



**Dominion
Energy®**

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

**Before the State Corporation
Commission of Virginia**

**Clubhouse-Dry Bread Line
#2201 and Dry Bread-Lakeview
Line #254 230 kV Virginia
Rebuild Project**

Application No. 302

Case No. PUR-2020-00269

Filed: November 18, 2020

Volume 3 of 3

BEFORE THE
STATE CORPORATION COMMISSION
OF VIRGINIA

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

Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254
230 kV Virginia Rebuild Project

Application No. 302

DEQ Supplement

Case No. PUR-2020-00269

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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 Virginia Rebuild 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, the Company proposes in Greensville County, Virginia, the following:

- (i) Rebuild, entirely within existing right-of-way or on Company-owned property, approximately 1.6 miles of the existing 230 kV overhead single circuit Clubhouse-Dry Bread Line #2201 on single circuit structures, which runs from Structure #2201/1A within the Company’s existing Clubhouse Substation to Structure #2201/14 / #254/14 within the Company’s existing Dry Bread Substation;
- (ii) Rebuild, entirely within existing right-of-way or on Company-owned property, approximately 10.9 miles of the existing 230 kV overhead single circuit Dry Bread-Lakeview Line #254 on single circuit structures, which runs from Structure #2201/14 / #254/14 within the Company’s existing Dry Bread Substation to Structure #254/113 at the Virginia state line; and
- (iii) Perform system protection coordination studies and relay resets at Clubhouse and Dry Bread Substations, as well as line terminal upgrade work at Clubhouse Substation.

(collectively, the “Virginia Rebuild Project”).

2. Environmental Analysis

The Company solicited comments from all relevant state and local agencies about the proposed Virginia Rebuild Project in October 2020. Copies of these letters are included as Attachment 2.¹ The DEQ provided a letter in response to the Company’s scoping request for the proposed Virginia Rebuild Project on October 14, 2020. A copy of this letter is included as Attachment 2.1.

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. 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 are 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.

¹ While some of the letters provided in Attachment 2 were inadvertently dated August 27, 2020, they were actually sent to the identified agencies on October 8, 2020.

The existing transmission corridor currently is maintained for transmission facility operations, and no clearing is proposed. The Virginia Rebuild 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 and DEQ requirements are met. The Company's tree clearing methods are described in Section 2.K.

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

The Virginia Rebuild Project is located within the Meherrin watershed, Hydrologic Unit Code 03010204. According to the U.S. Geological Survey ("USGS") topographic quadrangles (Emporia [1963, rev 2019], Skippers [1963, rev 2019], and Barley [1963, rev 2019]), the existing transmission line crosses six named perennial streams and rivers including: Meherrin River, Falling Run, Fontaine Creek, Cattail Creek, Massie Branch, and Collier Branch. The Virginia Department of Conservation and Recreation's ("DCR") Natural Heritage Data Explorer provides information on streams using the National Hydrography Dataset. According to the Data Explorer mapping service, the transmission right-of-way crosses multiple tributaries.

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 Virginia Rebuild Project in October 2020. The VMRC provided comments in a letter dated October 9, 2020 noting that a subaqueous encroachment permit would be required for any encroachments channelward or ordinary high water along non-tidal, natural rivers and streams with a drainage area of five square miles or greater at the crossing location. See [Attachment 2.B.1](#). The right-of-way crosses one VMRC jurisdictional water with drainage areas greater than five square miles, the Meherrin River. A Joint Permit Application ("JPA") will be submitted for review by the VMRC, DEQ and the U.S. Army Corps of Engineers (the "Corps") to authorize jurisdictional crossings and for any impacts to jurisdictional features. See Section 2.D below.

C. Discharge of Cooling Waters

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

D. Tidal and Non-tidal Wetlands

No tidal wetlands were identified within the proposed Virginia Rebuild project area.

Wetlands Impact Consultation

Within the Virginia Rebuild Project right-of-way, the Company delineated wetlands and other waters of the United States using the *Routine Determination Method* as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the *2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Version 2.0). The Company submitted the results of this delineation to the Corps on October 26, 2020 for confirmation. See [Attachment 2.D.1](#). Total jurisdictional resources within the proposed Rebuild Project right-of-way are provided in Table 1 and detailed in [Attachment 2.D.1](#).

Table 1. Jurisdictional Resources within Virginia Rebuild Project Right-of-Way

Resource	Area (±)
Palustrine Forested Wetland	6.3 AC
Palustrine Emergent Wetland	39.0 AC
Palustrine Scrub Shrub	1.8 AC
Open Waters (Palustrine Unconsolidated Bottom)	0.5 AC
Upper Perennial Stream	0.6 AC (3,071 LF)
Lower Perennial Stream	1.0 AC
Intermittent Stream	0.3 AC (1,919 LF)
Jurisdictional Ditch	0.003 AC (21 LF)

The Company solicited comments from the DEQ's Office of Wetland and Stream Protection (OWSP) in October 2020. The Company received a response on October 5, 2020, from the DEQ's OWSP, which recommends that impacts to wetlands and streams should be minimized to the maximum extent practicable. Temporary impacts should be restored to pre-existing conditions, and permanent impacts should be compensated for in accordance with all applicable state regulations and laws. Based on DEQ's review, the project may require a Virginia Water Protection ("VWP") individual permit or general permit coverage. A JPA may be submitted for further evaluation and final permit need determination by DEQ. See [Attachment 2.D.2](#).

Prior to construction, the Company will obtain any necessary permits to impact jurisdictional resources.

E. Solid and Hazardous Waste

On behalf of the Company, C2 Environmental, Inc. (“C2E”) conducted database searches for solid and hazardous wastes, and petroleum release sites within a 0.5-mile radius of the Virginia Rebuild Project. Publicly available data from the Environmental Protection Agency (“EPA”) Facility Registry System (“FRS”) were obtained and include *Comprehensive Environmental Response, Compensation and Liability Act* (“CERCLA”)/Superfund; *Resource Conservation and Recovery Act* (“RCRA”); and brownfield sites. Comparison with the EPA’s NEPAssist Tool resulted in identifying four registered RCRA facilities present within 0.5-mile of the project.

DEQ records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites, petroleum releases, and registered tank facilities within 0.5-mile of the Virginia Rebuild Project. No solid waste management facilities, Voluntary Remediation Program sites, or petroleum release sites were identified, and one registered tank facility was identified. Tables listing these results are included in [Attachment 2.E.1](#).

F. Natural Heritage, Threatened and Endangered Species

On behalf of the Company, C2E conducted online database searches for threatened and endangered species in the vicinity of the Virginia Rebuild Project, including the U.S. Fish and Wildlife (“USFWS”) Information, Planning, and Conservation (“IPaC”) system, the USFWS Critical Habitat for Threatened and Endangered Species Mapper, the USFWS Bald Eagle Concentration Area Map, the Virginia Department of Wildlife Resources (“DWR”) Virginia Fish and Wildlife Information Service (“VAFWIS”), the DWR Northern Long-eared Bat (“NLEB”) Winter Habitat and Roost Trees Map, the DCR, the Natural Heritage Data Explorer (“NHDE”), and the Center for Conservation Biology (“CCB”) Bald Eagle Nest Locator. The results are presented in Table 2 below.

Table 2. Threatened and endangered species within the Virginia Rebuild Project vicinity

Species	Status*	Database	Results
Northern long-eared bat (<i>Myotis septentrionalis</i>)	FT, ST	USFWS-IPaC, DWR-NLEB Winter Habitat and Roost Tree Map	No known hibernacula or summer roosts are identified in the vicinity of the project.

Roanoke logperch (<i>Percina rex</i>)	FE, SE	USFWS-IPaC	Noted as potentially occurring in the vicinity of the project. Because no instream work is proposed, no impacts are expected.
Atlantic pigtoe (<i>Fusconaia masoni</i>)	(P)FT, ST	USFWS-IPaC	Noted as potentially occurring in the vicinity of the project. Because no instream work is proposed, no impacts are expected.
Yellow lance (<i>Elliptio lanceolata</i>)	FT	USFWS-IPaC	Noted as potentially occurring in the vicinity of the project. Because no instream work is proposed, no impacts are expected.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	ST	VAFWIS	Observed within the vicinity of the project.
Green floater (<i>Lasmigona subviridis</i>)	ST	VAFWIS	Observed within the vicinity of the project.
Reclining bulrush (<i>Scirpus flaccidifolius</i>)	ST	DCR-NHDE	Noted as potentially occurring in the vicinity of the project.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	FP	CCB Eagle Nest Locator; USFWS Eagle Concentration Areas	No bald eagle nests are located within 660 feet of the project area. No bald eagle concentration areas are present within the project vicinity.

*FT: federally threatened, FE: federally endangered, FP: federally protected, ST: stated threatened, SE: state endangered, (P): proposed

A copy of the database search results can be found in [Attachment 2.F.1](#). Additionally, the Company requested comments from the USFWS, DWR and DCR regarding the Virginia Rebuild Project in October 2020. A response from DCR was received via an email dated October 8, 2020 stating that there are no impacts to Planning, Parks and Recreation (“PRR”) resources. See [Attachment 2.F.2](#). The response from DCR, Division of Natural Heritage is included as [Attachment 2.F.3](#). The response from

DWR is included as Attachment 2.F.4. A project review from the DCR's DNH was received on November 13, 2020, and is included herein as Attachment 2.F.5. The Company will also obtain all necessary permits prior to construction, including authorization from the VMRC, DEQ, and the Corps, and coordination with the DWR, DCR, USFS, and USFWS, as necessary, will take place through the respective permit processes to avoid and minimize impacts to listed species.

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 resubmit project information with completed information services order form and a map to DCR-DNH 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 (e.g., 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

Dutton + Associates was retained by the Company to conduct a Stage I Pre-Application Analysis for the proposed Virginia Rebuild Project. This analysis was completed in August 2020 and submitted to VDHR in November 2020. In addition, the Virginia Cultural Resource Information System (“VCRIS”) inventory was rechecked in October 2020, which confirmed the accuracy of the data submitted in the Stage I Pre-Application Analysis. The report is included as Attachment 2.H.1. 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; 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 right-of-way.

Archaeological Resources

A total of 18 previously recorded archaeological sites are located within or directly adjacent to the existing right-of-way. Of these, two have been determined not eligible for listing in the NRHP. The remaining resources have not been evaluated. The table below provides the archaeological resource within the Virginia Rebuild Project right-of-way.

Table 3. Archaeological resources within the Virginia Rebuild Project Right-of-Way

Resource ID#	Resource Name	National Register Status*
44GV0095	Archaeological Site	Not Evaluated
44GV0104	Archaeological Site	Not Evaluated
44GV0106	Archaeological Site	Not Evaluated
44GV0107	Archaeological Site	Not Evaluated
44GV0108	Archaeological Site	Not Evaluated
44GV0128	Archaeological Site	Not Evaluated
44GV0153	Archaeological Site	Not Evaluated
44GV0154	Archaeological Site	Not Evaluated
44GV0159	Archaeological Site	Not Evaluated
44GV0161	Archaeological Site	Not Evaluated
44GV0162	Archaeological Site	Not Evaluated
44GV0163	Archaeological Site	Not Evaluated
44GV0262	Archaeological Site	Not Evaluated
44GV0263	Archaeological Site	Not Evaluated
44GV0264	Archaeological Site	Not Evaluated

Resource ID#	Resource Name	National Register Status*
44GV0265	Archaeological Site	Not Evaluated
44GV0423	Archaeological Site	Not Eligible
44GV0454	Archaeological Site	Not Eligible

* No archaeological field work was conducted as part of this effort, and previously recorded sites within or adjacent to the project were not assessed at this time. No impacts to any archaeological resources are anticipated at this time. Resources will be assessed for existing conditions and to confirm avoidance of impacts as project planning progresses.

Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile buffer. There are no NRHP listed resources, landscapes, or battlefields within the 1.0-mile of the project area. One property that has been determined eligible for listing on the NRHP is within 1.0-mile of the project area, and one property that has been determined eligible for listing on the NRHP is within 0.5-mile of the project area. A summary of the previously identified architectural resources are provided in Table 4 below.

Table 4. Previously recorded architectural resources within or adjacent to the Virginia Rebuild Project right-of-way

Resource ID#	Resource Name	NRHP Status	Distance to Centerline (Miles)
040-0010	Chambliss House (Historic), Woodview (Historic/Current)	NRHP Eligible	0.1
040-0047	Brink Polling House (Current), Voting House, Brink Road (Function/Location)	NRHP Eligible	1.0

I. Chesapeake Bay Preservation Areas

Construction, installation, operation, and maintenance of electric transmission lines are conditionally exempt from the Chesapeake Bay Preservation Act as stated in the exemption for public utilities, railroads, public roads, and facilities in 9 VAC 25-830-150. The proposed Virginia Rebuild Project is located outside of Chesapeake Bay Preservation Act jurisdictional counties.

J. Wildlife Resources

Agency databases were reviewed, and agency consultations were initiated with the USFWS, DWR, and DCR to determine if the proposed Virginia Rebuild 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 confirmed and 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. The proposed Virginia Rebuild

Project is a rebuild of a transmission line within existing right-of-way and minimal clearing needed to support construction activities. As such, no loss of wildlife habitat is anticipated.

K. Recreation, Agricultural and Forest Resources

The Virginia Rebuild Project is expected to have minimal incremental impacts on recreational, agricultural, and forest resources as no additional right-of-way is required. The general character of the Virginia Rebuild Project area is characterized as predominantly agricultural and forested lands as well as woody wetlands and low intensity developed land. The Virginia Scenic Rivers Act seeks to identify, designate, and protect rivers and streams that possess outstanding scenic, recreational, historic, and natural characteristics of statewide significance for future generations. There is one designated Potential Scenic River, the Meherrin River, within the vicinity of the Virginia Rebuild Project.

There are no state or local parks located within the existing right-of-way between the Clubhouse Substation and the Virginia state line. Additionally, there are no parks located within a mile of the right-of-way.

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 “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. 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 94.0 acres of prime farmland and 42.7 acres of farmland of statewide importance are located within the Virginia Rebuild Project right-of-way. The project area is generally zoned A-1 Agricultural. According to the county Comprehensive Plan, the majority of the existing transmission line corridor is located within areas designated for rural residential and low density residential future land use.

Where agricultural uses are present, these activities have been occurring within the right-of-way while the existing transmission line has been in operation since 1962. The Virginia Rebuild Project may result in temporary impacts to farmland during construction but would otherwise not be expected to impact farmlands and would not alter the agricultural use.

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. According to the DCR's Natural Heritage Data Explorer, no conservation easements were found within 1 mile of the project.

The width of the existing transmission line right-of-way is approximately 150 feet. The proposed Virginia Rebuild Project is the rebuild of an existing transmission line, and no additional right-of-way is required. The Virginia Rebuild Project proposes to retain the existing right-of-way as currently utilized but may require additional trimming of tree limbs along the right-of-way edges and/or trimming for access roads along the corridor 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 Virginia Rebuild Project is expected to have minimal, if any, impact on forest resources as the proposed Virginia Rebuild Project involves rebuilding an existing line which is already cleared and maintained for existing facility operation and no additional right-of-way is required.

In October 2020, the Company solicited DCR and VOF for comments on the proposed Virginia Rebuild Project. The VOF responded via email dated October 8, 2020 that there are no existing or proposed VOF open-space easements in the immediate vicinity of the project. See attachment 2.K.1.

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. 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 Virginia Rebuild Project is located in the Piedmont physiographic province of Virginia and consists primarily of gravel and sand, granite and granodiorite, and metavolcanic rock. According to the USGS topographic maps and the Division of Mines, Minerals and Energy (“DMME”) online mapping, there are no active mines or stone quarries within the limits of the Virginia Rebuild Project. The Virginia Rebuild Project right-of-way does transect a sand or gravel quarry site located south of Route 611 (Dry Bread Road), west of Route 627 (Brink Road) and north of Route 639 (Rock Bridge Road). The site is not listed by the DMME. The DMME mapping does identify the Brink Mine approximately 1.0 mile west of the Virginia Rebuild Project and Skippers Quarry 2.0 miles east of the Virginia Rebuild Project. The Brink Mine is listed as “Closed/Closing”, and the Skippers Quarry is an active site. The Company does not anticipate that the rebuild of the existing transmission line will result in negative impacts on the geology or mineral resources in the proposed Virginia Rebuild Project area.

N. Transportation Infrastructure

The width of the existing transmission line right-of-way is approximately 150 feet and is currently maintained for operation of the existing transmission facilities. The Virginia portion of the transmission line corridor extends approximately 1.6 miles from the Clubhouse Substation to the Dry Bread Substation and continues for approximately 10.9 miles from the Dry Bread Substation to Structure #254/113 at the Virginia state line. The project includes seven road crossings all within Greensville County. The road crossings within the Virginia Rebuild Project area consist of low traffic volume county roads.

The Company will submit applications for land use permits and traffic control plans to the Virginia Department of Transportation (“VDOT”) for the aerial crossings of VDOT maintained roads and construction entrances from the VDOT right-of-way as needed. These permits will be obtained prior to construction. The Company solicited VDOT for comments in October 2020.

The existing Virginia Rebuild Project right-of-way does not cross any railroad tracks.

The Company has reviewed the Federal Aviation Administration’s (“FAA’s”) website (<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>) to identify airports within 10.0 miles of the Virginia Rebuild Project. Based on this review, one FAA-restricted

airport was identified; Emporia-Greenville Regional Airport, approximately 5.5 miles east of the Clubhouse Substation. The Company solicited comments from the Virginia Department of Aviation (“DOAv”) and the FAA regarding the Virginia Rebuild Project in October 2020. The DOAv responded via email dated October 15, 2020 that there are no public use airports within 20,000 linear feet of the project. Unless support structures or temporary cranes will reach a height of 200 feet above ground level, no airspace case would be required by the Federal Aviation Administration (the “FAA”). See Attachment 2.N.1.

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

Attachments

October 5, 2020

BY EMAIL

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

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Andersen,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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

Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

October 5, 2020

BY EMAIL

Ms. Amy Ewing
Virginia Department of Wildlife Resources
PO Box 90778
Henrico, Virginia 23228

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Ms. Ewing,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

October 5, 2020

BY EMAIL

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

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Ms. Ruhr,

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Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

October 5, 2020

BY EMAIL

Ms. Bettina Rayfield
Manager Environmental Impact Review and Long Range Priorities Program
Office of Environmental Impact Review
Department of Environmental Quality
PO Box 1105
Richmond, Virginia 23218

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Ms. Rayfield,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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

Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

October 5, 2020

BY EMAIL

Mr. Terry Lasher
Assistant State Forester
Virginia Department of Forestry
900 Natural Resources Drive
Charlottesville, Virginia 22903

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Lasher,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

October 5, 2020

BY EMAIL

Mr. Peter Kube
US Army Corps of Engineers
Norfolk District, Eastern Section
803 Front Street
Norfolk, Virginia 23510

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Kube,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

October 5, 2020

BY EMAIL

Ms. Rene Hypes
Environmental Review Coordinator, Division of Natural Heritage
Department of Conservation and Recreation
600 East Main Street, Suite 1400
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Ms. Hypes,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map



October 5, 2020

BY EMAIL

Ms. Michelle Henicheck
Office of Wetlands and Streams
Department of Environmental Quality
PO Box 1105
Richmond, Virginia 23218

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Ms. Henicheck,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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C2 Environmental delineated wetlands and other waters of the United States using the Routine Determination Method as outlined in the 1987 Corps of Engineers Wetland Delineation Manual and methods described in the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). The limits of these features are illustrated on the attached Delineation Map and a breakdown of features is provided below in Table 1. The limits of wetlands of other waters of the United States will be submitted to the U.S. Army Corps of Engineers for confirmation.

Clubhouse to Lakeview
10/5/2020
Page 2 of 2

Table 1. Jurisdictional Features Identified within the ROW

PFO (Acres)	PSS (Acres)	PEM (Acres)	Open Waters (Acres)	Stream Channels (R2) Acres (LF)	Stream Channels (R3) Acres (LF)	Stream Channels (R4) Acres (LF)	Jurisdictional Ditch Acres (LF)
6.3	1.8	39.0	0.5	1.0 (243)	0.6 (3,071)	0.3 (1,919)	0.003 (21)

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

Regards,



Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

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



October 5, 2020

BY EMAIL

Mr. Jaime Robb
Department of Environmental Quality
VWP Permit Manager, Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Robb,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,

A handwritten signature in blue ink, appearing to read "JPE", written over a light blue horizontal line.

Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map



October 5, 2020

BY EMAIL

Mr. Keith Tignor
Endangered Plant and Insect Species Program
Virginia Department of Agriculture and Consumer Affairs
102 Governor Street
Richmond, Virginia 23219

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Tignor,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,

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Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map



October 5, 2020

BY EMAIL

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

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Watkinson,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,

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Jason P. Ericson
Director, Environmental Services

Attachment: Project Overview Map

August 27, 2020

Mr. Robert Alexander
Obstruction Evaluation Specialist
Federal Aviation Administration
FAA Eastern Regional Office
159-30 Rockaway Blvd
Jamaica, New York 11434

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Alexander,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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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 me directly at (434)532-7579 or Nancy.R.Reid@Dominionenergy.com. We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Regards,



Nancy R. Reid
Siting and Permitting Specialist

Attachment: Project Overview Map

August 27, 2020

BY EMAIL

Mr. Scott Denny
Airport Services Division
Virginia Department of Aviation
5702 Gulfstream Road
Richmond, Virginia 23250
scott.denny@doav.virginia.gov

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Denny,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Nancy R. Reid
Siting and Permitting Specialist

Attachment: Project Overview Map

August 27, 2020

Mr. Christopher G. Hall, P.E.
District Engineer
Virginia Department of Transportation
Hampton Roads District Office
7511 Burbage Drive
Suffolk, Virginia 23435

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Hall,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Nancy R. Reid
Siting and Permitting Specialist

Attachment: Project Overview Map

August 27, 2020

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

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Mr. Kirchen,

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Regards,



Nancy R. Reid
Siting and Permitting Specialist

Attachment: Project Overview Map

August 27, 2020

BY EMAIL

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

**RE: Dominion Energy Virginia's Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, Virginia**

Dear Ms. Little,

Dominion Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

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Regards,



Nancy R. Reid
Siting and Permitting Specialist

Attachment: 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

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

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

October 14, 2020

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

RE: Proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project; Greensville County, 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 (25 MB maximum) or make the documents available for download at a website, file transfer protocol (ftp) site or the VITA LFT file share system (Requires an "invitation" for access. An invitation request should be sent to eir@deq.virginia.gov). The required "Wetlands Impact Consultation" can be sent directly to Michelle Henicheck at michelle.henicheck@deq.virginia.gov or at the address above.

ENVIRONMENTAL REVIEW UNDER VIRGINIA CODE 56-46.1

While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the preparation of the environmental impact analysis document. Accordingly, 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

- 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

- 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

- 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

- EPA RCRAInfo Search

Information on hazardous waste facilities:

- www.epa.gov/enviro/facts/rcrainfo/search.html

- Total Maximum Daily Loads Approved Reports

- <https://www.deq.virginia.gov/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

- 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).

I hope this information is helpful to you.

Sincerely,

A handwritten signature in black ink, appearing to read "Bettina Rayfield". The signature is written in a cursive, flowing style.

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



COMMONWEALTH of VIRGINIA

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

Matthew J. Strickler
Secretary of Natural Resources

Steven G. Bowman
Commissioner

October 9, 2020

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

Re: Clubhouse to Lakeview 230kV Rebuild Project,
Greensville County, Virginia

Dear Ms. Studebaker

This will respond to the request for comments regarding the Clubhouse to Lakeview 230kV Rebuild Project, prepared by Dominion Energy Services. Specifically, Dominion Energy Services has proposed to rebuild approximately 12.5 miles of existing overhead transmission lines in Greensville County, Virginia.

We reviewed the provided documents and found that the proposed project may be within the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and may require a permit from this agency.

Please be advised that the VMRC, pursuant to §28.2-1200 et seq of the Code of Virginia, has jurisdiction over any encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water along non-tidal, natural rivers and streams with a drainage area greater than 5-square miles, a permit may be required from our agency. Any jurisdictional impacts will be reviewed by the VMRC during the Joint Permit Application process and any permit issued by the VMRC will specify necessary special conditions for the project. Should the proposed project change, a new review by this agency may be required relative to these jurisdictional areas.

If you have any questions please contact me at (757) 247-8063 or by email at justin.worrell@mrc.virginia.gov. Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in blue ink that reads "Justin Worrell".

Justin Worrell

An Agency of the Natural Resources Secretariat
www.mrc.virginia.gov

Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

Dominion Energy Services
October 9, 2020
Page Two

Environmental Engineer, Habitat Management

JDW/tlb
HM



October 21, 2020

Regulator of the Day
U.S. Army Corps of Engineers
803 Front Street
Norfolk, VA 23510
Via email: cenao-reg_rod@usace.army.mil

Subject: Request for Preliminary Jurisdictional Determination

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Start: Latitude: 36.718542 Longitude: -77.585233
End: Latitude: 36.545257 Longitude: -77.646638
Greensville County, VA
C2 Environmental Project No. 0115

Dear Sir or Madam:

C2 Environmental (C2 Env) has been retained by Virginia Electric and Power Company, doing business as Dominion Energy Virginia to conduct a field investigation of wetlands and waters of the U.S. (WOUS) on the project known as TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild. Dominion Energy Virginia is conducting an evaluation of the Virginia portion of the study area for an existing transmission line right of way (ROW) rebuild. The approximate 378.5 acre (12.5 mile) study area is located within the Meherrin River, Fountains Creek, Cattail Creek, Massie Branch, and Collier Branch drainage basins in Greensville County, Virginia (Appendix A, Sheet 1). The Virginia portion of the study area starts at the Clubhouse Substation located northeast of Brunswick Road (Route 607), southwest of Pleasant Shade Drive (Route 58), and generally runs to the southwest and ends at the Virginia / North Carolina border located west of Caret Path (Route 631). The required materials from the field investigation are enclosed.

