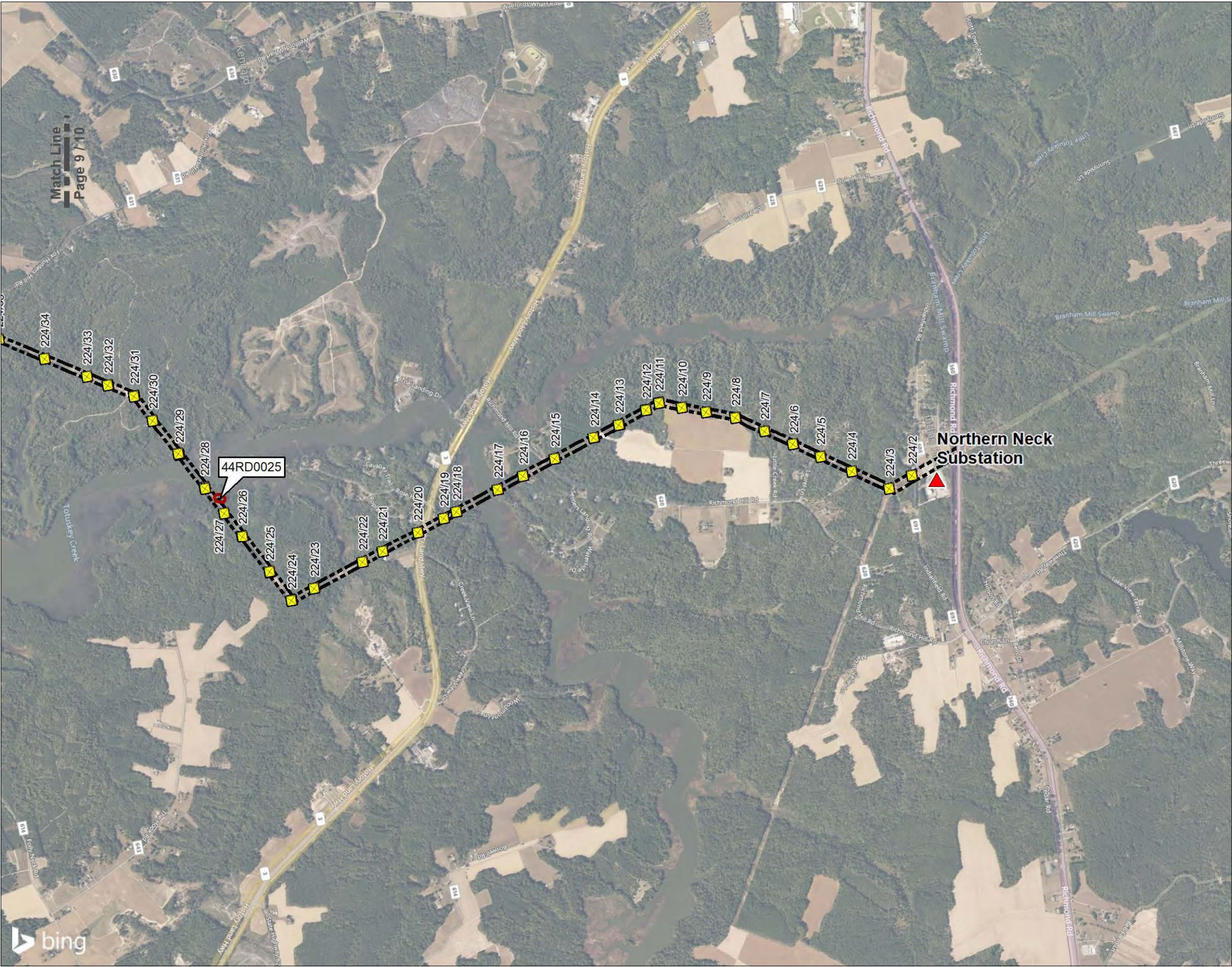


Figure No. **Appendix D**

Title **Archaeological Resources Within the Corridor**

---

Client/Project **Dominion Energy Virginia  
Lanexa-Northern Neck 230 kV  
Transmission Line Full Rebuild** 203401404

---

Project Location **New Kent, King William, King and Queen,  
Essex, and Richmond Counties, Virginia** Prepared by TPS on 2020-04-01  
TR by MGS on 2020-04-17  
IR by CPG on 2020-04-15

North Arrow and Scale: 0, 2,000, 4,000 Feet  
(At original document size of 11x17)  
1:24,000

- Substation
- Proposed Structure
- Existing Structure
- Rebuild Project Limits
- Project Limits, Second Circuit only (PUR-2018-00090)
- Structures and Two Circuits Previously Authorized (PUR-2018-00090)
- Archaeological Resource



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Data Sources: Dominion Energy Virginia, Stantec, VGIN, Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
3. Orthoimagery © Bing Maps
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October 8, 2020

**VIA Email**

Ms. Lane Carr  
Siting and Permitting Specialist  
Dominion Energy  
10900 Nuckols Rd., 4<sup>th</sup> Floor  
Glen Allen, VA 23060

**RE: Dominion Energy Virginia's Proposed Lanexa-Northern Neck 230kV Transmission Line #224 Rebuild and New 230kV Line Project**

Dear Ms. Carr:

The Virginia Outdoors Foundation (VOF) thanks you for the advance notice of the above referenced project and the opportunity to provide direct comments regarding upgrades to this electric transmission corridor running through New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia.

VOF, an agency of the Commonwealth, was established by the General Assembly in 1966 to promote the preservation of Virginia's natural and cultural resources by encouraging private philanthropy in fulfillment of state policy. As a result of Virginia's commitment to ensure a vibrant natural environment for today and future generations, VOF owns thousands of acres managed for public access and holds more than 4,200 open-space easements across the Commonwealth, which protect over 850,000 acres.