On behalf of Dominion Energy Virginia, C2 Env is submitting this information to the Corps for their review and approval for issuance of a Preliminary Jurisdictional Determination. C2 Env staff would be pleased to meet with the Corps onsite to review the provided information if necessary. Please contact Scott Kupiec for any requests related to this matter. Thank you for your attention to this request.

Regards,

A handwritten signature in black ink, appearing to read 'SKUPIEC'.

Scott Kupiec, PWD
Senior Environmental Scientist
Email: skupiec@c2environmental.com

Appendix A: Project Graphics
Appendix B: Corps Data Sheets
Appendix C: Jurisdictional Determination Request Form and Site Information Summary Sheet
Appendix D: Existing Condition Photographs

CC: Ms. Rachel Studebaker - Dominion Energy Virginia

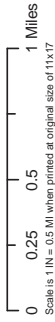
APPENDIX A

Project Graphics

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse – Lakeview 230 kV Rebuild
Greensville, Virginia

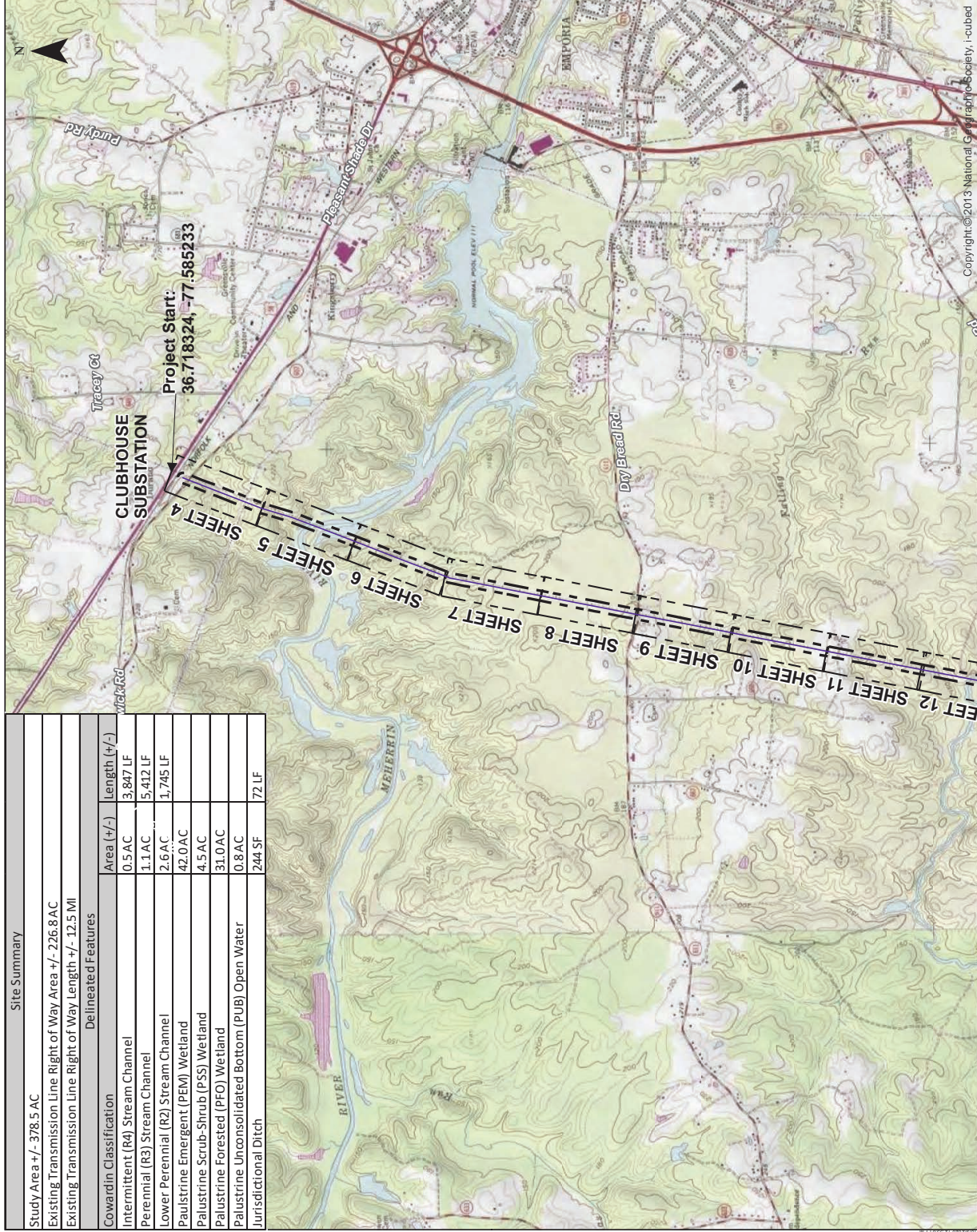
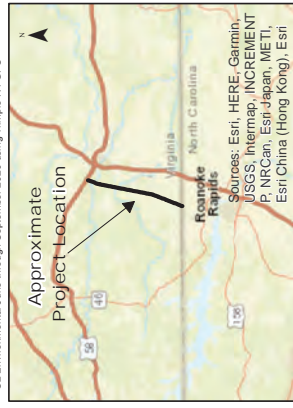
Client:	Dominion Energy Virginia
C2 Env Project:	GCF
Date:	10/21/20



SITE DATA

- Study Area Limits
- Map Sheet

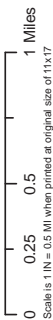
- Notes:
1. Basemap from ESRI World Imagery 2018 and ESRI USA Topo Map 2013
 2. Structure locations and right-of-way dimensions provided by Dominion Energy
 3. Wetland data provided by USFWS
 4. NAD 83 provided by USFWS
 5. Soil Series provided by NRCS Web Soil Survey
 6. Roads provided by VGIN 2020
 7. Insurance Rate Map provided by Insurance Rate Map, effective 7/7/09
 8. Wetlands and other Waters of the U.S. were field delineated by C2 Environmental June through September 2020 using Trimble R1 GPS



WETLAND DELINEATION MAP

TL 254/2201 Clubhouse – Lakeview 230 kV Rebuild
Greensville, Virginia

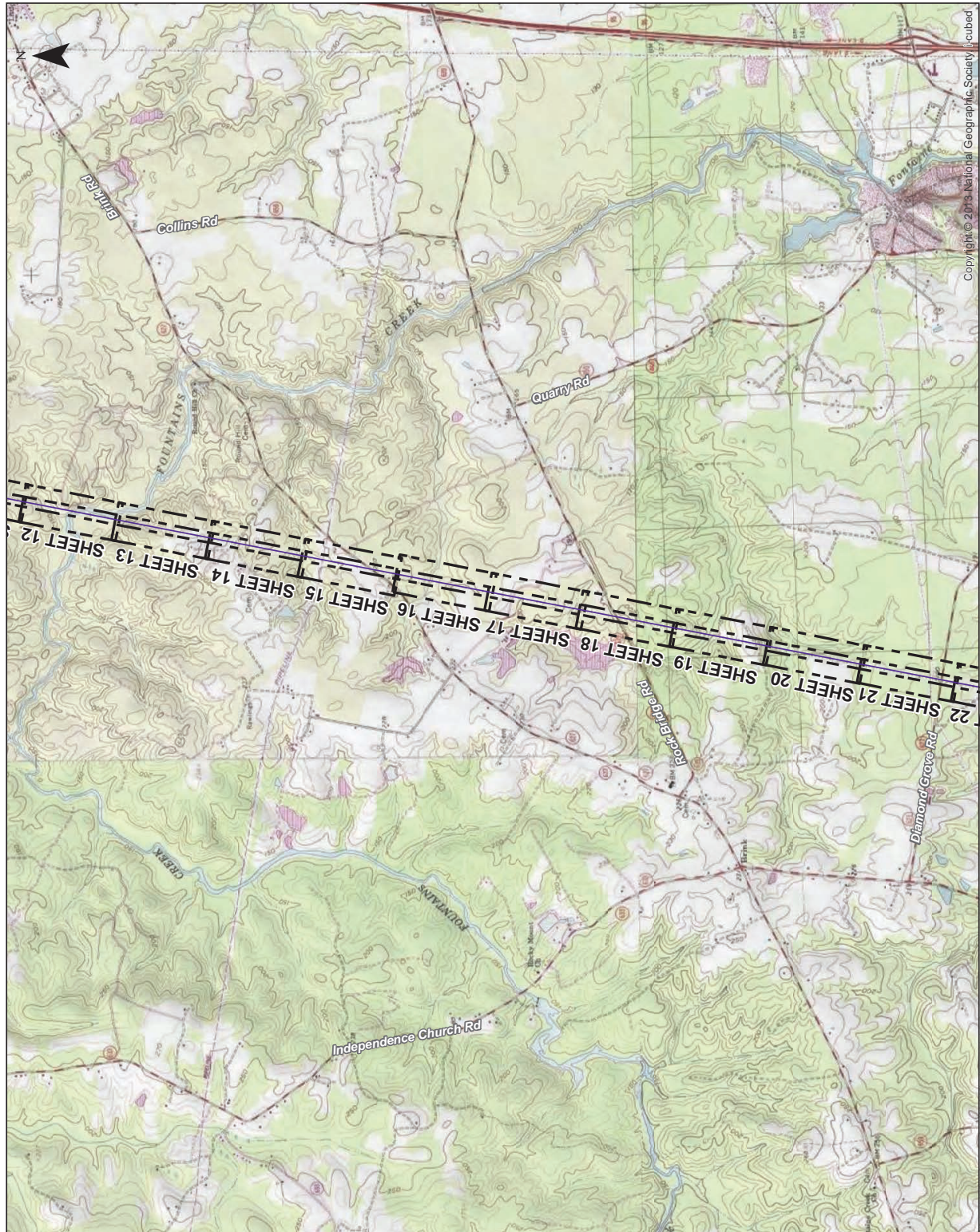
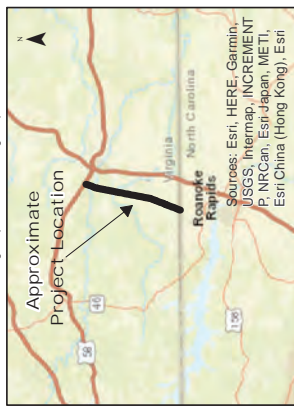
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C2 Env Project:	0115
Prepared By:	GCF
Date:	10/21/20



SITE DATA

- Study Area Limits
- Map Sheet

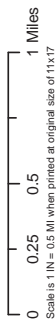
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 3. Wetland data provided by USFWS
 4. NWI provided by USFWS
 5. Soil Series provided by NRCS Web Soil Survey
 6. Roads provided by VGIN 2020
 7. Insurance Rate Map provided by 51081C0300C, 51081C0275C, 51081C0175C, and 51081C0154C, effective 7/7/09
 8. Wetlands and other Waters of the U.S. were field delineated by C2 Environmental June through September 2020 using Trimble R1 GPS



WETLAND DELINEATION MAP

TL 254/2201 Clubhouse – Lakeview 230 kV Rebuild
Greensville, Virginia

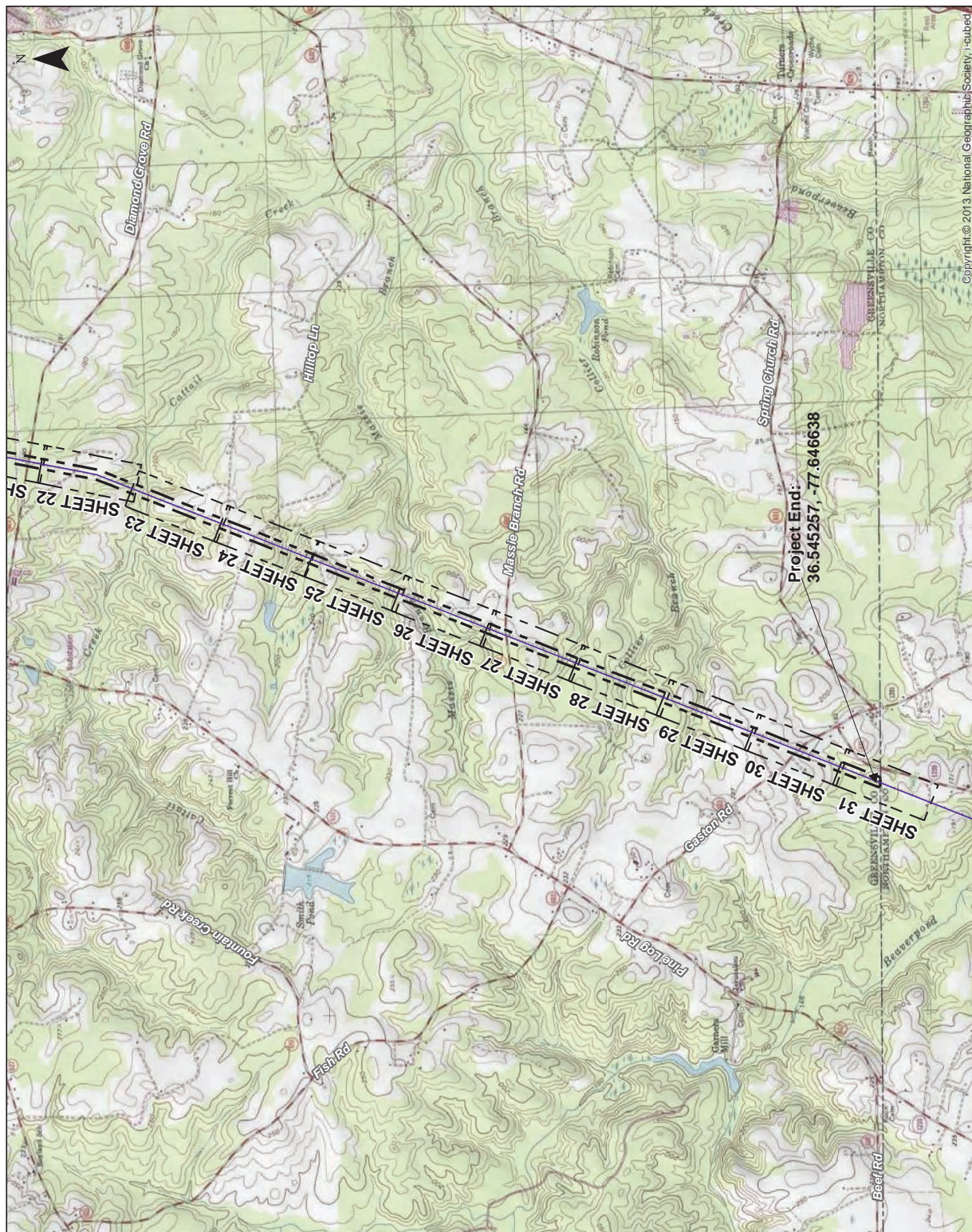
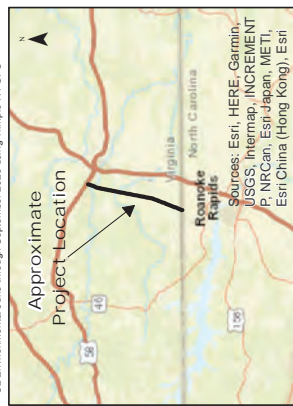
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C2 Env Project:	0115
Prepared By:	GCF
Date:	10/21/20



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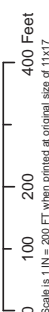
- Study Area Limits
- Map Sheet

- Notes:
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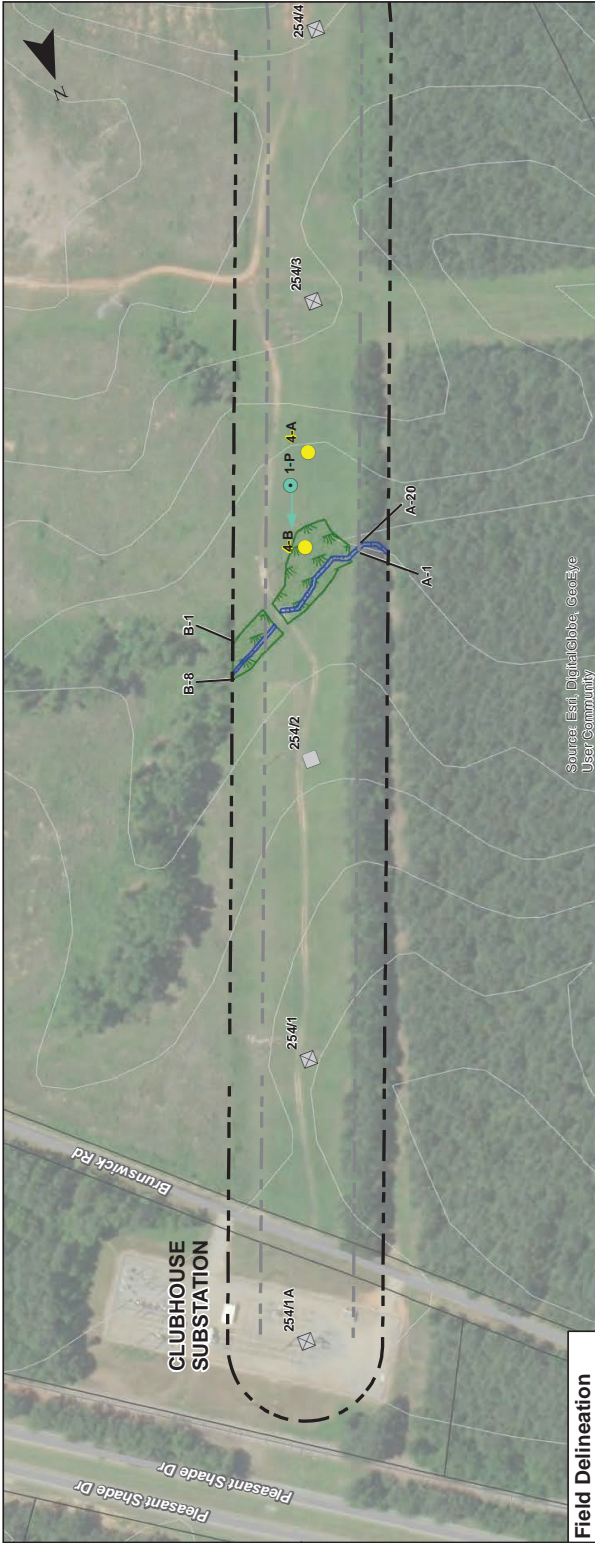
WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia
Owner/Developer:
Dominion Energy Virginia
C2 Env Project: Prepared By: Date:
0115 AUB 10/21/20



SITE DATA

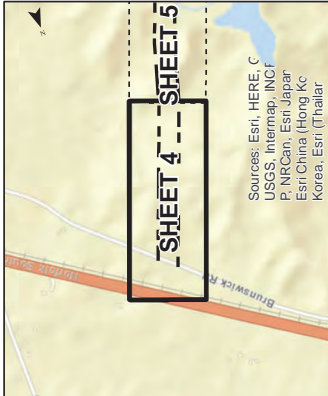
- Existing Transmission Line Right of Way
- Study Area Limits
- Existing Structure
- B-1 Wetland Flag Series
- Data Point Location
- Photo Location
- Approximate R2 Stream Channel Limits
- Approximate R3 Stream Channel Limits
- Approximate R4 Stream Channel Limits
- Approximate PFO Wetland Limits
- Approximate PSS Wetland Limits
- Approximate PEM Wetland Limits
- Approximate PUB Open Water Limits
- Approximate Jurisdictional Ditch Limits
- NWI Wetlands
- NRCS Soil Series
- FEMA 100-Year Floodplain
- Parcel Boundary
- Existing 10 FT Contour



Field Delineation



Desktop Resources

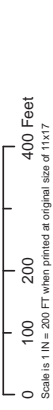


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AJB
Date: 10/21/20



SITE DATA

Existing Transmission Line Right of Way

Study Area Limits

Existing Structure

B-1 Wetland Flag Series

Data Point Location

Photo Location

Approximate R2 Stream Channel Limits

Approximate R3 Stream Channel Limits

Approximate R4 Stream Channel Limits

Approximate PFO Wetland Limits

Approximate PSS Wetland Limits

Approximate PEM Wetland Limits

Approximate PUB Open Water Limits

Approximate Jurisdictional Ditch Limits

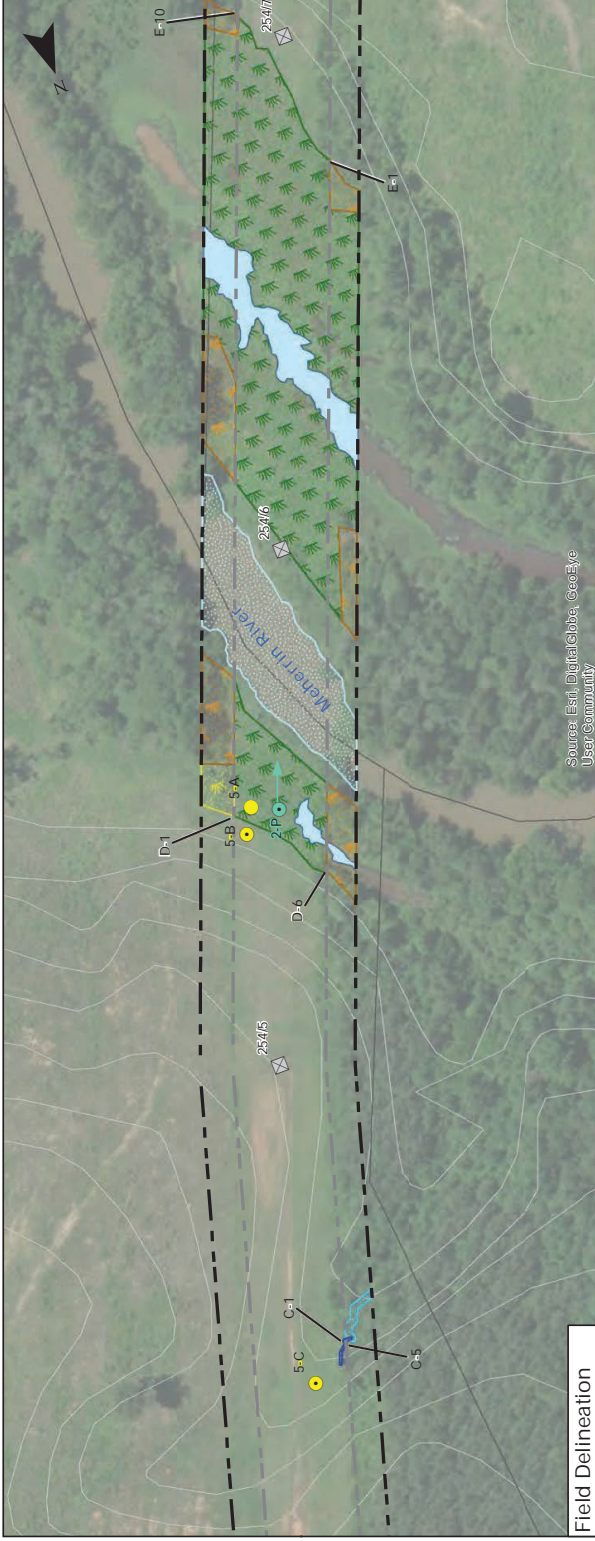
NWI Wetlands

NRCS Soil Series

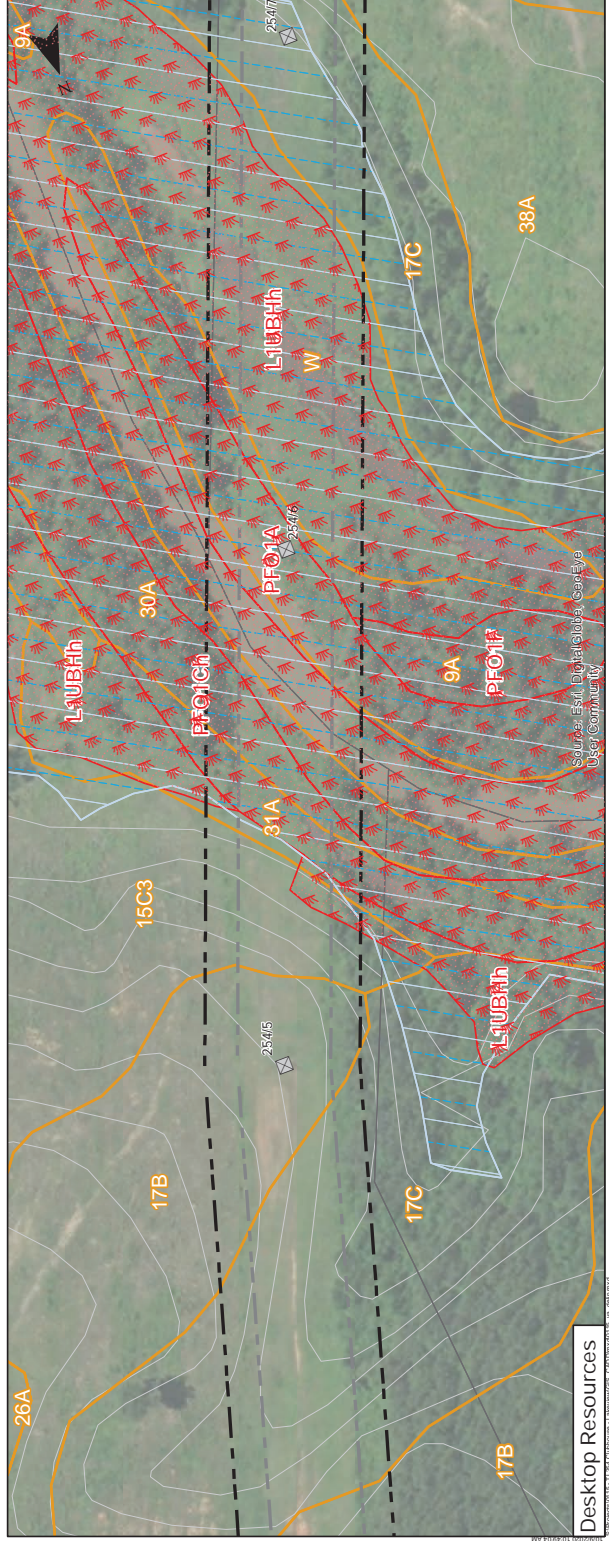
FEMA 100-Year Floodplain

Parcel Boundary

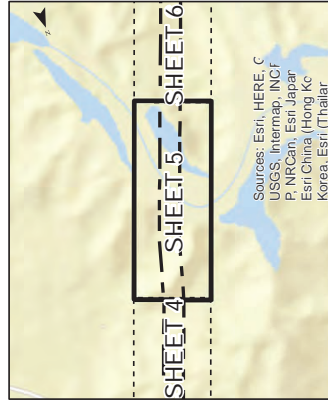
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Field Delineation



Desktop Resources



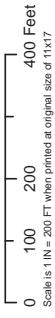
SHEET 5 OF 32

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

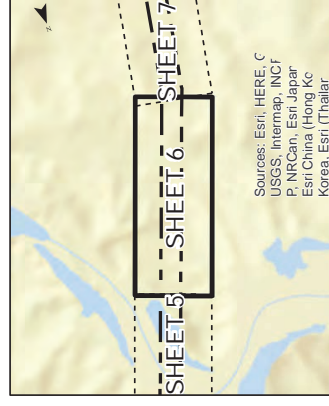
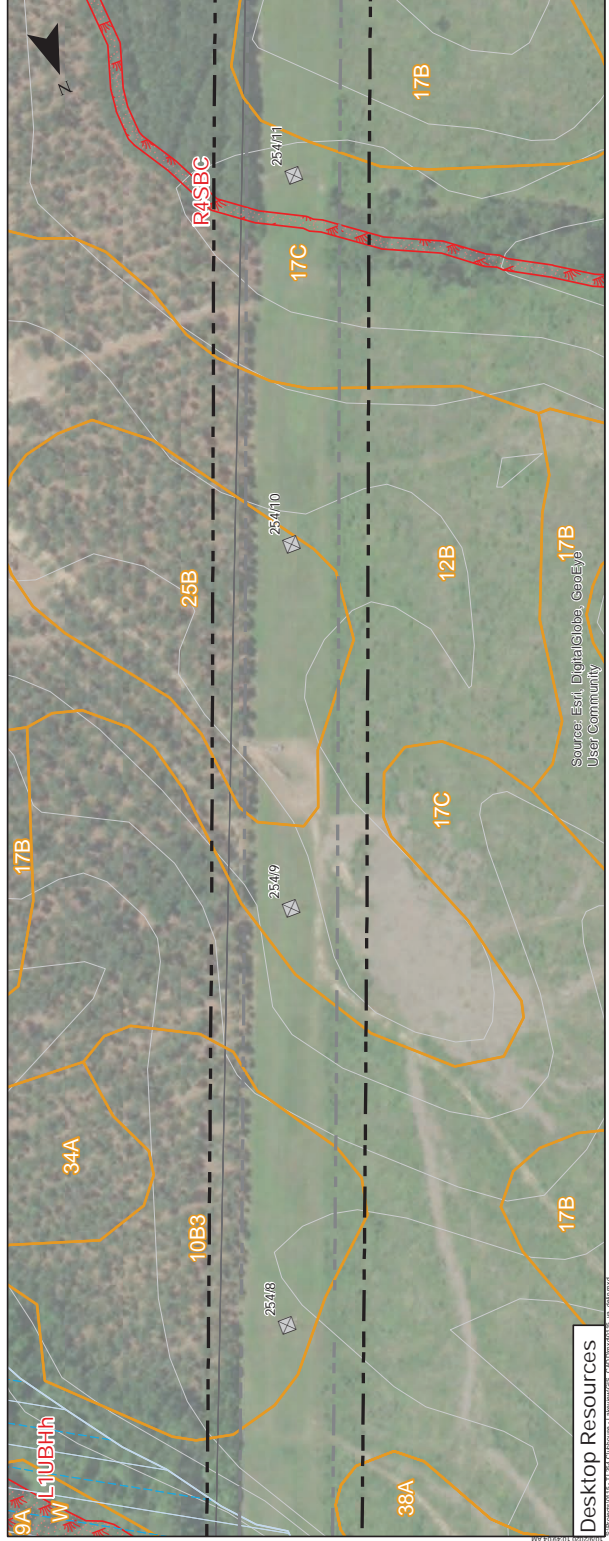
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AJB
Date: 10/21/20



SITE DATA

- Existing Transmission Line Right of Way
- Study Area Limits
- Existing Structure
- B-1 Wetland Flag Series
- Data Point Location
- Photo Location
- Approximate R2 Stream Channel Limits
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- NWI Wetlands
- NRCS Soil Series
- FEMA 100-Year Floodplain
- Parcel Boundary
- Existing 10 FT Contour



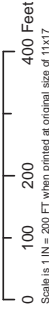
SHEET 6 OF 32

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AUB
Date: 10/21/20

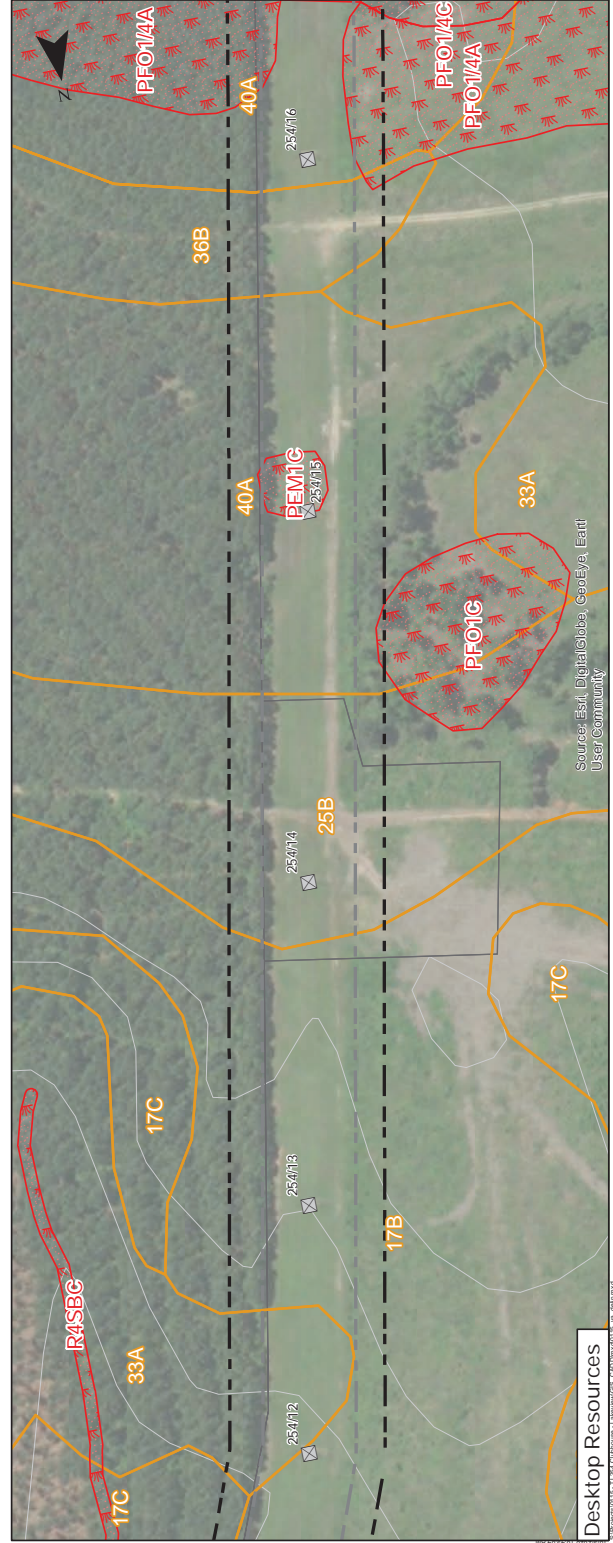


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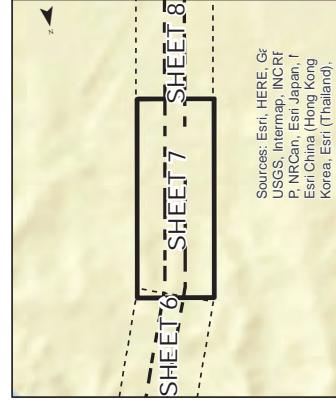
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- Existing 10 FT Contour



Field Delineation



Desktop Resources



WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

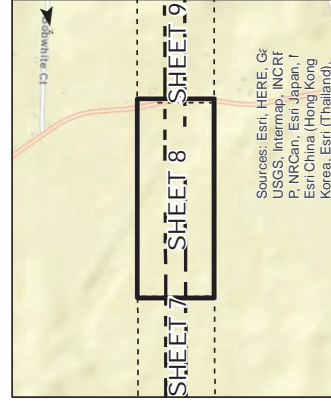
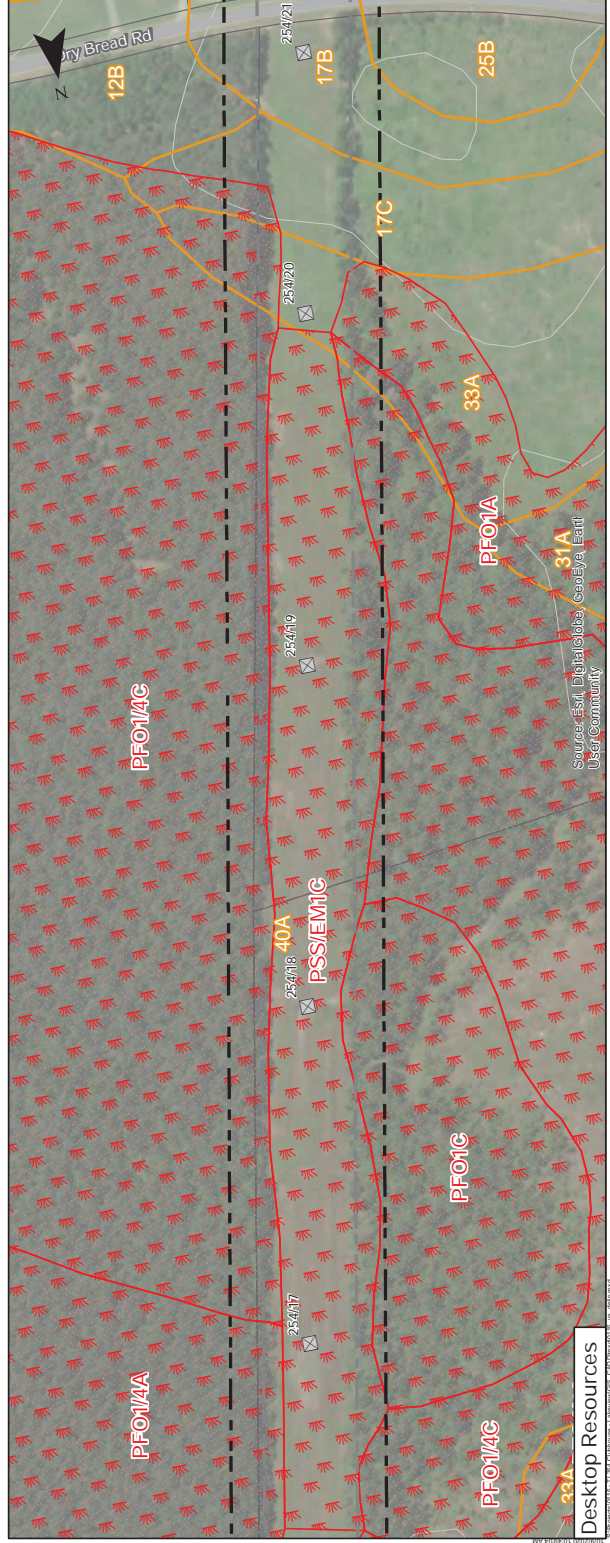
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AUB
Date: 10/21/20

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SITE DATA

- Existing Transmission Line Right of Way
- Study Area Limits
- Existing Structure
- B-1 Wetland Flag Series
- Data Point Location
- Photo Location
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- Parcel Boundary
- Existing 10 FT Contour



SHEET 8 OF 32

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:

Dominion Energy Virginia

C2 Env Project:

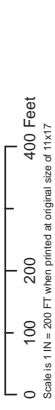
0115

Prepared By:

AJB

Date:

10/21/20



SITE DATA

Existing Transmission Line Right of Way

Study Area Limits

Existing Structure

B-1 Wetland Flag Series

Data Point Location

Photo Location

Approximate R2 Stream Channel Limits

Approximate R3 Stream Channel Limits

Approximate R4 Stream Channel Limits

Approximate PFO Wetland Limits

Approximate PSS Wetland Limits

Approximate PEM Wetland Limits

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Approximate Jurisdictional Ditch Limits

NWI Wetlands

NRCS Soil Series

FEMA 100-Year Floodplain

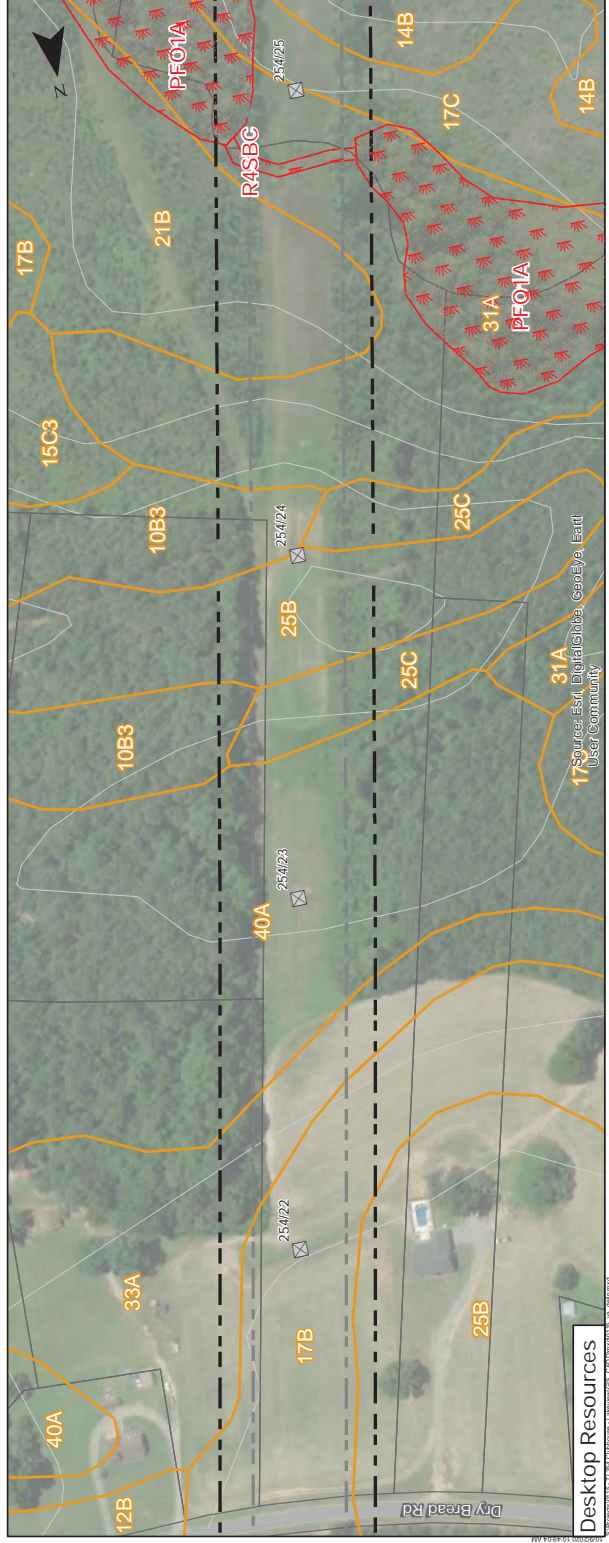
Parcel Boundary

Existing 10 FT Contour



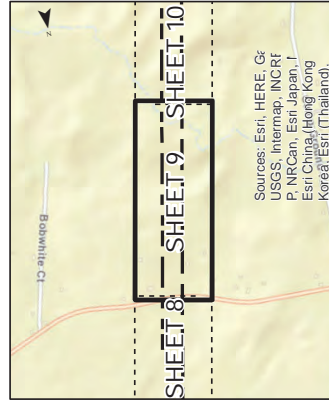
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User Community

Field Delineation



Source: Esri, DigitalGlobe, GeoEye, Earth
User Community

Desktop Resources



Sources: Esri, HERE, Gz
USGS, Intermap, INCRF
P, NRCAN, Esri Japan, I
Esri China (Hong Kong)
Korea, Esri (Thailand),
Switzerland



SHEET 9 OF 32

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:

Dominion Energy Virginia

C2 Env Project:

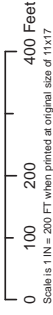
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Prepared By:

AJB

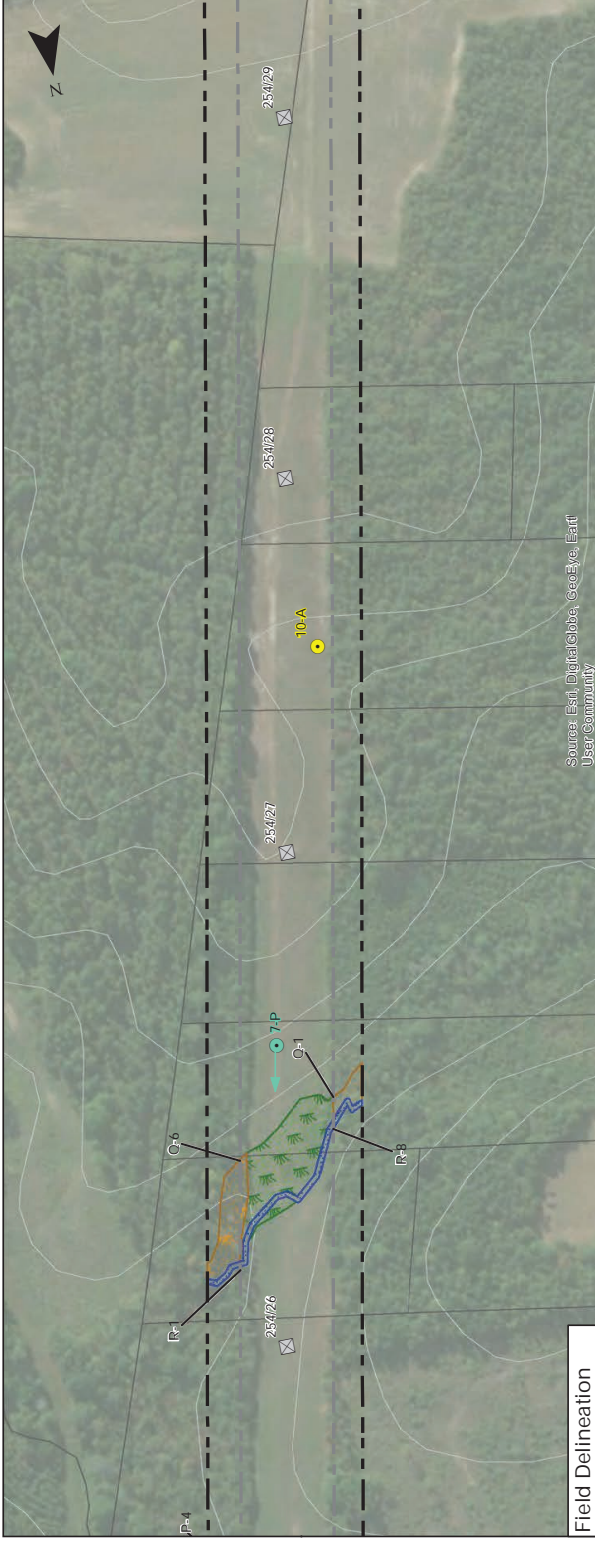
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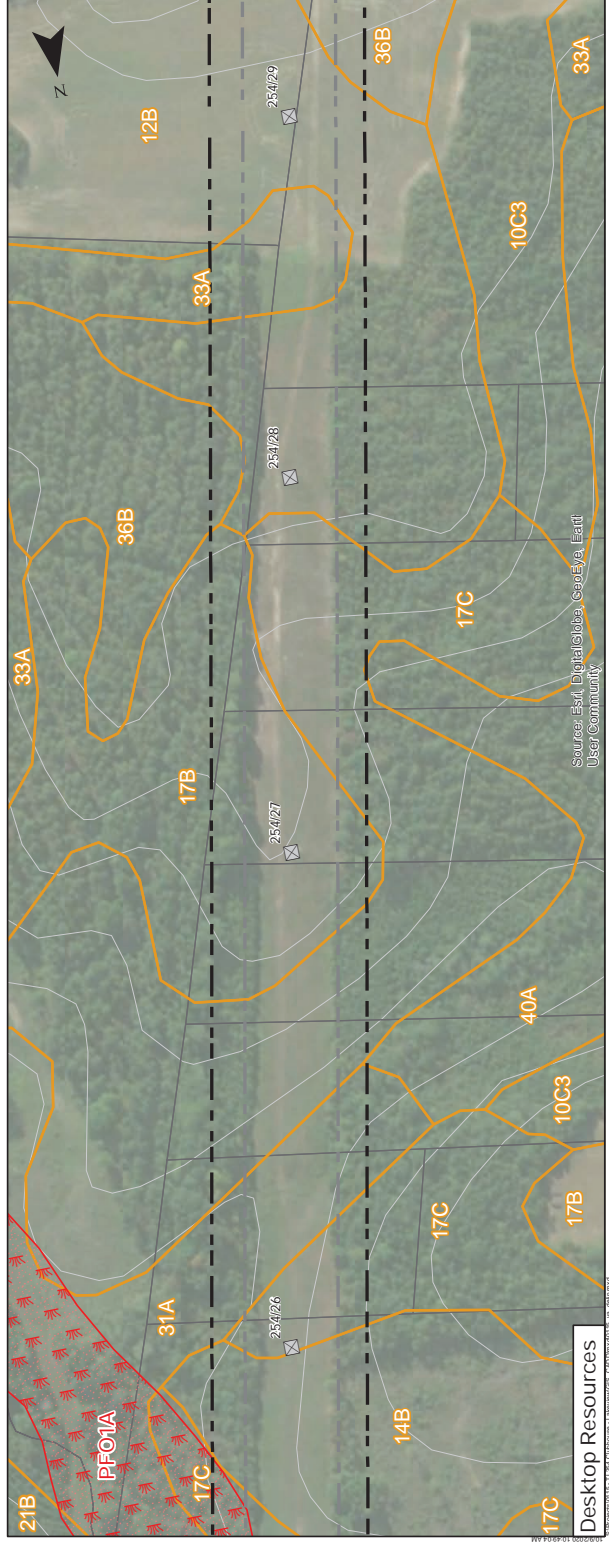


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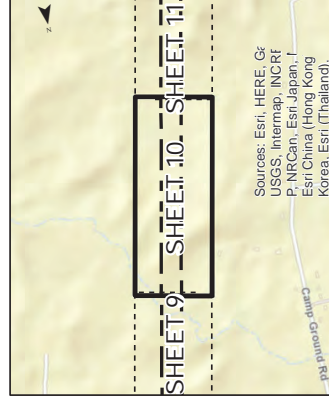
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- Existing 10 FT Contour