An open-space easement is a legal interest in real property that creates a relationship between the holders of the easement and the property owner. By means of the easement, VOF has an interest in specific conservation values of the property and a legal obligation to protect these values. VOF easements provide important public benefits by protecting in perpetuity significant tracts of mostly undeveloped land which may contribute to the protection of water quality, productive soils, natural heritage resources, historic resources, and scenic viewsheds. VOF easements represent over \$1 billion of public investment and fulfillment of Title XI of the Virginia Constitution and other public policies to ensure conservation of natural and cultural resources.

Based on the materials VOF received from you on October 1, 2020, our understanding of the proposed Lanexa-Northern Neck 230kV transmission line rebuild project is that it will consist of replacing aging infrastructure that is nearing the end of its service life in addition to addressing future reliability concerns. The project will rebuild, within the existing utility right-of-way, approximately 38.3 miles of the existing Line #224, on double circuit structures. Additionally, Dominion will be installing nearly 40.5 miles of a new 230kV Lanexa-Northern Neck



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Transmission Line co-located on double circuit structures on this line, including adding a second circuit to the Pamunkey River Crossing (Partial Rebuild Project, Case No. PUR-2018-00090).

According to your recent emails, these proposed changes and upgrades along line #224 will occur completely within the existing utility right-of-way, but will result in the replacement of the original single circuit, wooden H-frame structures with new, double-circuit, weathering steel monopoles. In a recent email response to VOF, you informed us that existing wooden H-frame structures currently measure approximately 65-70' in height, while it is estimated that the replacement monopoles will increase to approximately 100-115' in height.

In reviewing the specific project documentation, VOF found the following:

*Existing Open-Space Easements traversed by the 230kV line (#224) corridor:*

- ESX-04341
- ESX-04446

*Existing Open-Space Easements within ½ mile of the existing 230kV line (#224) corridor:*

- ESX-03783

Based on our own internal review and analysis of this rebuild project in comparison with the above-referenced open-space easements, VOF has determined that the proposed rebuild project will not negatively impact any of the stated conservation values these easements protect. VOF acknowledges that the proposed activities and installation of the replacement structures will all be occurring within the existing utility right-of-way. In addition, VOF appreciates Dominion's choice to replace the old wooden H-frame structures with monopole structures of weathering steel; we believe this will help minimize potential glare and thereby reduce any visual impact these new structures may have on the landscape and surrounding community.

Again, thank you for the notice and opportunity to comment on this project. We look forward to working with you and Dominion Energy in the continued planning and evolution of this project. If you have any further questions or comments, please feel free to contact me at (804) 577-3337 or [mlittle@vofonline.org](mailto:mlittle@vofonline.org).

Sincerely,



Martha Little  
Deputy Director

CC: Julia Wellman, via email



**From:** [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)  
**To:** [Gray, Corey](#)  
**Subject:** FW: Re: Proposed Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New Line Project  
**Date:** Wednesday, September 16, 2020 3:52:15 PM  
**Attachments:** [image001.png](#)

---

2.F response for DCR.

**From:** Rhur, Roberta <[robbie.rhur@dcr.virginia.gov](mailto:robbie.rhur@dcr.virginia.gov)>  
**Sent:** Wednesday, September 16, 2020 3:17 PM  
**To:** Rachel M Studebaker (Services - 6) <[Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)>  
**Subject:** [EXTERNAL] Re: Proposed Lanexa to Northern Neck 230 kV Transmission Line #224 Rebuild and New Line Project

Afternoon:

I have reviewed the project and it does not appear to impact any DCR PRR resources.  
Thank you

On Fri, Sep 4, 2020 at 11:30 AM [Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)  
<[Rachel.M.Studebaker@dominionenergy.com](mailto:Rachel.M.Studebaker@dominionenergy.com)> wrote:

Ms. Rhur,

Please see the attached letter and project map notifying you of the proposed transmission line rebuild project located in New Kent, King William, King and Queen, Essex, and Richmond Counties, Virginia.

Please contact me with any questions or for additional information.

Thank you,

*Rachel Studebaker*  
Environmental Specialist II  
Dominion Energy Services  
120 Tredegar Street, Richmond, VA 23219  
Office: (804) 273-4086  
Cell: (804) 217-1847



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--

Robbie Rhur  
DCR VOP Project Planner and Environmental Review Coordinator  
600 East Main Street  
Richmond VA 23219  
804-371-2594

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September 15, 2020

Mr. Lane Carr  
Dominion Energy Virginia  
10900 Nuckols Road, 4<sup>th</sup> Floor  
Glen Allen, Virginia 23060

RE: Dominion Energy

Dear Mr. Carr"

As per the request in your September 15, 2020 letter, the Virginia Department of Aviation has reviewed the proposed Line # 224 Lanexa Substation to Northern Neck Substation rebuild project. Following our review staff has determined that a portion of the proposed project is located within 20,000 linear feet of the Tappahannock Essex Airport. As a result of this proximity to a public use airport, the project sponsor is required to submit a 7460 Airspace Study form to the FAA to determine if any portion of the project will result in the creation of an air hazard to navigation. The study is required for any structure, be it temporary or permanent, that is located within 20,000 linear feet of a public use or military airfield and/or any structure associated with the project such as a tower or crane will reach a height of 200' or more above ground level.

Please feel free to contact me if you have any questions regarding this matter.

Sincerely,

S. Scott Denny  
Senior Aviation Planner  
Virginia Department of Aviation