Field Delineation



Desktop Resources

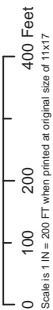


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AJB
Date: 10/21/20



SITE DATA

Existing Transmission Line Right of Way

Study Area Limits

Existing Structure

B-1 Wetland Flag Series

Data Point Location

Photo Location

Approximate R2 Stream Channel Limits

Approximate R3 Stream Channel Limits

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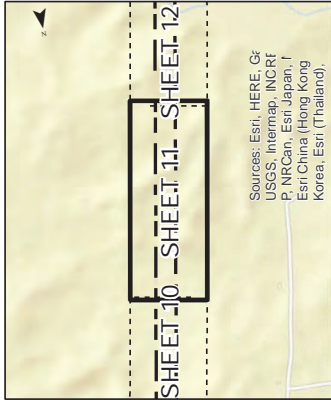
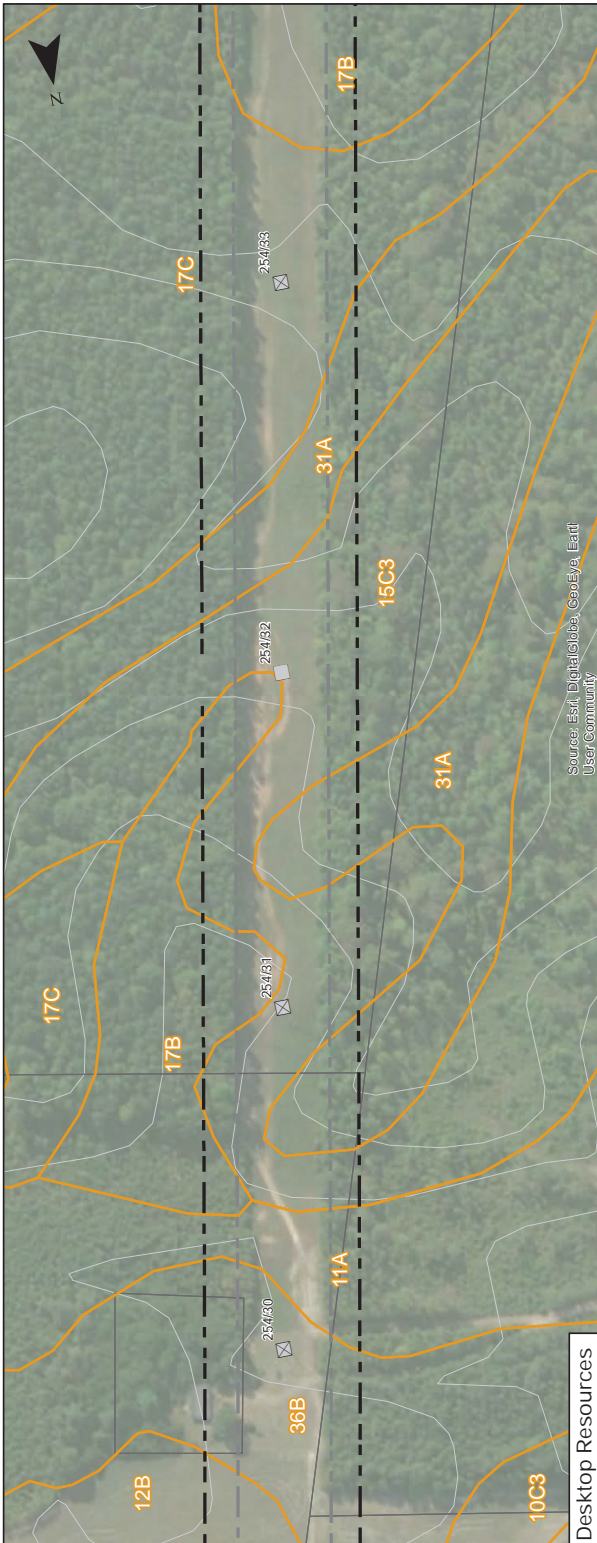
NWI Wetlands

NRCS Soil Series

FEMA 100-Year Floodplain

Parcel Boundary

Existing 10 FT Contour



WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

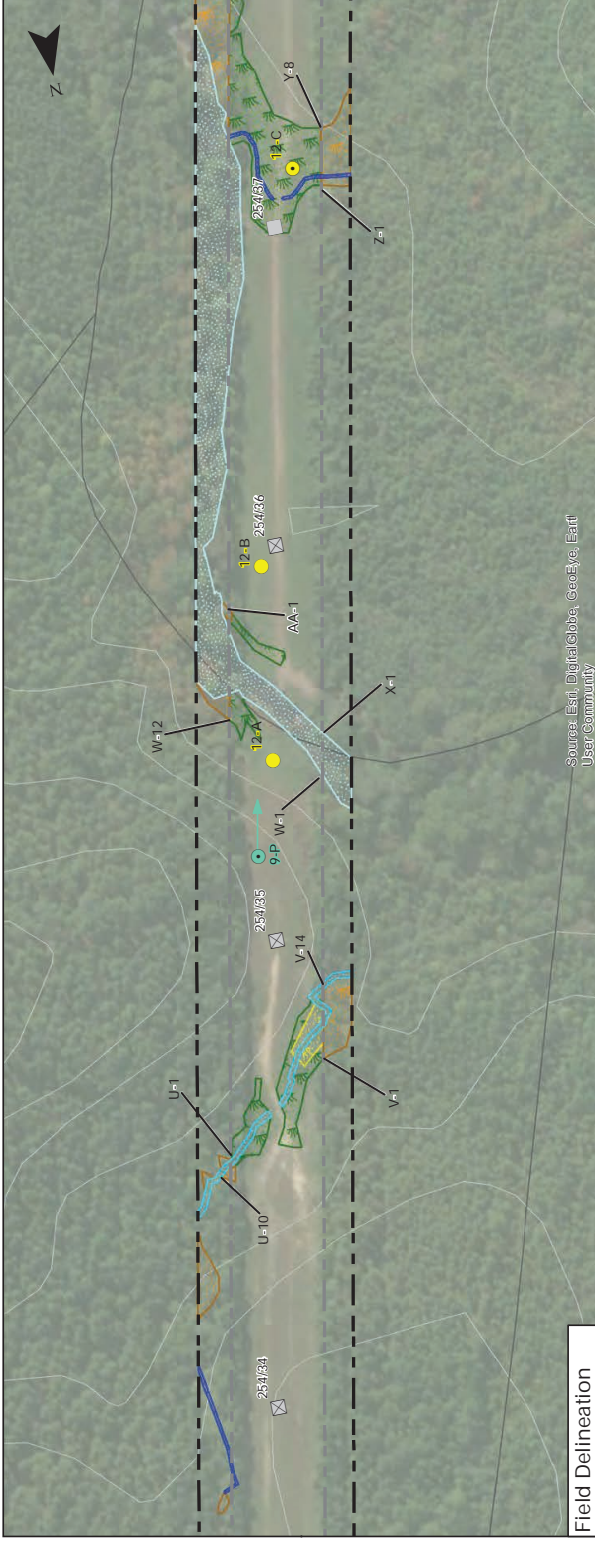
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AUB
Date: 10/21/20

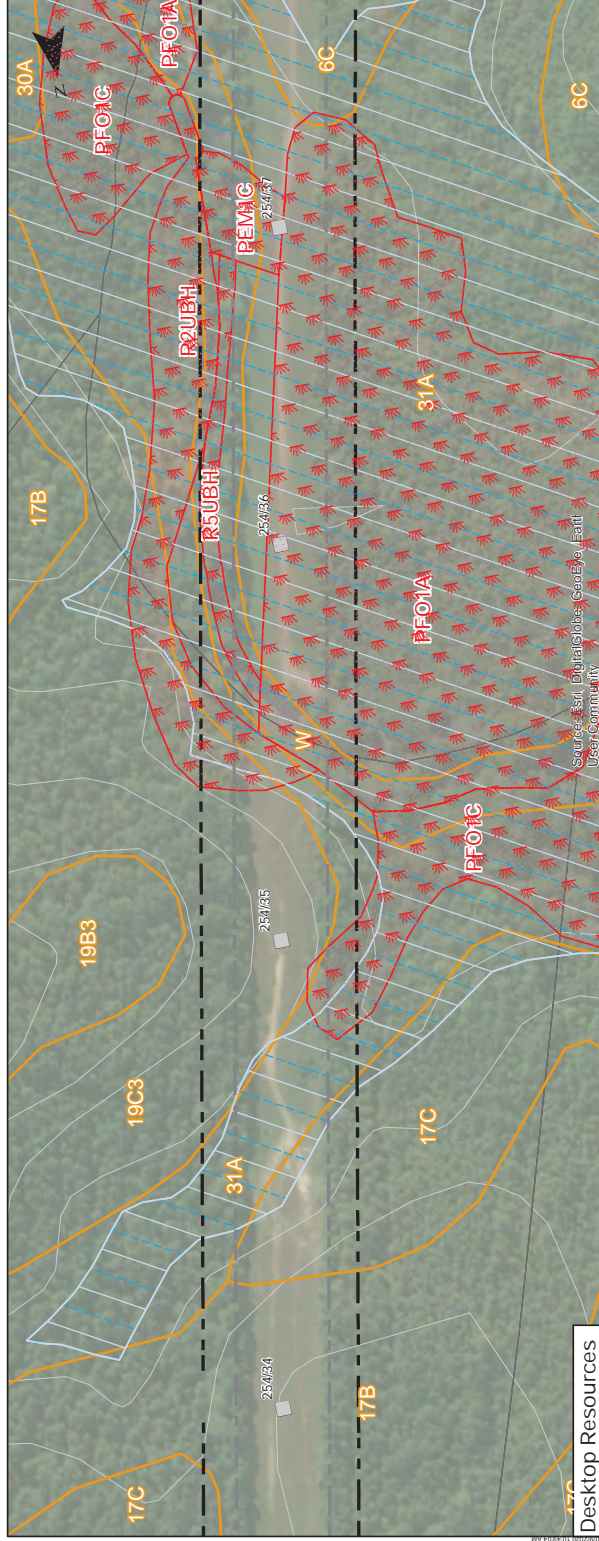
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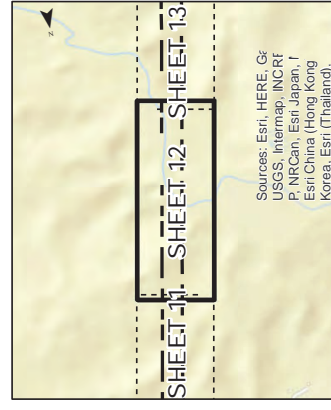
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- FEMA 100-Year Floodplain
- Parcel Boundary
- Existing 10 FT Contour



Field Delineation



Desktop Resources

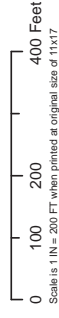


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

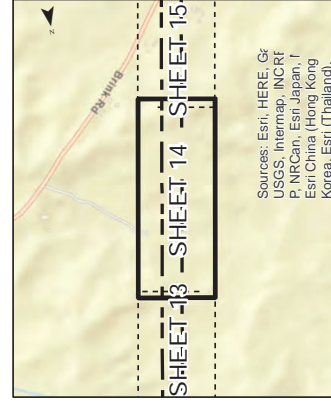
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Dominion Energy Virginia

C2 Env Project:	Prepared By:	Date:
0115	AJB	10/21/20

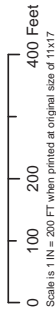


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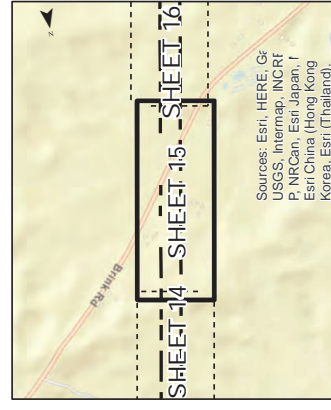
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TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild	
Greensville, Virginia	
Owner/Developer: Dominion Energy Virginia	
C2 Env Project: 0115	Prepared By: AJB
Date: 10/21/20	



Existing Transmission Line Right of Way
Study Area Limits
Existing Structure
B-1 Wetland Flag Series
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NW1 Wetlands
NRCS Soil Series
FEMA 100-Year Floodplain
Parcel Boundary
Existing 10 FT Contour

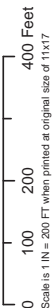


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AUB
Date: 10/21/20



SITE DATA

Existing Transmission Line Right of Way

Study Area Limits

Existing Structure

B-1 Wetland Flag Series

Data Point Location

Photo Location

Approximate R2 Stream Channel Limits

Approximate R3 Stream Channel Limits

Approximate R4 Stream Channel Limits

Approximate PFO Wetland Limits

Approximate PSS Wetland Limits

Approximate PEM Wetland Limits

Approximate PUB Open Water Limits

Approximate Jurisdictional Ditch Limits

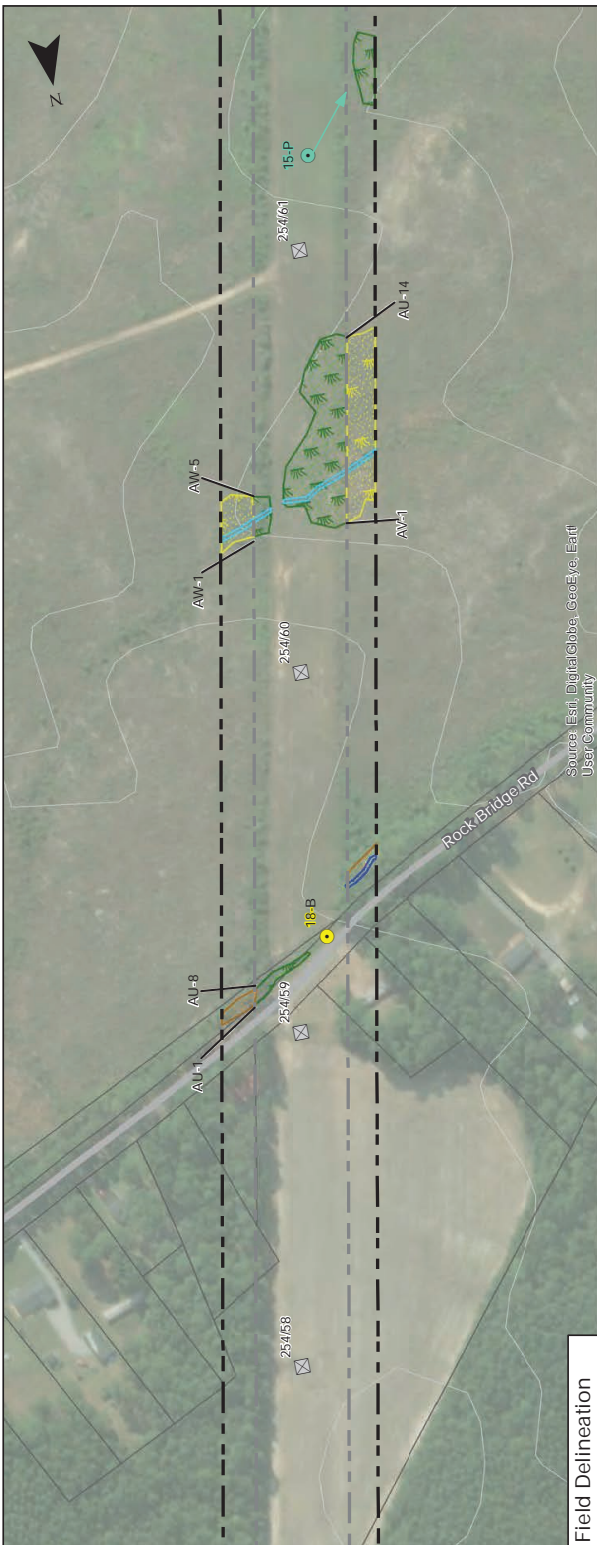
NWI Wetlands

NRCS Soil Series

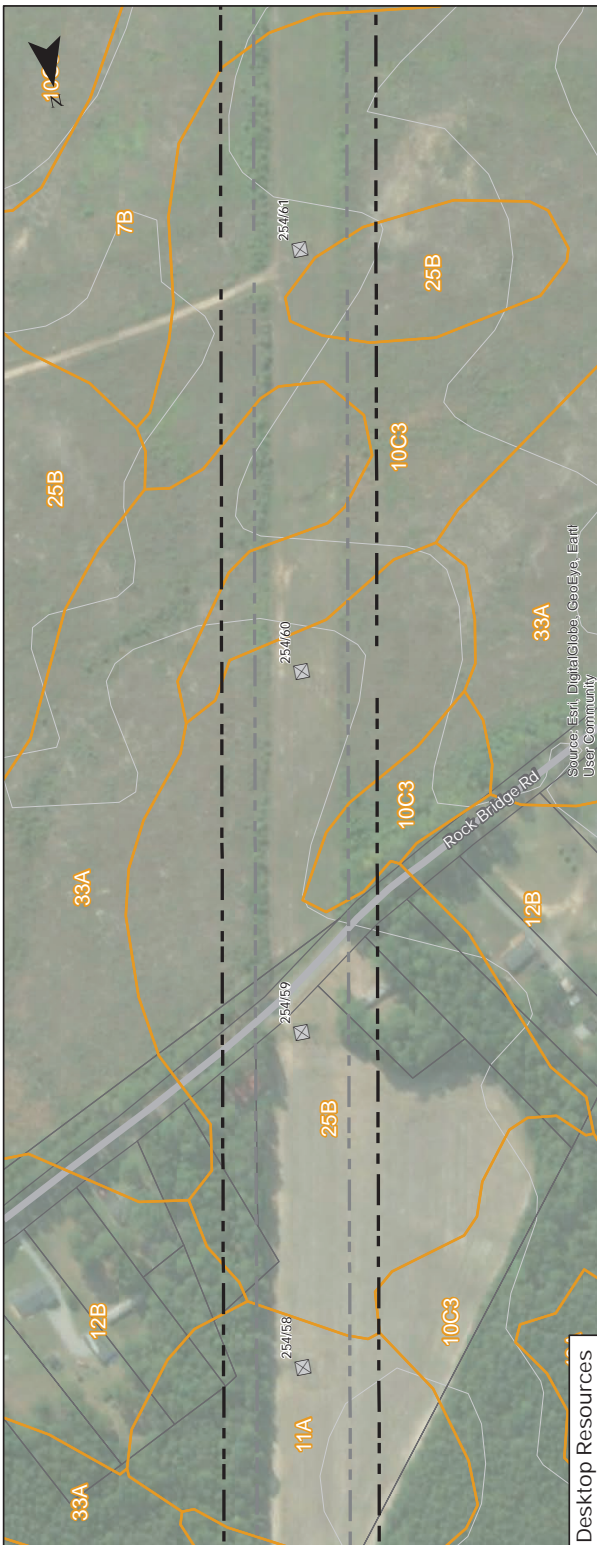
FEMA 100-Year Floodplain

Parcel Boundary

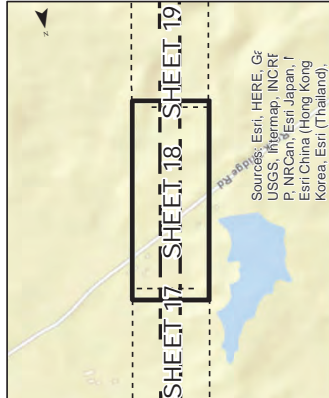
Existing 10 FT Contour



Field Delineation



Desktop Resources

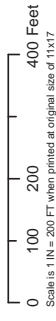


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

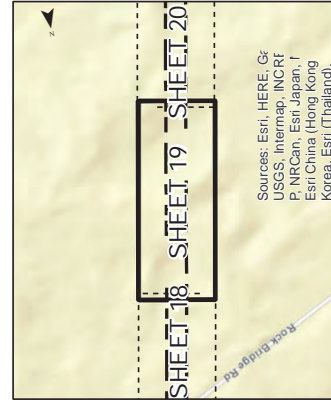
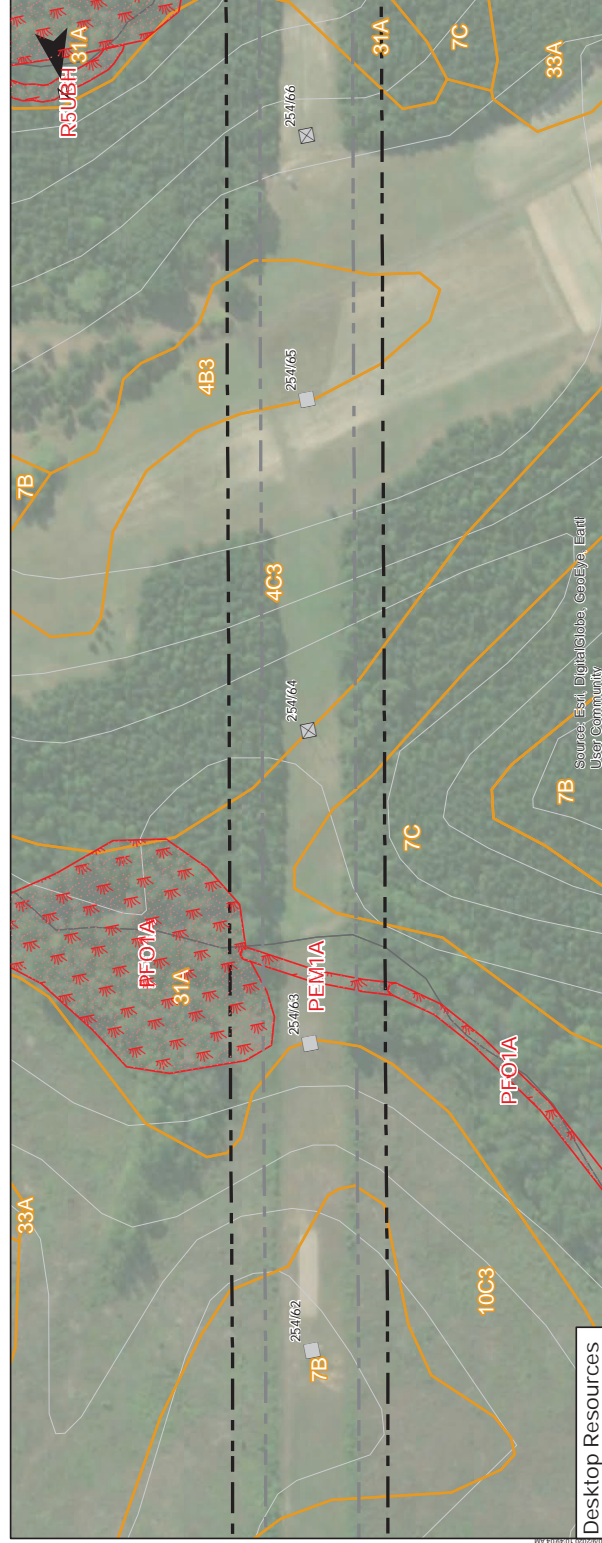
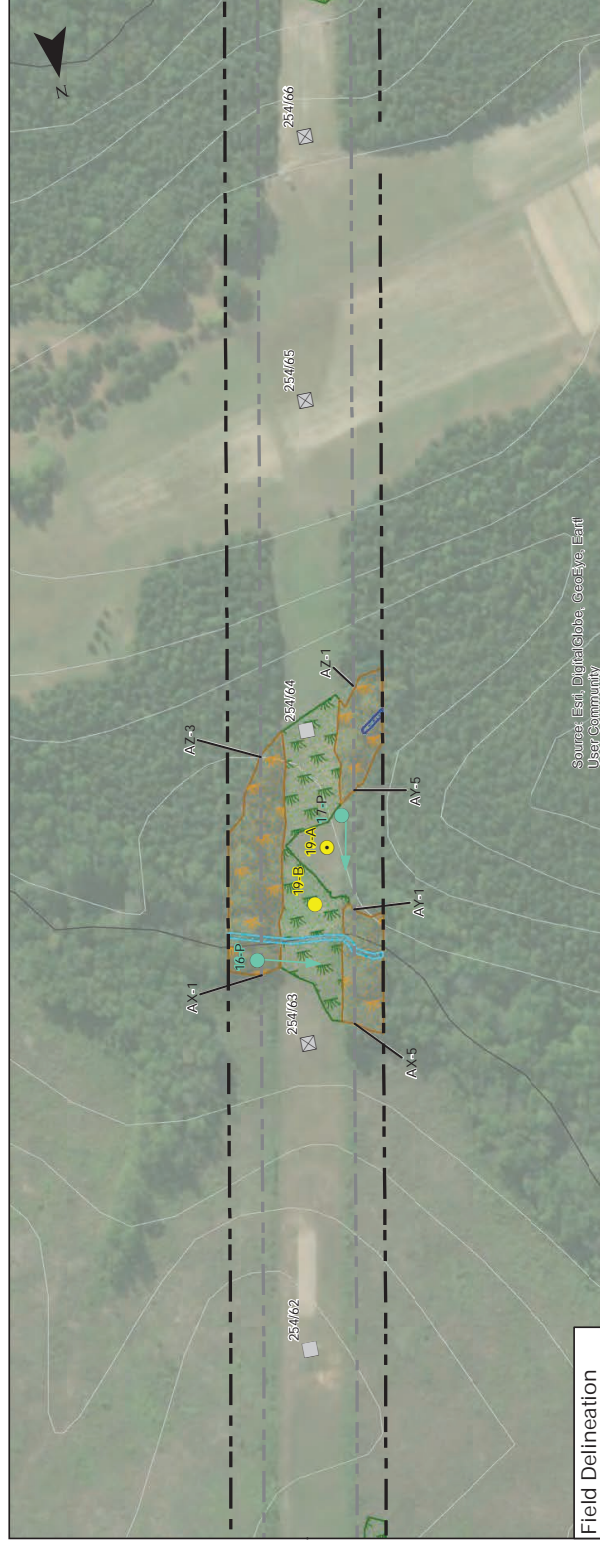
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115 Prepared By: AJB Date: 10/21/20



SITE DATA

-
- Existing Transmission Line Right of Way
 - Study Area Limits
 - Existing Structure
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 - Approximate Jurisdictional Ditch Limits
 - NRWI Wetlands
 - NRCS Soil Series
 - FEMA 100-Year Floodplain
 - Parcel Boundary
 - Existing 10 FT Contour

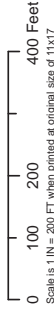


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

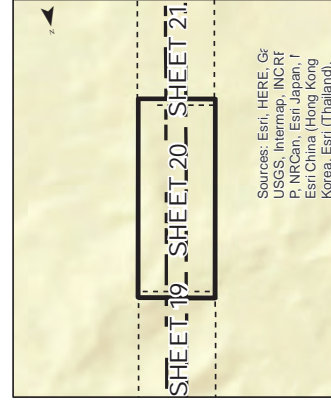
Owner/Developer:
Dominion Energy Virginia

C2 Env Project:	Prepared By:	Date:
0115	AJB	10/21/20

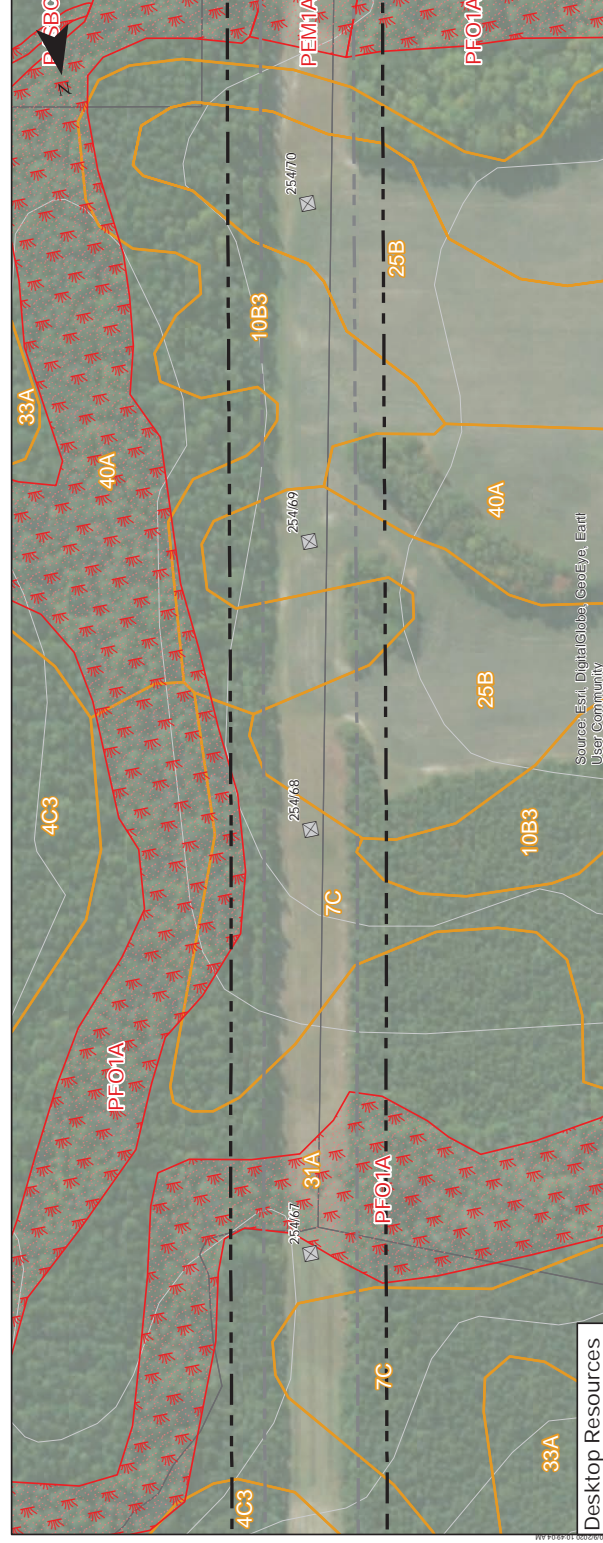


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SHEET 20 OF 32



WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:

Dominion Energy Virginia

C2 Env Project:

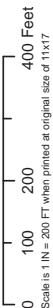
0115

Prepared By:

AJB

Date:

10/21/20



SITE DATA

Existing Transmission Line Right of Way

Study Area Limits

Existing Structure

B-1 Wetland Flag Series

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Approximate PEM Wetland Limits

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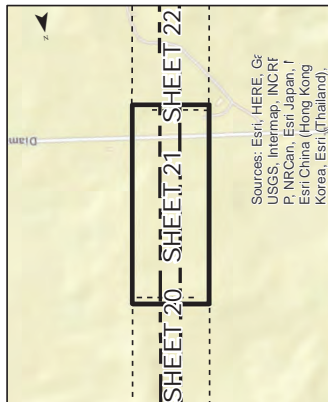
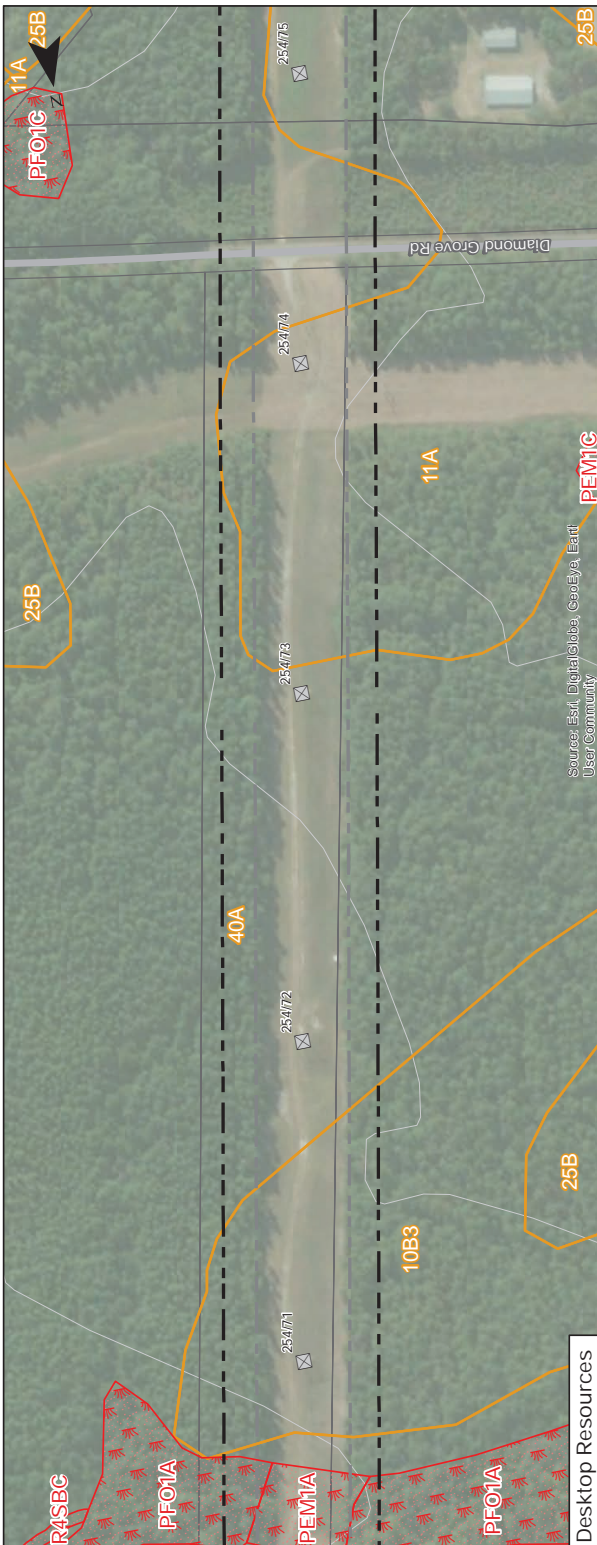
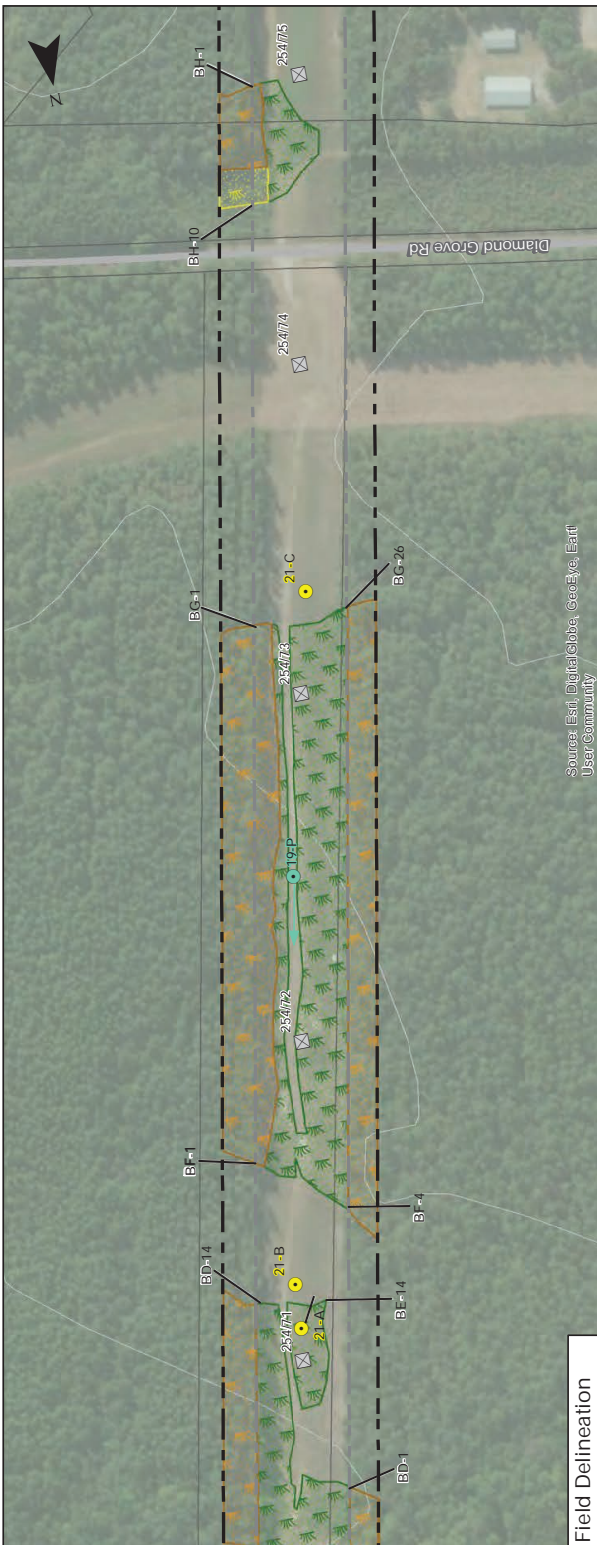
NWI Wetlands

NRCS Soil Series

FEMA 100-Year Floodplain

Parcel Boundary

Existing 10 FT Contour

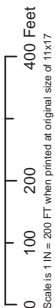


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AJB
Date: 10/21/20



SITE DATA

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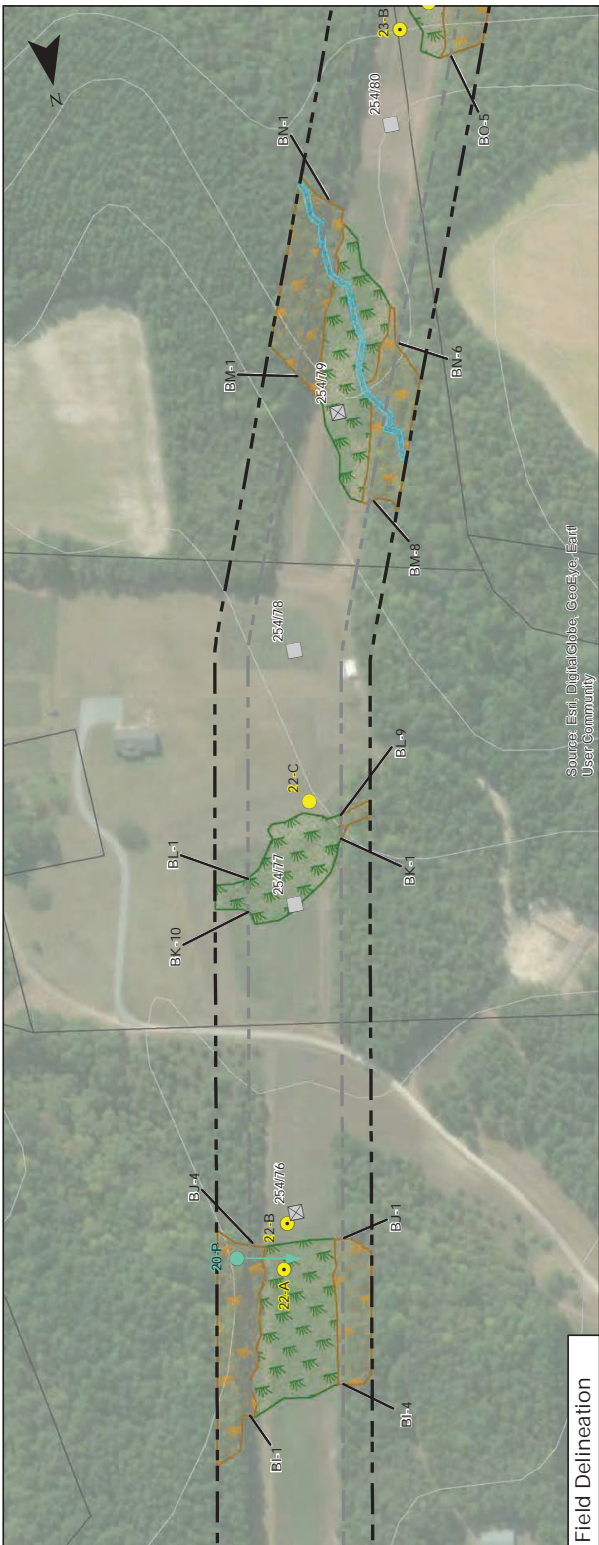
NWI Wetlands

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FEMA 100-Year Floodplain

Parcel Boundary

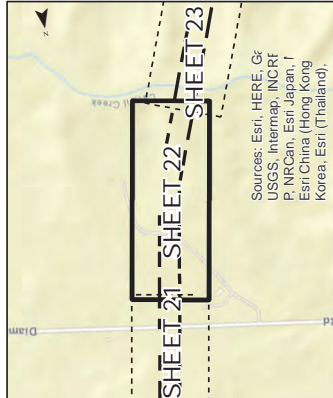
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Field Delineation



Desktop Resources

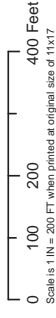


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

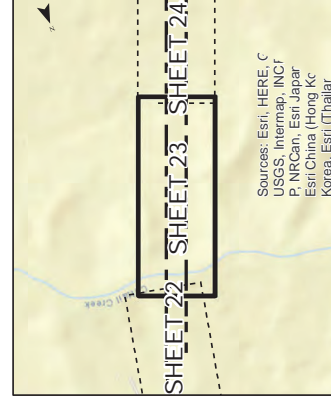
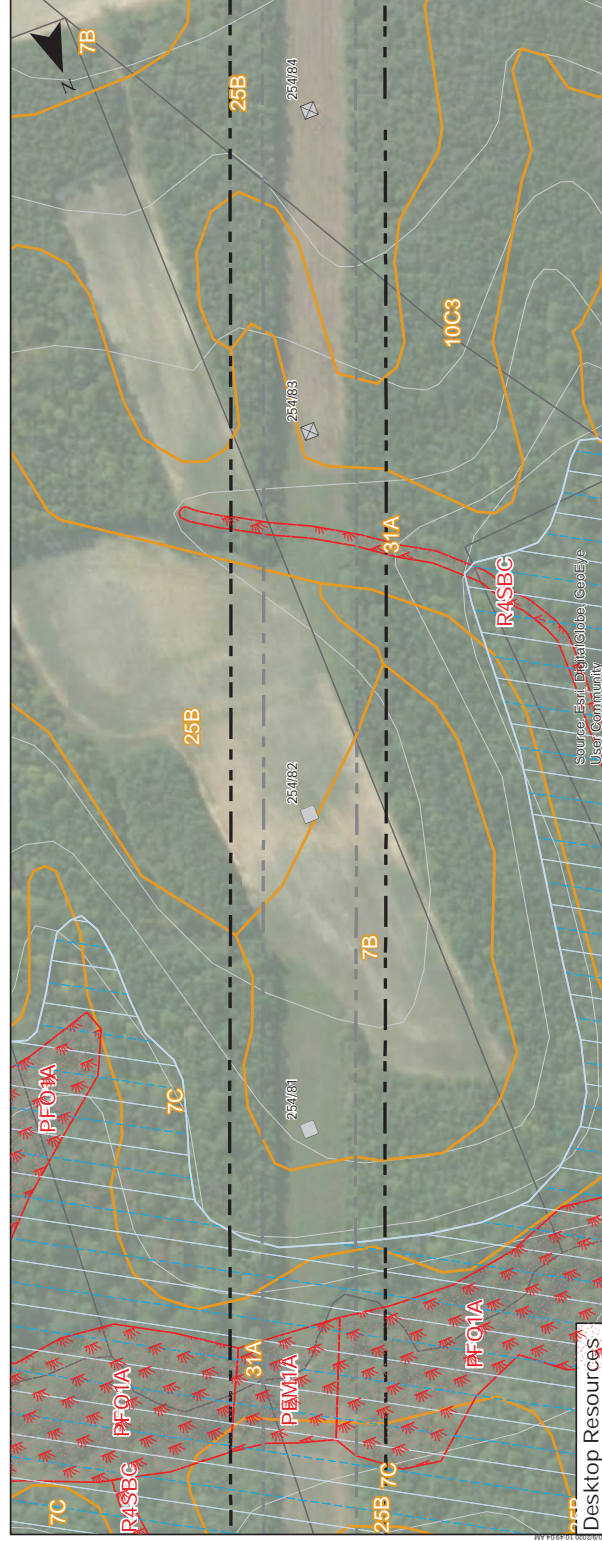
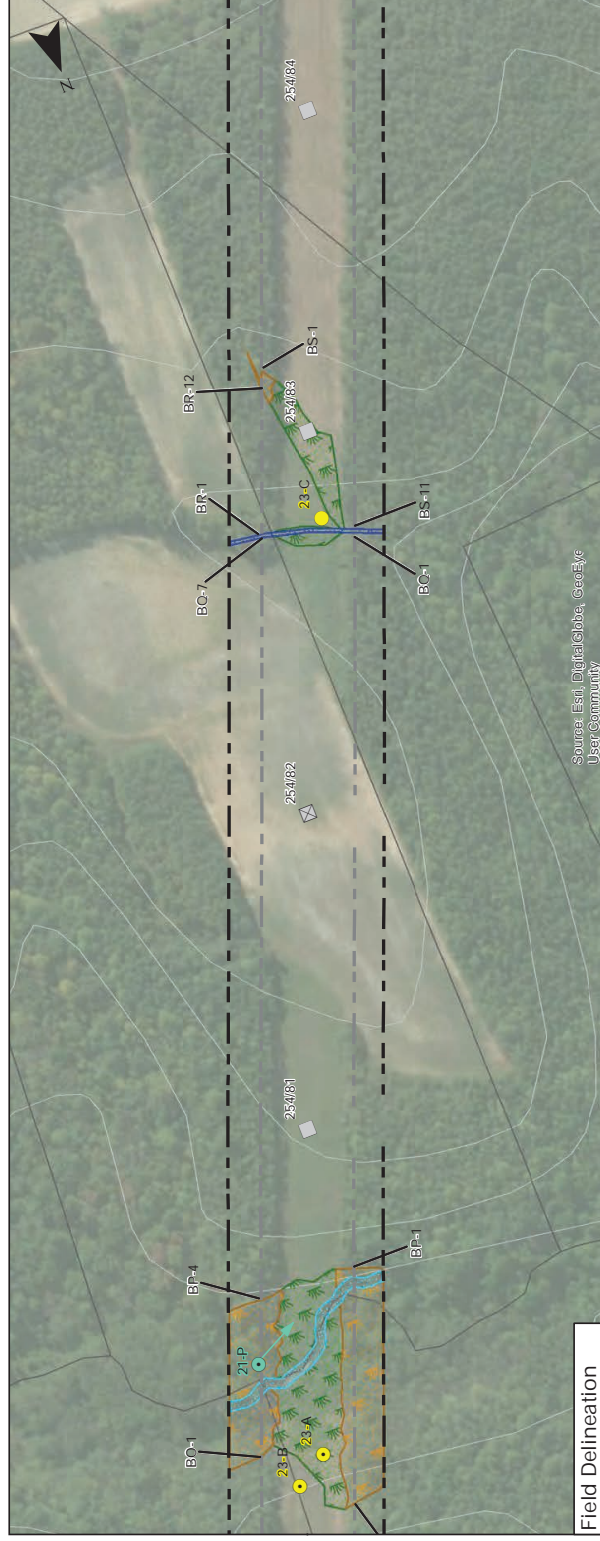
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115 Prepared By: AJB Date: 10/21/20



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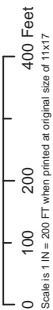


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

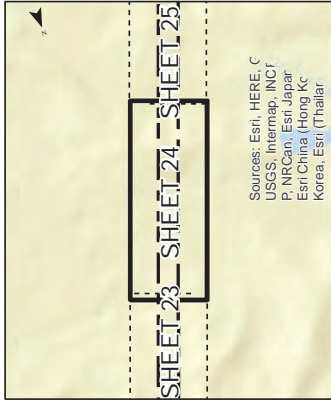
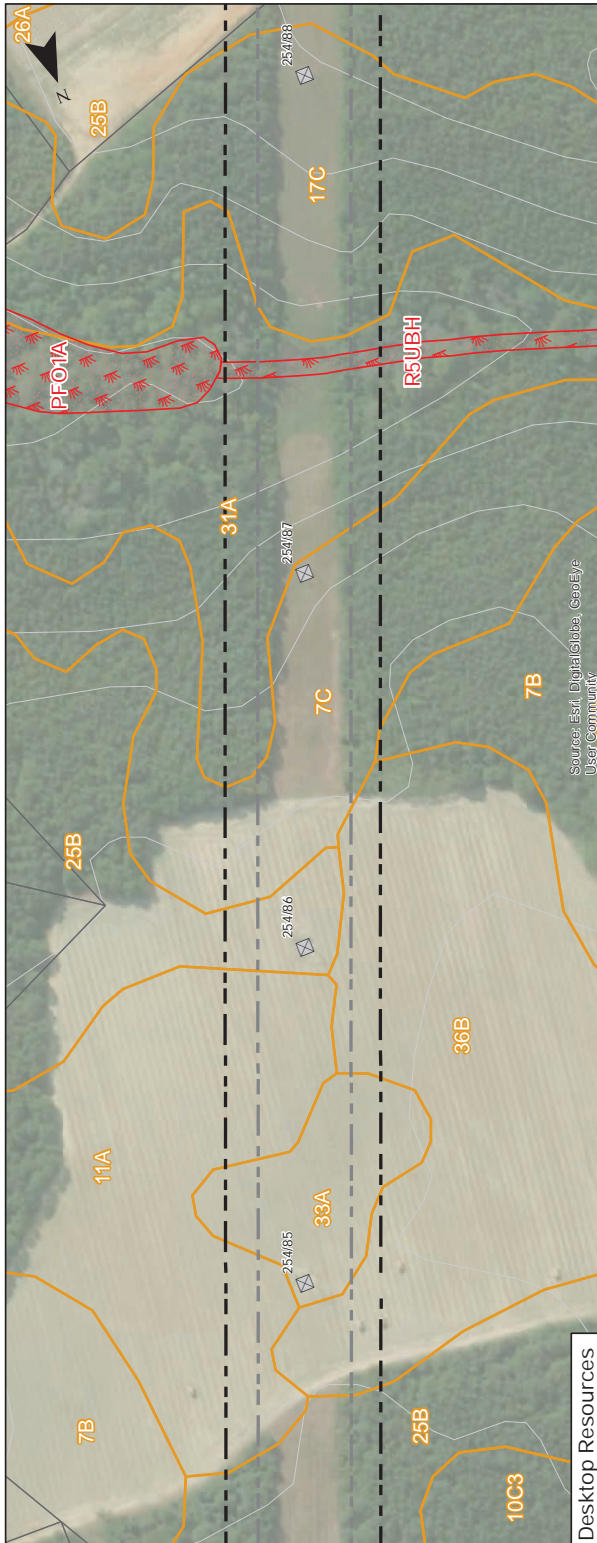
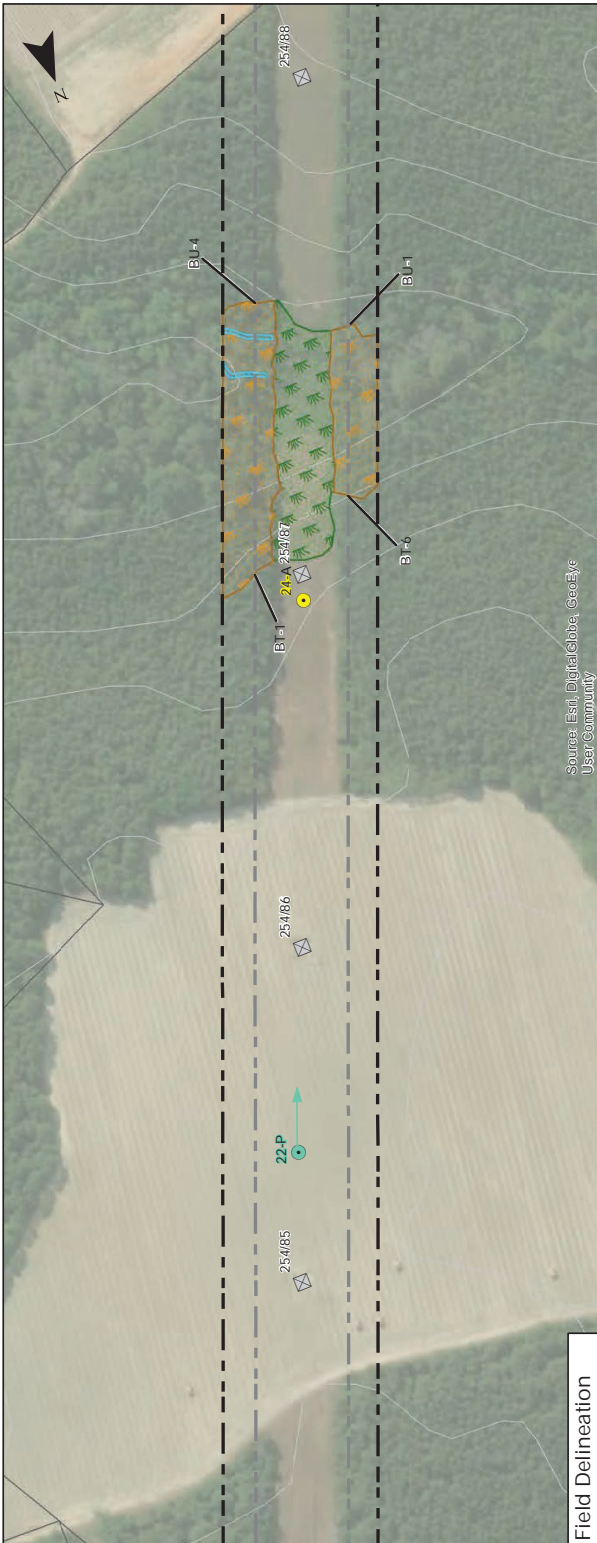
Owner/Developer:
Dominion Energy Virginia

C2 Env Project:	Prepared By:	Date:
0115	AJB	10/21/20



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WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:

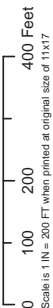
Dominion Energy Virginia

C2 Env Project: Prepared By: AJB

Date:

10/21/20

0115

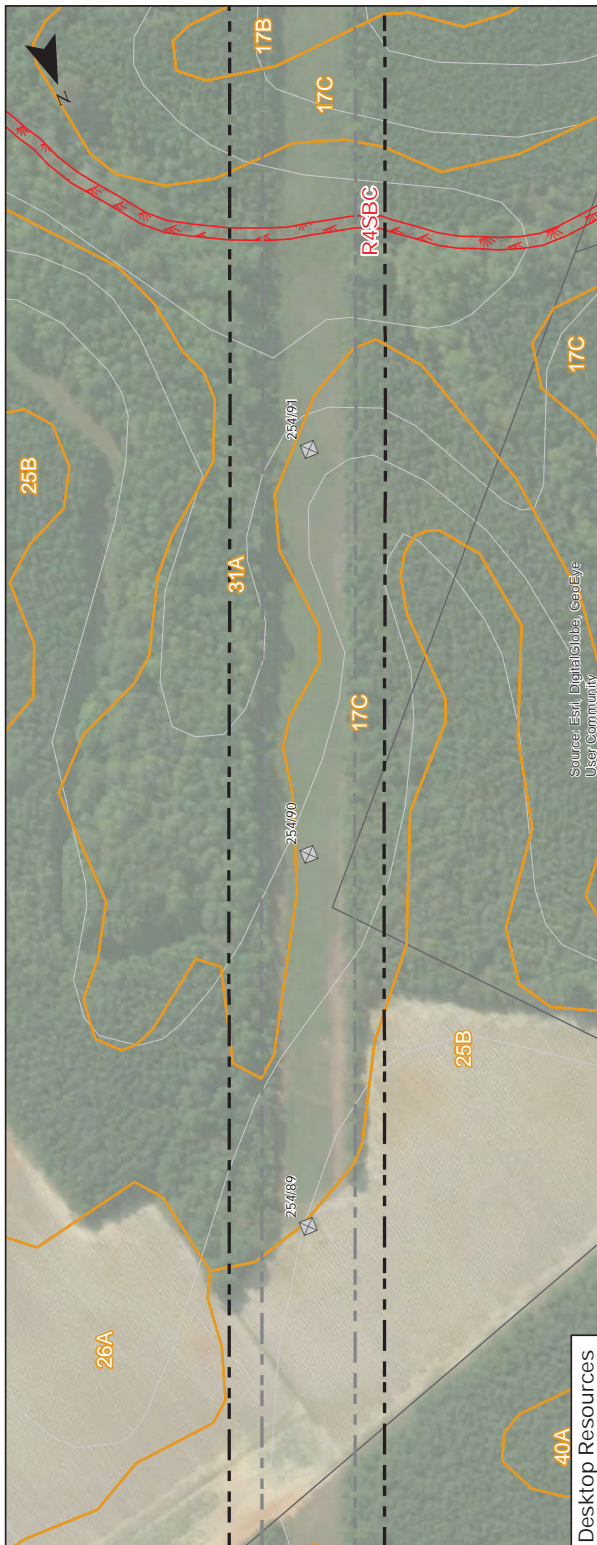


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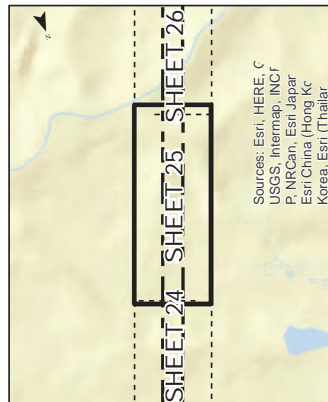
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Field Delineation



Desktop Resources

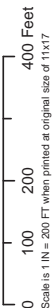


WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AJB
Date: 10/21/20

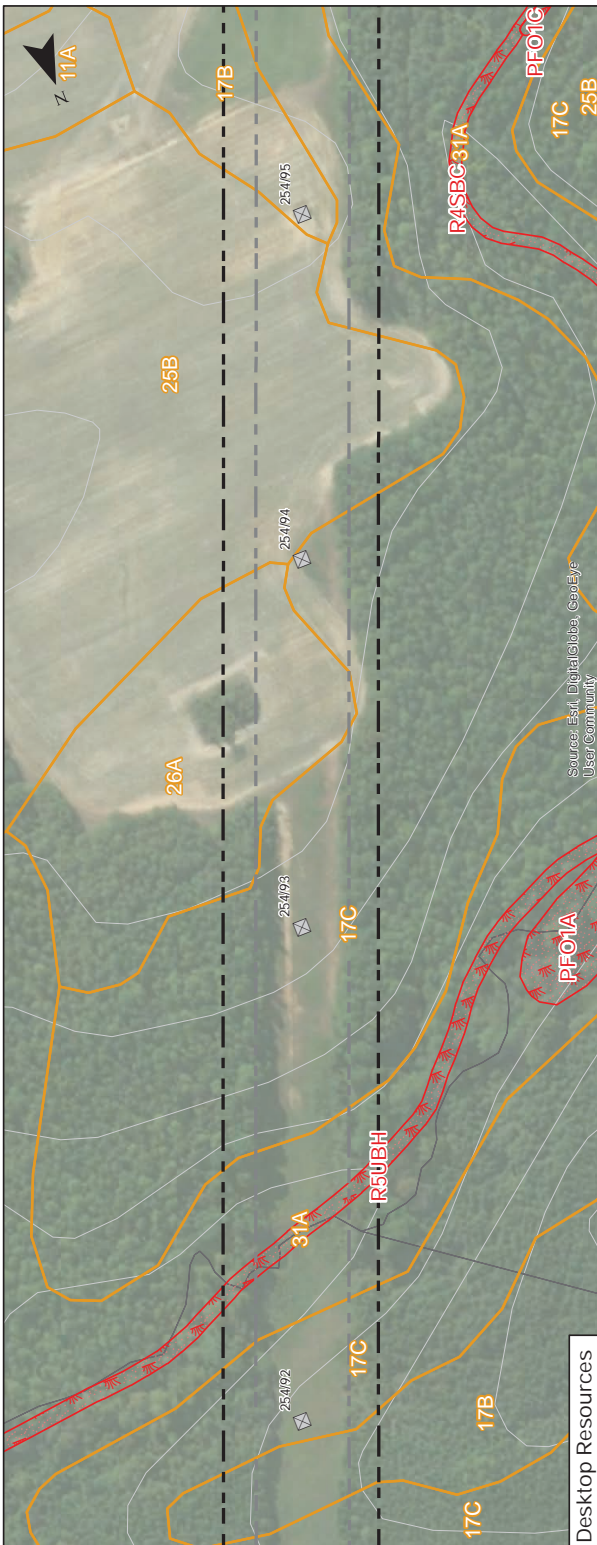


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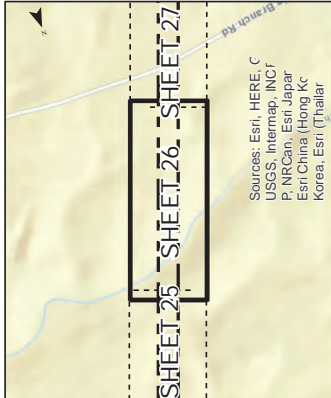
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Field Delineation



Desktop Resources



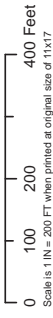
SHEET 26 OF 32

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

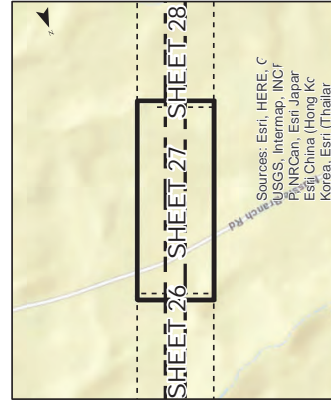
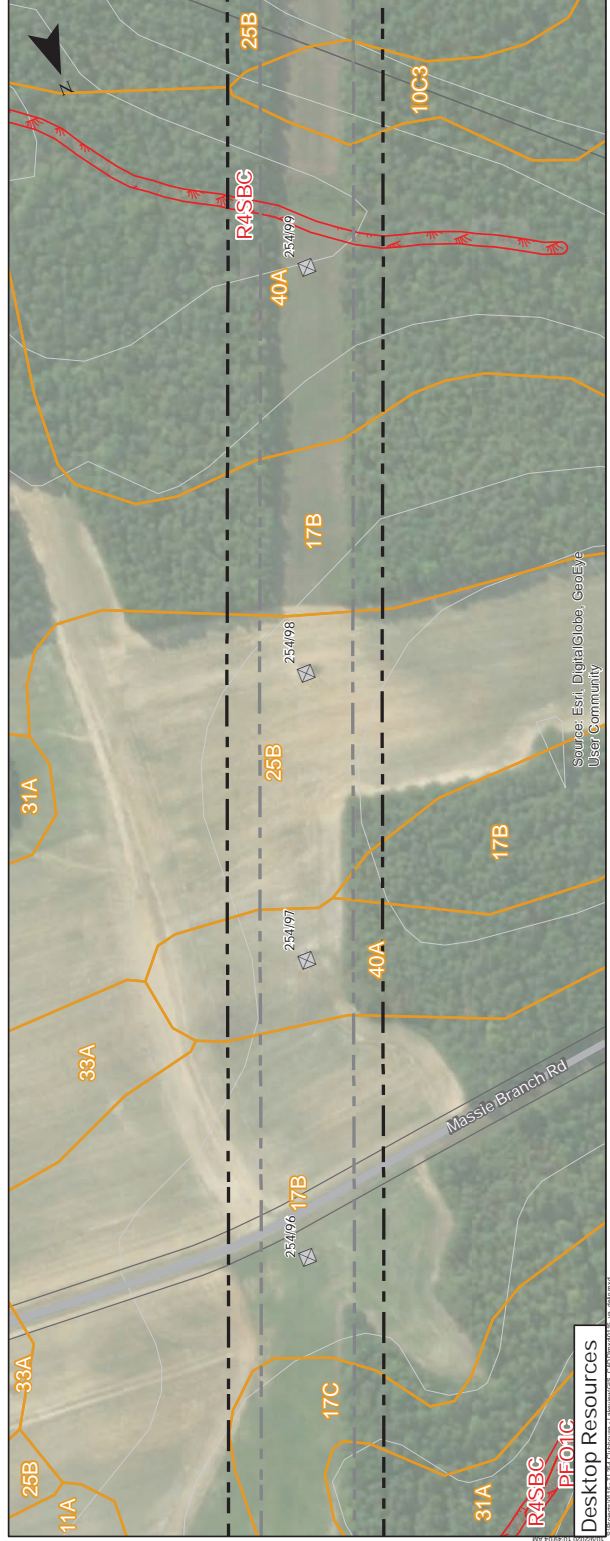
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AUB
Date: 10/21/20



SITE DATA

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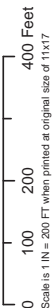
SHEET 27 OF 32

WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

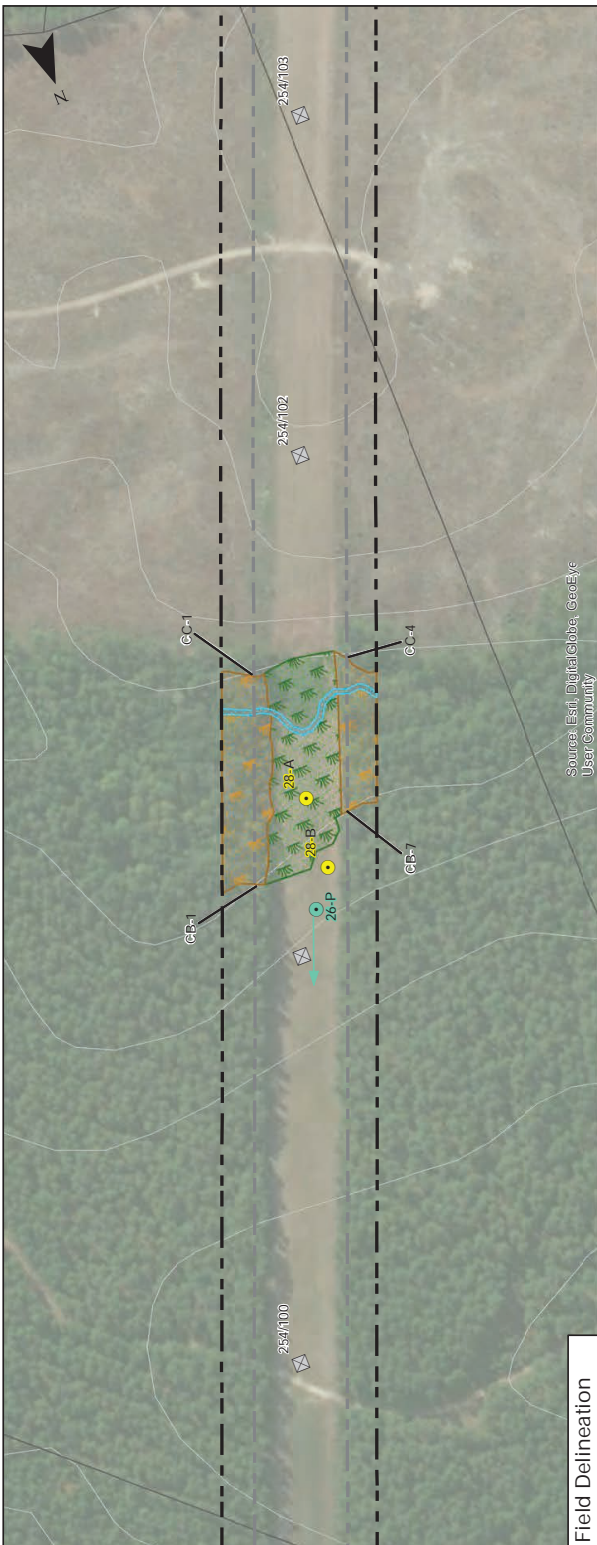
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AJB
Date: 10/21/20

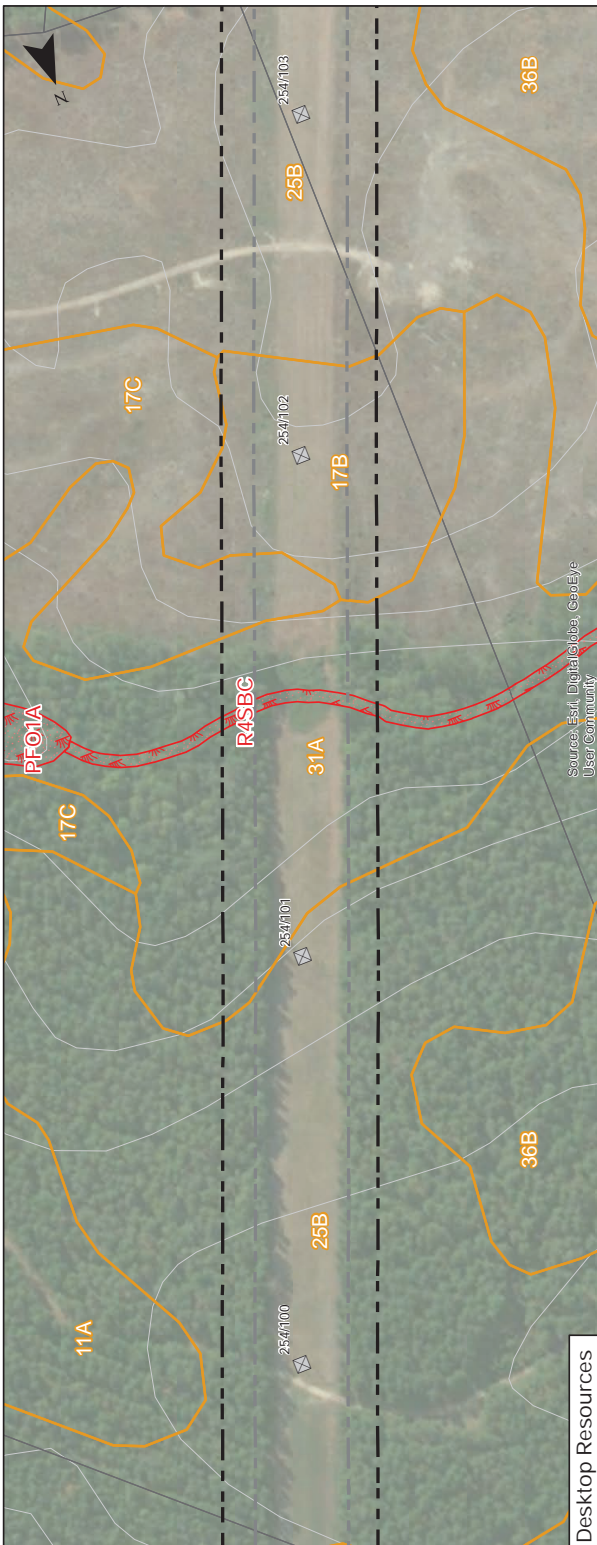


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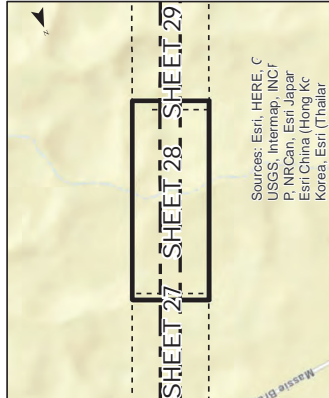
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Field Delineation



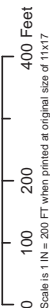
Desktop Resources



WETLAND DELINEATION MAP

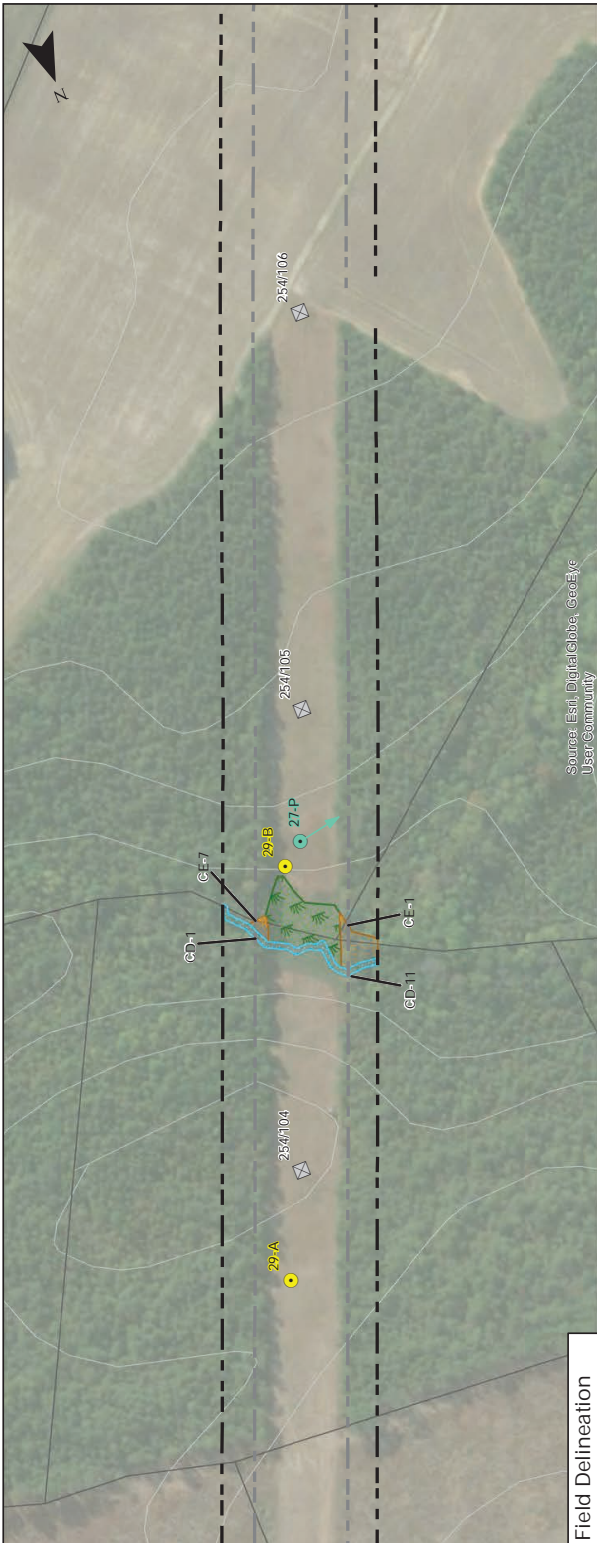
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia
Owner/Developer:
Dominion Energy Virginia

C2 Env Project: 0115
Prepared By: AUB
Date: 10/21/20

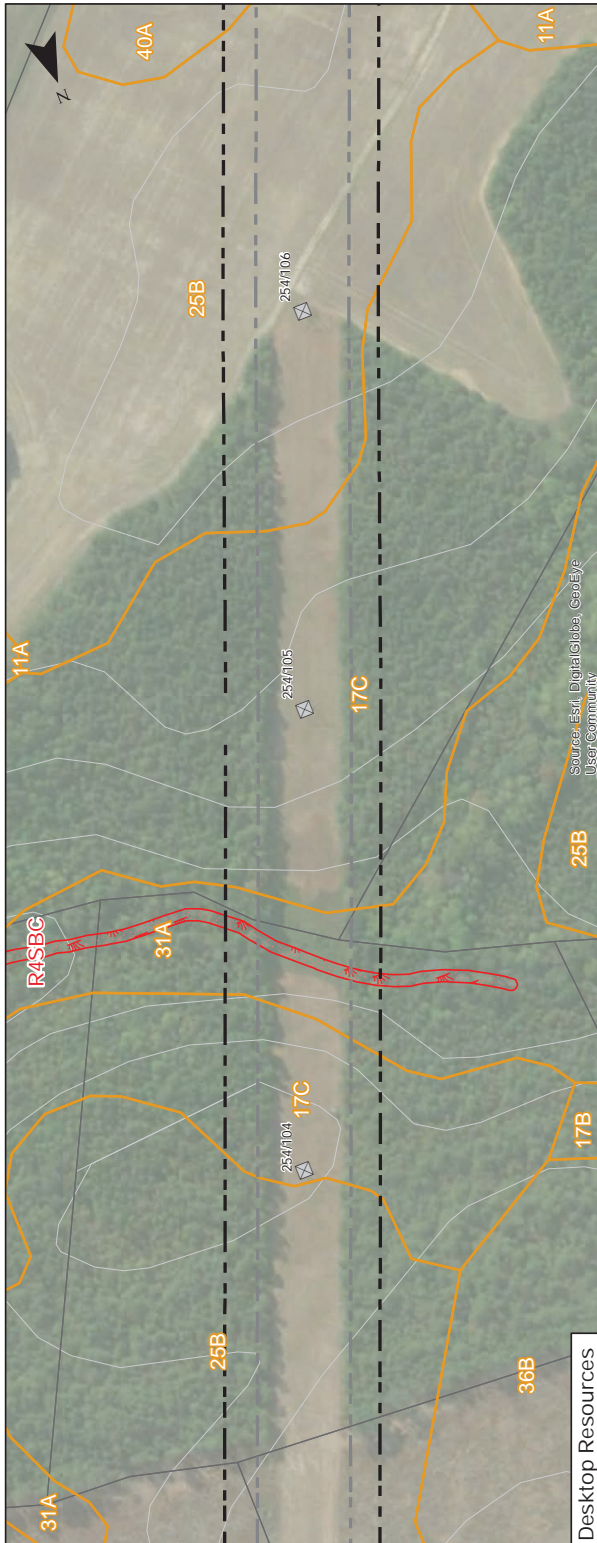


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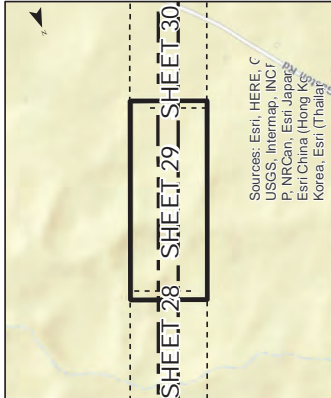
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Field Delineation



Desktop Resources



WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Owner/Developer:

Dominion Energy Virginia

C2 Env Project: Prepared By:

0115 AUB

Date:

10/21/20



SITE DATA

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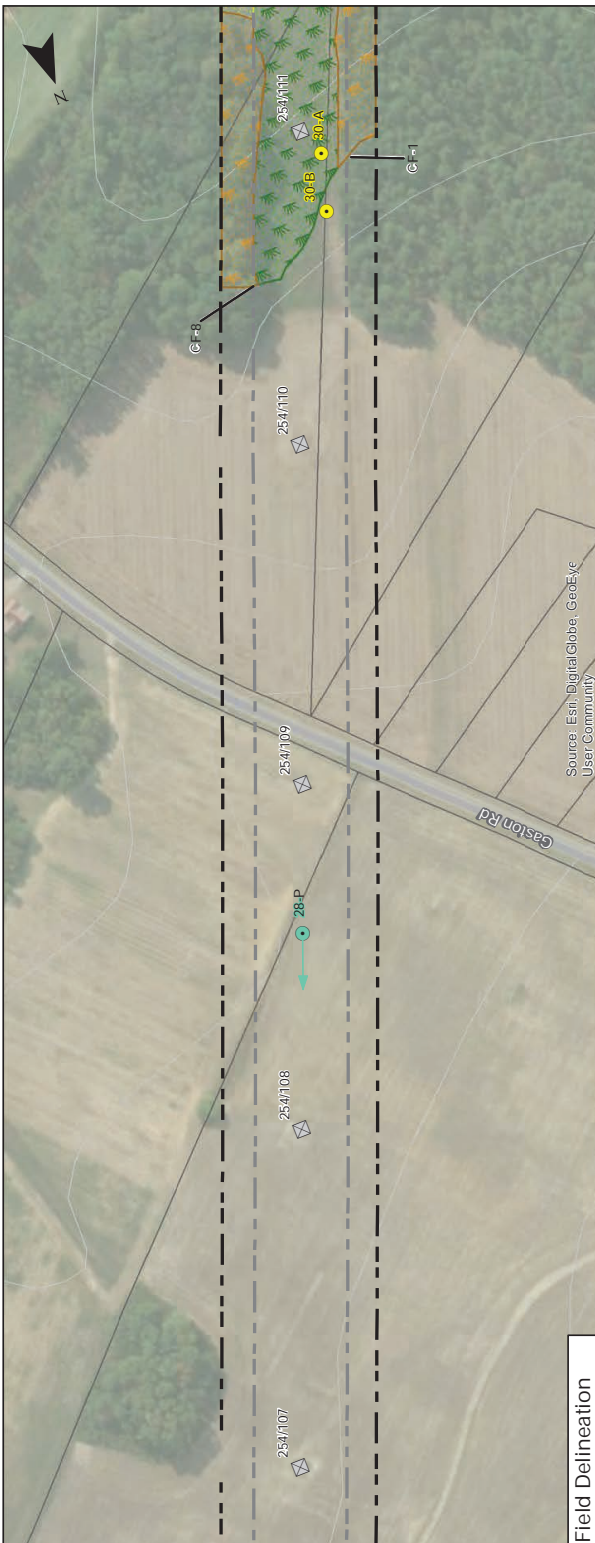
NWI Wetlands

NRCS Soil Series

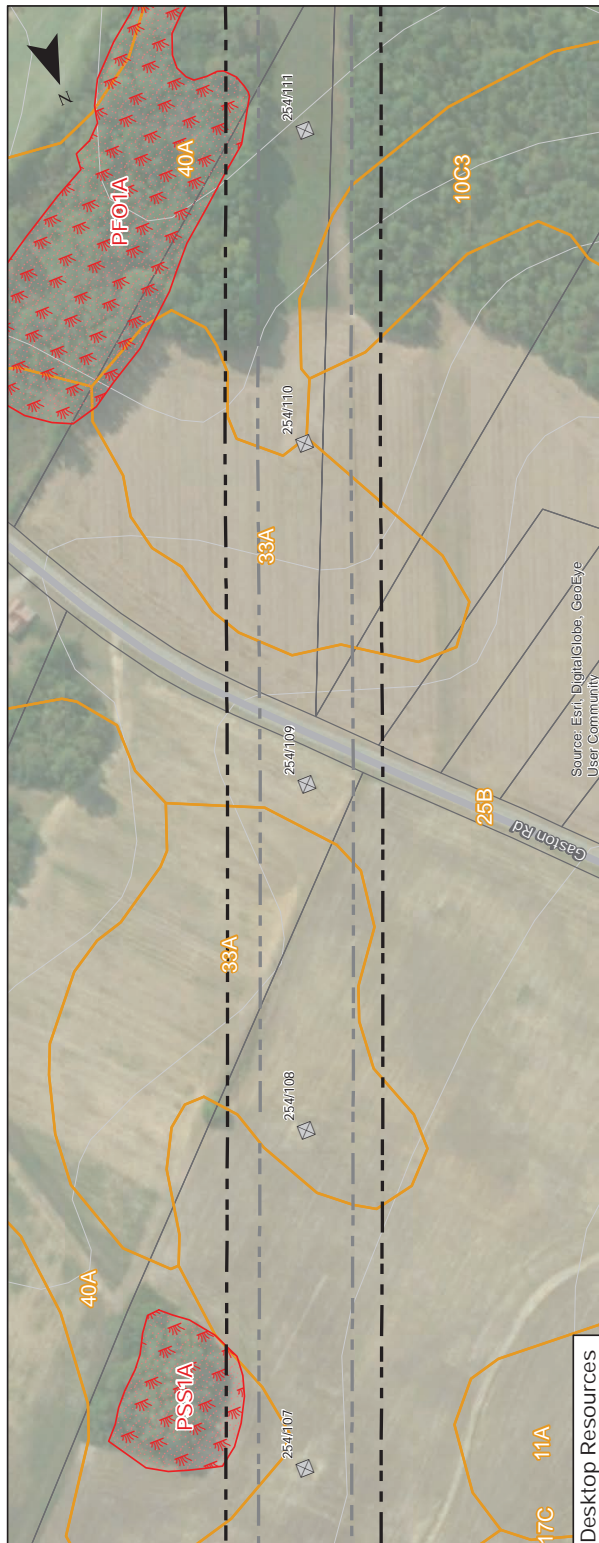
FEMA 100-Year Floodplain

Parcel Boundary

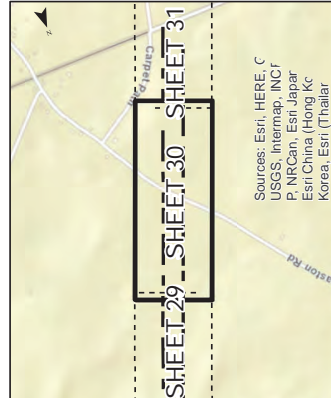
Existing 10 FT Contour



Field Delineation



Desktop Resources



SHEET 30 OF 32

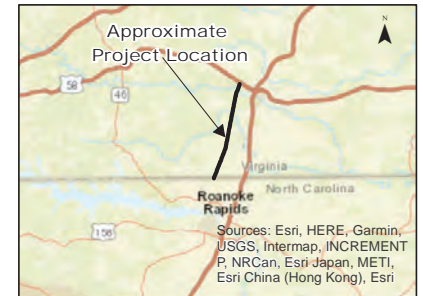
WETLAND DELINEATION MAP

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Greensville, Virginia

Client:
Dominion Energy Virginia

C2 Env Project:	Prepared By:	Date:
0115	GCF	10/21/20

Soil Map Unit	Series Name	Hydric Rating
10B3	Craven clay loam, 2 to 6 percent slopes, severely eroded	Yes
10C3	Craven clay loam, 6 to 12 percent slopes, severely eroded	Yes
11A	Dothan loamy sand, 0 to 2 percent slopes	No
12B	Emporia loamy fine sand, 2 to 6 percent slopes	No
14B	Fluvanna loam, 2 to 7 percent slopes	No
15B3	Fluvanna clay loam, 2 to 7 percent slopes, severely eroded	No
15C3	Fluvanna clay loam, 7 to 15 percent slopes, severely eroded	No
17B	Fluvanna-Mattaponi complex, 2 to 7 percent slopes	No
17C	Fluvanna-Mattaponi complex, 7 to 15 percent slopes	No
19C3	Georgeville clay loam, 7 to 15 percent slopes, severely eroded	No
20B	Helena gravelly coarse sandy loam, 2 to 7 percent slopes	No
21B	Iredell loam, 2 to 7 percent slopes	Yes
25B	Mattaponi sandy loam, 2 to 6 percent slopes	No
25C	Mattaponi gravelly sandy loam, 6 to 15 percent slopes	No
26A	Orangeburg loamy sand, 0 to 2 percent slopes	No
30A	Riverview silt loam, 0 to 2 percent slopes, frequently flooded	No
31A	Roanoke loam, 0 to 2 percent slopes, frequently flooded	Yes
33A	Slagle fine sandy loam, 0 to 3 percent slopes	Yes
36B	Uchee loamy sand, 0 to 6 percent slopes	No
37	Udorthents, smoothed, 0 to 25 percent slopes	No
38A	Wickham fine sandy loam, 0 to 3 percent slopes	Yes
40A	Woodington fine sandy loam, 0 to 2 percent slopes	Yes
4B3	Appling sandy clay loam, 2 to 7 percent slopes, severely eroded	No
4C3	Appling sandy clay loam, 7 to 15 percent slopes, severely eroded	No
6C	Appling-Louisburg complex, 7 to 15 percent slopes	No
7B	Appling-Mattaponi complex, 2 to 7 percent slopes	No
7C	Appling-Mattaponi complex, 7 to 15 percent slopes	No
9A	Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	No
W	Water	Unranked



SHEET 32 OF 32

APPENDIX B

Corps Data Sheets

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
--	---

Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 06/30/20
 Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 4-A
 Investigator(s): S. Kupiec Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4-6
 Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.715083 Long: -77.586775 Datum: _____
 Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland above Flag A-16.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 4-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Liriodendron tulipifera</i>	15	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Shrub Stratum (Plot size: 30)			
1. <i>Rhus copallinum</i>	35	Yes	UPL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 18	20% of total cover: 7		
Herb Stratum (Plot size: 30)			
1. <i>Solidago altissima</i>	40	Yes	FACU
2. <i>Rubus argutus</i>	25	Yes	FAC
3. <i>Verbesina alternifolia</i>	15	No	FAC
4. <i>Sedge spp.</i>	15	No	
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 40	x 3 = 120
FACU species 55	x 4 = 220
UPL species 35	x 5 = 175
Column Totals: 130 (A)	515 (B)
Prevalence Index = B/A = 3.96	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is $\leq 3.0^1$

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes _____ No X

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 4-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 4/4	100					Loamy/Clayey	
6-20	7.5YR 4/6	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)			
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)			
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)			
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)			
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)			
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)			
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)			
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
					Hydric Soil Present? Yes _____ No <u>X</u> _____			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 06/30/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 4-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-3

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.715226 Long: -77.586757 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag A-13.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 4-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>80</u></td> <td>x 1 = <u>80</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>240</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.92</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>80</u>	x 1 = <u>80</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>240</u> (B)	Prevalence Index = B/A = <u>1.92</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>80</u>	x 1 = <u>80</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>125</u> (A)	<u>240</u> (B)																			
Prevalence Index = B/A = <u>1.92</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: 30)																				
1. <i>Salix nigra</i>	15	Yes	OBL																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
15 =Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Herb Stratum (Plot size: 30)																				
1. <i>Juncus effusus</i>	30	Yes	OBL																	
2. <i>Solidago altissima</i>	30	Yes	FACU																	
3. <i>Carex lupulina</i>	25	Yes	OBL																	
4. <i>Dichanthelium dichotomum</i>	10	No	FAC																	
5. <i>Ludwigia alternifolia</i>	10	No	OBL																	
6. <i>Carex albolutescens</i>	5	No	FACW																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
110 =Total Cover																				
50% of total cover: <u>55</u> 20% of total cover: <u>22</u>																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 4-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	2.5Y 4/2	95	10YR 5/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations
8-20	2.5Y 4/1	80	10YR 5/8	15	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 5/6	5	C	PL		Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 06/30/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 5-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Flat Slope (%): 0-1

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.709763 Long: -77.589246 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: PFO1Ch

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag D-2.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) _____ Surface Water (A1) _____ Aquatic Fauna (B13) <u>X</u> High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 5-A

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>120</u></td> <td>x 1 = <u>120</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>185</u> (A)</td> <td><u>300</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.62</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>120</u>	x 1 = <u>120</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>185</u> (A)	<u>300</u> (B)	Prevalence Index = B/A = <u>1.62</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>120</u>	x 1 = <u>120</u>																			
FACW species <u>25</u>	x 2 = <u>50</u>																			
FAC species <u>30</u>	x 3 = <u>90</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>185</u> (A)	<u>300</u> (B)																			
Prevalence Index = B/A = <u>1.62</u>																				
Sapling Stratum (Plot size: <u>30</u>)																				
1. <u>cer negundo</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>raxinus penns I anica</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>																		
Shrub Stratum (Plot size: <u>30</u>)																				
1. <u>orella cerifera</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>13</u>		20% of total cover: <u>5</u>																		
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Leersia or oides</u>	<u>50</u>	<u>Yes</u>	<u>OBL</u>																	
2. <u>Carex lupulina</u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>																	
3. <u>eltandra irginica</u>	<u>15</u>	<u>No</u>	<u>OBL</u>																	
4. <u>alium aparine</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
5. <u>ersicaria sagittata</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
6. <u>pha latifolia</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
7. <u>L. simachia ciliata</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
8. <u>mpatiens capensis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
9. <u>oehmeria c lindrica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
10. <u>Carex albolutescens</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
11. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>75</u>		20% of total cover: <u>30</u>																		
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 5-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth (inches)	Matrix		Redox Features				Texture	Remarks			
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²					
0-8	2.5Y 4/2	65	7.5YR 5/8	25	C	M	Loamy/Clayey	Prominent redox concentrations			
			7.5YR 4/6	10	C	PL		Prominent redox concentrations			
8-20	2.5Y 4/1	90	7.5YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <table border="0" style="width: 100%;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D) <input type="checkbox"/> Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154) </td> <td style="width: 33%; vertical-align: top;"> Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Coast Prairie Redox (A16) (outside MLRA 150A) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) <input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) <input type="checkbox"/> Other (Explain in Remarks) </td> </tr> </table>									<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D) <input type="checkbox"/> Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154)	Indicators for Problematic Hydric Soils ³ : <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Coast Prairie Redox (A16) (outside MLRA 150A) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) <input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D) <input type="checkbox"/> Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154)	Indicators for Problematic Hydric Soils ³ : <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Coast Prairie Redox (A16) (outside MLRA 150A) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) <input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) <input type="checkbox"/> Other (Explain in Remarks)									
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____				
Remarks:											

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 06/30/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 5-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.710011 Long: -77.589141 Datum: _____

Soil Map Unit Name: Fluvanna clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:
Upland at Flag D-2.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): _____
 Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 5-B

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: <u>30</u>)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: <u>30</u>)			
1. <u>orella cerifera</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>3</u>	20% of total cover: <u>1</u>		
Herb Stratum (Plot size: <u>30</u>)			
1. <u>erbesina alternifolia</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>
2. <u>chillea millefolium</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Solidago altissima</u>	<u>25</u>	<u>No</u>	<u>FACU</u>
4. <u>Lespede a cuneata</u>	<u>20</u>	<u>No</u>	<u>FACU</u>
5. <u>ubus argutus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>65</u>	20% of total cover: <u>26</u>		
Woody Vine Stratum (Plot size: <u>30</u>)			
1. <u>Smilax bona nox</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
2. <u>itis rotundifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
3. <u>arthenocissus uin uefolia</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>10</u>	20% of total cover: <u>4</u>		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>70</u>	x 3 = <u>210</u>
FACU species <u>85</u>	x 4 = <u>340</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>155</u> (A)	<u>550</u> (B)
Prevalence Index = B/A = <u>3.55</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 5-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 5/6	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: <u>Gravel</u>								
Depth (inches): <u>6</u>					Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 06/30/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 5-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 6-8

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.712133 Long: -77.588492 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:

Upland Above Line C.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 5-C

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: <u>30</u>)			
1. <u>Li uidambar st raciflua</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Cercis canadensis</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>18</u>	20% of total cover: <u>7</u>		
Shrub Stratum (Plot size: <u>30</u>)			
1. <u>hus copallinum</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>8</u>	20% of total cover: <u>3</u>		
Herb Stratum (Plot size: <u>30</u>)			
1. <u>Solidago altissima</u>	<u>55</u>	<u>Yes</u>	<u>FACU</u>
2. <u>erbesina alternifolia</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
3. <u>I mus h strix</u>	<u>15</u>	<u>No</u>	<u>UPL</u>
4. <u>Lespede a cuneata</u>	<u>15</u>	<u>No</u>	<u>FACU</u>
5. <u>ubus argutus</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
6. <u>Dichanthelium scoparium</u>	<u>10</u>	<u>No</u>	<u>FACW</u>
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>65</u>	20% of total cover: <u>26</u>		
Woody Vine Stratum (Plot size: <u>30</u>)			
1. <u>itis rotundifolia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: <u>5</u>	20% of total cover: <u>2</u>		
Remarks: (If observed, list morphological adaptations below.)			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
Total Number of Dominant Species Across All Strata: <u>6</u> (B)	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)	
Prevalence Index worksheet:	
Total % Cover of: _____	Multiply by: _____
OBL species <u>0</u> x 1 = <u>0</u>	
FACW species <u>10</u> x 2 = <u>20</u>	
FAC species <u>70</u> x 3 = <u>210</u>	
FACU species <u>70</u> x 4 = <u>280</u>	
UPL species <u>40</u> x 5 = <u>200</u>	
Column Totals: <u>190</u> (A)	<u>710</u> (B)
Prevalence Index = B/A = <u>3.74</u>	
Hydrophytic Vegetation Indicators:	
<u>1</u> - Rapid Test for Hydrophytic Vegetation	
<u>2</u> - Dominance Test is >50%	
<u>3</u> - Prevalence Index is ≤3.0 ¹	
<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Five Vegetation Strata:	
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
Woody Vine – All woody vines, regardless of height.	
Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	

SOIL

Sampling Point: 5-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	2.5Y 5/6	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 06/30/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 6-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.705539 Long: -77.591566 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Structure 254/8.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 6-A

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>310</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.65</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>85</u> (A)	<u>310</u> (B)	Prevalence Index = B/A = <u>3.65</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>30</u>	x 3 = <u>90</u>																			
FACU species <u>55</u>	x 4 = <u>220</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>85</u> (A)	<u>310</u> (B)																			
Prevalence Index = B/A = <u>3.65</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Dichanthelium dichotomum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Solidago altissima</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>estuca spp</u>	<u>25</u>	<u>Yes</u>																		
4. <u>uthamia spp</u>	<u>25</u>	<u>Yes</u>																		
5. <u>udbec ia hirta</u>	<u>15</u>	<u>No</u>	<u>FACU</u>																	
6. <u>chillea millefolium</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
135 =Total Cover																				
50% of total cover: <u>68</u> 20% of total cover: <u>27</u>																				
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 6-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	100					Loamy/Clayey	
4-6	10YR 4/2	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input checked="" type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: <u>Compaction</u>								
Depth (inches): <u>6</u>						Hydric Soil Present? Yes <u>X</u> No <u> </u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 06/30/2020
 Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 6-B
 Investigator(s): S. Kupiec Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4-6
 Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.701054 Long: -77.593705 Datum: _____
 Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland above Flag G-3.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 6-B

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>460</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.18</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals: <u>110</u> (A)	<u>460</u> (B)	Prevalence Index = B/A = <u>4.18</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>40</u>	x 5 = <u>200</u>																			
Column Totals: <u>110</u> (A)	<u>460</u> (B)																			
Prevalence Index = B/A = <u>4.18</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>teridium a uilinum</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>estuca spp</u>	<u>35</u>	<u>Yes</u>																		
3. <u>Silphium compositum</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>																	
4. <u>upatorium rotundifolium</u>	<u>20</u>	<u>No</u>	<u>FAC</u>																	
5. <u>arthenium integrifolium</u>	<u>15</u>	<u>No</u>	<u>UPL</u>																	
6. <u>chillea millefolium</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. <u>arthenocissus uin uefolia</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>3</u> 20% of total cover: <u>1</u>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 6-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/3	100					Loamy/Clayey	
4-20	10YR 5/3	85	10YR 5/6	15	C	M	Loamy/Clayey	Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	MLRA 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16)
(MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21)
(outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes _____ No X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 07/01/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 7-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-3

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.000035 Long: -77.594127 Datum: _____

Soil Map Unit Name: Slagle fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag H-8.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 7-A

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>75</u></td> <td>x 2 = <u>150</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>330</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.64</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>75</u>	x 2 = <u>150</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>330</u> (B)	Prevalence Index = B/A = <u>2.64</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>75</u>	x 2 = <u>150</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>125</u> (A)	<u>330</u> (B)																			
Prevalence Index = B/A = <u>2.64</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <i>Dichanthelium scoparium</i>	<u>75</u>	<u>Yes</u>	<u>FACW</u>																	
2. <i>Juncus tenuis</i>	<u>20</u>	<u>No</u>	<u>FAC</u>																	
3. <i>runella ulgaris</i>	<u>15</u>	<u>No</u>	<u>FACU</u>																	
4. <i>ubus argutus</i>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. <i>arthenocissus uin uefolia</i>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 7-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	5YR 5/2	80	5YR 5/8	15	C	M	Loamy/Clayey	Prominent redox concentrations
			5YR 4/6	5	C	PL		Prominent redox concentrations
6-20	2.5Y 6/1	80	5YR 5/8	20	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)
<input type="checkbox"/> Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21) (outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes ☒ No ☐

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 7-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.699875 Long: -77.594127 Datum: _____

Soil Map Unit Name: Slagle fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland above Flag H-6.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 7-B

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
		=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>140</u></td> <td>(A) <u>405</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.89</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>140</u>	(A) <u>405</u> (B)	Prevalence Index = B/A = <u>2.89</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>55</u>	x 4 = <u>220</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>140</u>	(A) <u>405</u> (B)																			
Prevalence Index = B/A = <u>2.89</u>																				
50% of total cover: _____		20% of total cover: _____																		
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
		=Total Cover																		
50% of total cover: _____		20% of total cover: _____																		
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
		=Total Cover																		
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Dichanthelium scoparium</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>cnanthemum tenuifolium</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>udbec ia hirta</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>estuca spp</u>	<u>25</u>	<u>Yes</u>	_____																	
5. <u>ubus argutus</u>	<u>15</u>	<u>No</u>	<u>FACU</u>																	
6. <u>chillea millefolium</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
7. <u>upatorium rotundifolium</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
		150 =Total Cover																		
50% of total cover: <u>75</u>		20% of total cover: <u>30</u>																		
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. <u>Campsis radicans</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Smilax bona nox</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
		15 =Total Cover																		
50% of total cover: <u>8</u>		20% of total cover: <u>3</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																				

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 7-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	95	10YR 4/6	5	C	M	Loamy/Clayey	Distinct redox concentrations
4-20	10YR 4/4	95	10YR 4/6	5	C	M	Loamy/Clayey	Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> MLRA 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> (outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes _____ No X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 7-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.694206 Long: -77.595477 Datum: _____

Soil Map Unit Name: Woodington fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag I-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 7-C

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>255</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.13</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>105</u>	x 2 = <u>210</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>120</u> (A)	<u>255</u> (B)	Prevalence Index = B/A = <u>2.13</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>105</u>	x 2 = <u>210</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>120</u> (A)	<u>255</u> (B)																			
Prevalence Index = B/A = <u>2.13</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Dichanthelium scoparium</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>cnanthemum tenuifolium</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Juncus effusus</u>	<u>20</u>	<u>No</u>	<u>FACW</u>																	
4. <u>udbec ia hirta</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
5. <u>hexia mariana</u>	<u>5</u>	<u>No</u>	<u>OBL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
120 =Total Cover																				
50% of total cover: <u>60</u> 20% of total cover: <u>24</u>																				
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 7-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/2	70	10YR 5/8	25	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 4/6	5	C	M		Prominent redox concentrations
6-20	2.5Y 5/1	85	10YR 5/8	15	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)
<input type="checkbox"/> Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21) (outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes ☒ No ☐

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 7-D

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.694535 Long: -77.595394 Datum: _____

Soil Map Unit Name: Uchee loamy sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag I-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 7-D

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
		=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species <u>25</u></td> <td>x 5 = <u>125</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>360</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.24</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species <u>25</u>	x 5 = <u>125</u>	Column Totals: <u>85</u> (A)	<u>360</u> (B)	Prevalence Index = B/A = <u>4.24</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>55</u>	x 4 = <u>220</u>																			
UPL species <u>25</u>	x 5 = <u>125</u>																			
Column Totals: <u>85</u> (A)	<u>360</u> (B)																			
Prevalence Index = B/A = <u>4.24</u>																				
50% of total cover: _____		20% of total cover: _____																		
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
		=Total Cover																		
50% of total cover: _____		20% of total cover: _____																		
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
		=Total Cover																		
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>estuca spp</u>	<u>45</u>	<u>Yes</u>	_____																	
2. <u>Centaurea stoebe</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>																	
3. <u>Lespedeza cuneata</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>udbeckia hirta</u>	<u>20</u>	<u>No</u>	<u>FACU</u>																	
5. <u>chillea millefolium</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
		125 =Total Cover																		
50% of total cover: <u>63</u>		20% of total cover: <u>25</u>																		
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. <u>Campsis radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
		5 =Total Cover																		
50% of total cover: <u>3</u>		20% of total cover: <u>1</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 7-D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/3	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	MLRA 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16)
(MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21)
(outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Gravel Compaction
Depth (inches): 2Hydric Soil Present? Yes No ☒ X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020
 Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 8-A
 Investigator(s): S. Kupiec Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-3
 Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.688172 Long: -77.597120 Datum: _____
 Soil Map Unit Name: Slagle fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag L-3.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 8-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	25	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 13	20% of total cover: 5		
Shrub Stratum (Plot size: 30)			
1. <i>hus copallinum</i>	15	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Herb Stratum (Plot size: 30)			
1. <i>estuca spp</i>	35	Yes	
2. <i>I mus h strix</i>	20	Yes	UPL
3. <i>ubus argutus</i>	20	Yes	FACU
4. <i>Dichanthelium scoparium</i>	15	No	FACW
5. <i>chillea millefolium</i>	5	No	FACU
6. <i>Lespede a cuneata</i>	5	No	FACU
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Remarks: (Include photo numbers here or on a separate sheet.)			

Dominance Test worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)			
Total Number of Dominant Species Across All Strata: 5 (B)			
Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)			
Prevalence Index worksheet:			
Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	25	x 3 =	75
FACU species	45	x 4 =	180
UPL species	20	x 5 =	100
Column Totals:	105 (A)		385 (B)
Prevalence Index = B/A = 3.67			
Hydrophytic Vegetation Indicators:			
1 - Rapid Test for Hydrophytic Vegetation			
2 - Dominance Test is >50%			
3 - Prevalence Index is ≤3.0 ¹			
4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
Problematic Hydrophytic Vegetation ¹ (Explain)			
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Definitions of Five Vegetation Strata:			
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.			
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.			
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.			
Woody Vine – All woody vines, regardless of height.			
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>			

SOIL

Sampling Point: 8-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	7.5YR 5/6	100					Loamy/Clayey	
12-20	2.5Y 5/3	75	7.5YR 4/6	25	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	MLRA 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16)
(MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21)
(outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes _____ No X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020
 Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 9-A
 Investigator(s): S. Kupiec Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0-1
 Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.682001 Long: -77.598637 Datum: _____
 Soil Map Unit Name: Iredell loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag O-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 9-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>cer rubrum</i>	15	Yes	FAC
2. <i>Li uidambar st raciflua</i>	5	Yes	FAC
3. <i>Liriodendron tulipifera</i>	5	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 13	20% of total cover: 5		
Shrub Stratum (Plot size: 30)			
1. <i>Salix nigra</i>	5	Yes	OBL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Herb Stratum (Plot size: 30)			
1. <i>h nchospora inexpansa</i>	40	Yes	FACW
2. <i>upatorium rotundifolium</i>	25	Yes	FAC
3. <i>leocharis obtusa</i>	25	Yes	OBL
4. <i>hel pteris palustris</i>	15	No	FACW
5. <i>Dichanthelium scoparium</i>	5	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 55	20% of total cover: 22		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 30	x 1 = 30
FACW species 60	x 2 = 120
FAC species 45	x 3 = 135
FACU species 5	x 4 = 20
UPL species 0	x 5 = 0
Column Totals: 140 (A)	305 (B)
Prevalence Index = B/A = 2.18	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 9-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	2.5Y 4/1	85	10YR 3/6	15	C	PL	Loamy/Clayey	Prominent redox concentrations
5-20	2.5Y 6/1	85	10YR 5/6	15	C	M	Sandy	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input checked="" type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)
<input type="checkbox"/> Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21) (outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes ☒ No ☐

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 9-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.682228 Long: -77.598555 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag O-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 9-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Liriodendron tulipifera</i>	20	Yes	FACU
2. <i>runus serotina</i>	5	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 13	20% of total cover: 5		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>ubus argutus</i>	50	Yes	FACU
2. <i>ndropogon irginicus</i>	25	Yes	FACU
3. <i>upatorium capillifolium</i>	20	No	FACU
4. <i>uthamia spp</i>	15	No	
5. <i>chillea millefolium</i>	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 58	20% of total cover: 23		
Woody Vine Stratum (Plot size: 30)			
1. <i>Lonicera aponica</i>	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 130	x 4 = 520
UPL species 0	x 5 = 0
Column Totals: 130 (A)	520 (B)
Prevalence Index = B/A = 4.00	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation _____

2 - Dominance Test is >50% _____

3 - Prevalence Index is ≤3.0¹ _____

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) _____

Problematic Hydrophytic Vegetation¹ (Explain) _____

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 9-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/3	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	MLRA 136)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Coast Prairie Redox (A16)
(MLRA 147, 148)
<input type="checkbox"/> Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
<input type="checkbox"/> Red Parent Material (F21)
(outside MLRA 127, 147, 148)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Gravel
Depth (inches): 2Hydric Soil Present? Yes No X

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/1/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 10-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.676736 Long: -77.600149 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
---	---

Remarks:
 Upland south of Structure 254/27.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
---	--

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Relief too steep for geomorphic position.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 10-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Quercus rubra</i>	15	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Andropogon virginicus</i>	35	Yes	FAC
2. <i>Acroseris tomentosa</i>	20	Yes	FACU
3. <i>Urtica dioica</i>	15	Yes	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30)			
1. <i>Lonicera japonica</i>	20	Yes	FACU
2. <i>Ipomoea rotundifolia</i>	10	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 15	20% of total cover: 6		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 45	x 3 = 135
FACU species 70	x 4 = 280
UPL species 0	x 5 = 0
Column Totals: 115 (A)	415 (B)
Prevalence Index = B/A = 3.61	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 10-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 3/3	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/2/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 11-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.669158 Long: -77.602042 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:

Upland at Flag T-2.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 11-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	15	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Shrub Stratum (Plot size: 30)			
1. <i>accinium stamineum</i>	15	Yes	FACU
2. <i>hus copallinum</i>	15	Yes	UPL
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 30)			
1. <i>teridium a uilinum</i>	35	Yes	FACU
2. <i>lilium ineale</i>	15	Yes	FACU
3. <i>ubus argutus</i>	10	No	FAC
4. <i>Saccharum giganteum</i>	5	No	FACW
5. <i>Dichanthelium dichotomum</i>	5	No	FAC
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30)			
1. <i>Lonicera aponica</i>	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 30	x 3 = 90
FACU species 70	x 4 = 280
UPL species 15	x 5 = 75
Column Totals: 120 (A)	455 (B)
Prevalence Index = B/A = 3.79	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is $\leq 3.0^1$

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes _____ No X

SOIL

Sampling Point: 11-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/4	100					Loamy/Clayey	
6-20	10YR 5/6	85	10YR 6/2	15	D	M	Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 7/2/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 11-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.672020 Long: -77.601336 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Structure 254/31.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 11-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>250</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.78</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>250</u> (B)	Prevalence Index = B/A = <u>2.78</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>70</u>	x 3 = <u>210</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>90</u> (A)	<u>250</u> (B)																			
Prevalence Index = B/A = <u>2.78</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <u>Li uidambar st raciflua</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <u>erbesina alternifolia</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Dichanthelium scoparium</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>upatorium spp</u>	<u>20</u>	<u>Yes</u>	_____																	
4. <u>estuca spp</u>	<u>20</u>	<u>Yes</u>	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: 30)																				
1. <u>itis rotundifolia</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 11-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Loamy/Clayey	
4-6	10YR 5/4	100					Loamy/Clayey	
6-20	10YR 5/3	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) </div> <div style="width: 48%;"> <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D) <input type="checkbox"/> Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154) </div> <div style="width: 48%;"> Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Coast Prairie Redox (A16) (outside MLRA 150A) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T) <input type="checkbox"/> Anomalous Bright Floodplain Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) <input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> <div style="margin-top: 10px;"> ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. </div>								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes _____ No <u> X </u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/2/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 12-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.664061 Long: -77.603128 Datum: _____

Soil Map Unit Name: Roanoke Loam NWI classification: R2UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
---	---

Remarks:
Upland at Line W.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): _____
 Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 12-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>105</u></td> <td>x 3 = <u>315</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>145</u> (A)</td> <td><u>475</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.28</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>105</u>	x 3 = <u>315</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>145</u> (A)	<u>475</u> (B)	Prevalence Index = B/A = <u>3.28</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>105</u>	x 3 = <u>315</u>																			
FACU species <u>40</u>	x 4 = <u>160</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>145</u> (A)	<u>475</u> (B)																			
Prevalence Index = B/A = <u>3.28</u>																				
50% of total cover: _____		20% of total cover: _____																		
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: 30)																				
1. <i>I mus irginicus</i>	60	Yes	FAC																	
2. <i>Dichanthelium dichotomum</i>	30	Yes	FAC																	
3. <i>Solidago altissima</i>	25	No	FACU																	
4. <i>ubus argutus</i>	15	No	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
130 =Total Cover																				
50% of total cover: <u>65</u>		20% of total cover: <u>26</u>																		
Woody Vine Stratum (Plot size: 30)																				
1. <i>Lonicera aponica</i>	15	Yes	FACU																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
15 =Total Cover																				
50% of total cover: <u>8</u>		20% of total cover: <u>3</u>																		
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 12-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/20/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 12-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.663242 Long: -77.603413 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Structure 254/36.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 12-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 25</td> <td>x 2 = 50</td> </tr> <tr> <td>FAC species 75</td> <td>x 3 = 225</td> </tr> <tr> <td>FACU species 60</td> <td>x 4 = 240</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 160 (A)</td> <td>515 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 3.22</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 25	x 2 = 50	FAC species 75	x 3 = 225	FACU species 60	x 4 = 240	UPL species 0	x 5 = 0	Column Totals: 160 (A)	515 (B)	Prevalence Index = B/A = 3.22	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 25	x 2 = 50																			
FAC species 75	x 3 = 225																			
FACU species 60	x 4 = 240																			
UPL species 0	x 5 = 0																			
Column Totals: 160 (A)	515 (B)																			
Prevalence Index = B/A = 3.22																				
50% of total cover: _____		20% of total cover: _____																		
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: 30)																				
1. <i>Solidago altissima</i>	50	Yes	FACU																	
2. <i>ubus argutus</i>	25	Yes	FAC																	
3. <i>Dichanthelium scoparium</i>	25	Yes	FACW																	
4. <i>I mus irginicus</i>	10	No	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
110 =Total Cover																				
50% of total cover: 55		20% of total cover: 22																		
Woody Vine Stratum (Plot size: 30)																				
1. <i>Smilax glauca</i>	40	Yes	FAC																	
2. <i>Lonicera aponica</i>	10	Yes	FACU																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50 =Total Cover																				
50% of total cover: 25		20% of total cover: 10																		
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 12-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	2.5Y 5/4	95	10YR 5/6	5	C	M	Loamy/Clayey	Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: CompactionDepth (inches): 6Hydric Soil Present? Yes ☐ No ☒

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/20/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 12-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.661679 Long: -77.603881 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag Z-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 12-C

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>45</u></td> <td>x 1 = <u>45</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>105</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.50</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>45</u>	x 1 = <u>45</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>105</u> (B)	Prevalence Index = B/A = <u>1.50</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>45</u>	x 1 = <u>45</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>70</u> (A)	<u>105</u> (B)																			
Prevalence Index = B/A = <u>1.50</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>Juncus effusus</i>	45	Yes	OBL																	
2. <i>upatorium spp</i>	25	Yes																		
3. <i>Dichanthelium scoparium</i>	20	Yes	FACW																	
4. <i>mbrosia artemisiifolia</i>	5	No	FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
95 =Total Cover																				
50% of total cover: 48 20% of total cover: 19																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 12-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	2.5Y 4/2	70	10YR 3/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 4/6	5	C	PL		Prominent redox concentrations
			10YR 5/8	15	C	M		Prominent redox concentrations
4-20	2.5Y 4/2	80	10YR 5/8	20	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 7/20/20
 Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 13-A
 Investigator(s): S. Kupiec Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4-6
 Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.659181 Long: -77.604614 Datum: _____
 Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag AC-5.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 13-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>165</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.06</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>165</u> (B)	Prevalence Index = B/A = <u>2.06</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>65</u>	x 2 = <u>130</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>80</u> (A)	<u>165</u> (B)																			
Prevalence Index = B/A = <u>2.06</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>Scleria spp</i>	50	Yes																		
2. <i>cnanthemum tenuifolium</i>	30	Yes	FACW																	
3. <i>upatorium perfoliatum</i>	15	No	FACW																	
4. <i>Dichantheium scoparium</i>	15	No	FACW																	
5. <i>Setaria pumila</i>	5	No	FAC																	
6. <i>hexia mariana</i>	5	No	FACW																	
7. <i>Ludwigia palustris</i>	5	No	OBL																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
125 =Total Cover																				
50% of total cover: 63 20% of total cover: 25																				
Woody Vine Stratum (Plot size: 30)																				
1. <i>Smilax glauca</i>	5	Yes	FAC																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
5 =Total Cover																				
50% of total cover: 3 20% of total cover: 1																				
Remarks: (If observed, list morphological adaptations below.)																				

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 13-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Loamy/Clayey	
4-8	10YR 5/2	80	10YR 4/4	15	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 4/6	5	C	PL		Prominent redox concentrations
8-20	10YR 5/2	80	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations
			7.5YR 4/4	5	C	M		Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/20/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 13-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.659741 Long: -77.604487 Datum: _____

Soil Map Unit Name: Appling-Louisburg complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland below Flag AC-10.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 13-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>I mus irginicus</i>	40	Yes	FAC
2. <i>upatorium rotundifolium</i>	25	Yes	FAC
3. <i>chillea millefolium</i>	15	No	FACU
4. <i>Dichanthelium scoparium</i>	5	No	FACW
5. <i>Lespede a cuneata</i>	5	No	FACU
6. <i>runella ulgaris</i>	5	No	FAC
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
95 = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. <i>alactia olubilis</i>	25	Yes	FACU
2. <i>Campsis radicans</i>	10	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
35 = Total Cover			
50% of total cover: 18	20% of total cover: 7		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 80	x 3 = 240
FACU species 45	x 4 = 180
UPL species 0	x 5 = 0
Column Totals: 130 (A)	430 (B)
Prevalence Index = B/A = 3.31	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 13-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/3	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: <u>Compaction</u>								
Depth (inches): <u>6</u>					Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:								

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/20/2020
 Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 13-C
 Investigator(s): S. Kupiec Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4-6
 Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.657137 Long: -77.605137 Datum: _____
 Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 Upland above Flag AD-4.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)
		<input type="checkbox"/> Sphagnum Moss (D8) (LRR T, U)

Field Observations:				Wetland Hydrology Present? Yes _____ No <u>X</u>
Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____		
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____		
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____		

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 13-C

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)			
1. <i>S. mphoricarpus orbiculatus</i>	20	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 30)			
1. <i>ubus argutus</i>	55	Yes	FAC
2. <i>erbesina alternifolia</i>	35	Yes	FAC
3. <i>Dichanthelium scoparium</i>	25	No	FACW
4. <i>upatorium capillifolium</i>	5	No	FACU
5. <i>chillea millefolium</i>	5	No	FACU
6. <i>Juncus effusus</i>	5	No	OBL
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 65	20% of total cover: 26		
Woody Vine Stratum (Plot size: 30)			
1. <i>Smilax bona nox</i>	35	Yes	FAC
2. <i>itis rotundifolia</i>	25	Yes	FAC
3. <i>Smilax glauca</i>	5	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 33	20% of total cover: 13		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 5	x 1 = 5
FACW species 25	x 2 = 50
FAC species 155	x 3 = 465
FACU species 30	x 4 = 120
UPL species 0	x 5 = 0
Column Totals: 215 (A)	640 (B)
Prevalence Index = B/A = 2.98	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 13-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Loamy/Clayey	
2-20	10YR 3/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 7/21/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 14-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.648795 Long: -77.607195 Datum: _____

Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Flag AJ-10.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 14-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>60</u></td> <td>x 3 = <u>180</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>420</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.50</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>60</u>	x 3 = <u>180</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>120</u> (A)	<u>420</u> (B)	Prevalence Index = B/A = <u>3.50</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>60</u>	x 3 = <u>180</u>																			
FACU species <u>60</u>	x 4 = <u>240</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>120</u> (A)	<u>420</u> (B)																			
Prevalence Index = B/A = <u>3.50</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <u>Liriodendron tulipifera</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Li uidambar st raciflua</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <u>teridium a uilinum</u>	<u>45</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>ndropogon irginicus</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>ubus argutus</u>	<u>15</u>	<u>No</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>45</u> 20% of total cover: <u>18</u>																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 14-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Sandy	
4-20	10YR 5/4	100					Sandy	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 14-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.651718 Long: -77.606338 Datum: _____

Soil Map Unit Name: Uchee loamy sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag AH-3.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 14-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	40	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 20	20% of total cover: 8		
Shrub Stratum (Plot size: 30)			
1. <i>hus copallinum</i>	20	Yes	UPL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 30)			
1. <i>Solidago uncea</i>	25	Yes	UPL
2. <i>cnanthemum tenuifolium</i>	25	Yes	FACW
3. <i>ndropogon irginicus</i>	20	Yes	FAC
4. <i>upatorium rotundifolium</i>	15	No	FAC
5. <i>teridium a uilinum</i>	10	No	FACU
6. <i>ubus argutus</i>	5	No	FAC
7. <i>Dichanthelium scoparium</i>	5	No	FACW
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 53	20% of total cover: 21		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Remarks: (If observed, list morphological adaptations below.)			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)	
Total Number of Dominant Species Across All Strata: 5 (B)	
Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)	
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 0 x 1 = 0	
FACW species 30 x 2 = 60	
FAC species 80 x 3 = 240	
FACU species 10 x 4 = 40	
UPL species 45 x 5 = 225	
Column Totals: 165 (A)	565 (B)
Prevalence Index = B/A = 3.42	
Hydrophytic Vegetation Indicators:	
1 - Rapid Test for Hydrophytic Vegetation	
X 2 - Dominance Test is >50%	
3 - Prevalence Index is ≤3.0 ¹	
Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Five Vegetation Strata:	
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
Woody Vine – All woody vines, regardless of height.	
Hydrophytic Vegetation Present? Yes X No	

SOIL

Sampling Point: 14-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	100					Loamy/Clayey	
4-20	10YR 5/3	95	10YR 4/6	5	C	M	Loamy/Clayey	Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 15-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.647067 Long: -77.607474 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
 Hydric Soil Present? Yes _____ No X
 Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area
 within a Wetland? Yes _____ No X

Remarks:
 Upland at Flag AK-4.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

____ Surface Water (A1) ____ Aquatic Fauna (B13)
 ____ High Water Table (A2) ____ Marl Deposits (B15) (LRR U)
 ____ Saturation (A3) ____ Hydrogen Sulfide Odor (C1)
 ____ Water Marks (B1) ____ Oxidized Rhizospheres on Living Roots (C3)
 ____ Sediment Deposits (B2) ____ Presence of Reduced Iron (C4)
 ____ Drift Deposits (B3) ____ Recent Iron Reduction in Tilled Soils (C6)
 ____ Algal Mat or Crust (B4) ____ Thin Muck Surface (C7)
 ____ Iron Deposits (B5) ____ Other (Explain in Remarks)
 ____ Inundation Visible on Aerial Imagery (B7)
 ____ Water-Stained Leaves (B9)

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
 ____ Sparsely Vegetated Concave Surface (B8)
 ____ Drainage Patterns (B10)
 ____ Moss Trim Lines (B16)
 ____ Dry-Season Water Table (C2)
 ____ Crayfish Burrows (C8)
 ____ Saturation Visible on Aerial Imagery (C9)
 ____ Geomorphic Position (D2)
 ____ Shallow Aquitard (D3)
 ____ FAC-Neutral Test (D5)
 ____ Sphagnum Moss (D8) (LRR T, U)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): _____
 Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 15-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	15	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Shrub Stratum (Plot size: 30)			
1. <i>S mphoricarpus orbiculatus</i>	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Herb Stratum (Plot size: 30)			
1. <i>Solidago altissima</i>	60	Yes	FACU
2. <i>teridium a uilinum</i>	30	Yes	FACU
3. <i>Saccharum giganteum</i>	20	No	FACW
4. <i>estuca spp</i>	15	No	_____
5. <i>Dichanthelium scoparium</i>	10	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 68	20% of total cover: 27		
Woody Vine Stratum (Plot size: 30)			
1. <i>alactia olubilis</i>	10	Yes	FACU
2. <i>arthenocissus uin uefolia</i>	5	Yes	FACU
3. <i>assiflora incarnata</i>	5	Yes	UPL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 10	20% of total cover: 4		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 7 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 14.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 30	x 2 = 60
FAC species 15	x 3 = 45
FACU species 110	x 4 = 440
UPL species 5	x 5 = 25
Column Totals: 160 (A)	570 (B)
Prevalence Index = B/A = 3.56	

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:
 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 15-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Loamy/Clayey	
6-20	10YR 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 15-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.647529 Long: -77.607452 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Structure 254/46.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 15-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Sapling Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Li uidambar st raciflua</i>	15	Yes	FAC
2. <i>Inus serrulata</i>	15	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 15	20% of total cover: 6		

Shrub Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>accinium stamineum</i>	15	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		

Herb Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>h nchospora inexpansa</i>	35	Yes	FACW
2. <i>Dichanthelium scoparium</i>	30	Yes	FACW
3. <i>upatorium rotundifolium</i>	15	No	FAC
4. <i>hexia mariana</i>	5	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 43	20% of total cover: 17		

Woody Vine Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 85	x 2 = 170
FAC species 30	x 3 = 90
FACU species 15	x 4 = 60
UPL species 0	x 5 = 0
Column Totals: 130 (A)	320 (B)
Prevalence Index = B/A = 2.46	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

SOIL

Sampling Point: 15-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Loamy/Clayey	
2-8	10YR 4/2	85	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 3/6	5	C	PL		Prominent redox concentrations
8-20	10YR 5/2	80	10YR 5/8	20	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 16-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.639716 Long: -77.609424 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:
Upland above Flag AL-6.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 16-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 65</td> <td>x 4 = 260</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 65 (A)</td> <td>260 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 4.00</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 0	x 2 = 0	FAC species 0	x 3 = 0	FACU species 65	x 4 = 260	UPL species 0	x 5 = 0	Column Totals: 65 (A)	260 (B)	Prevalence Index = B/A = 4.00	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 0	x 2 = 0																			
FAC species 0	x 3 = 0																			
FACU species 65	x 4 = 260																			
UPL species 0	x 5 = 0																			
Column Totals: 65 (A)	260 (B)																			
Prevalence Index = B/A = 4.00																				
50% of total cover: _____		20% of total cover: _____																		
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: 30)																				
1. <i>ol premum procumbens</i>	40	Yes	FACU																	
2. <i>rigeron annuus</i>	15	Yes	FACU																	
3. <i>upatorium capillifolium</i>	5	No	FACU																	
4. <i>araxacum officinale</i>	5	No	FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
65 =Total Cover																				
50% of total cover: 33		20% of total cover: 13																		
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 16-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 4/4	100					Sandy	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: <u>Compaction</u>								
Depth (inches): <u>8</u>					Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 16-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.63556 Long: -77.610041 Datum: _____

Soil Map Unit Name: Woodington fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag AP-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 16-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 50</td> <td>x 5 = 250</td> </tr> <tr> <td>Column Totals: 50 (A)</td> <td>250 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 5.00</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 0	x 2 = 0	FAC species 0	x 3 = 0	FACU species 0	x 4 = 0	UPL species 50	x 5 = 250	Column Totals: 50 (A)	250 (B)	Prevalence Index = B/A = 5.00	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 0	x 2 = 0																			
FAC species 0	x 3 = 0																			
FACU species 0	x 4 = 0																			
UPL species 50	x 5 = 250																			
Column Totals: 50 (A)	250 (B)																			
Prevalence Index = B/A = 5.00																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>I cine max</i>	50	Yes	UPL																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50 =Total Cover																				
50% of total cover: 25 20% of total cover: 10																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

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 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 16-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/1	95	10YR 4/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations
6-20	2.5Y 5/3	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 16-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.635608 Long: -77.610501 Datum: _____

Soil Map Unit Name: Woodington fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag AP-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 16-C

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 20</td> <td>x 1 = 20</td> </tr> <tr> <td>FACW species 35</td> <td>x 2 = 70</td> </tr> <tr> <td>FAC species 40</td> <td>x 3 = 120</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 95 (A)</td> <td>210 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 2.21</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 20	x 1 = 20	FACW species 35	x 2 = 70	FAC species 40	x 3 = 120	FACU species 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 95 (A)	210 (B)	Prevalence Index = B/A = 2.21	
Total % Cover of:	Multiply by:																			
OBL species 20	x 1 = 20																			
FACW species 35	x 2 = 70																			
FAC species 40	x 3 = 120																			
FACU species 0	x 4 = 0																			
UPL species 0	x 5 = 0																			
Column Totals: 95 (A)	210 (B)																			
Prevalence Index = B/A = 2.21																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <i>etula nigra</i>	10	Yes	FACW	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ Problematic Hydrophytic Vegetation ¹ (Explain) _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <i>Li uidambar st raciflua</i>	5	Yes	FAC																	
3. <i>ssa s l atica</i>	5	Yes	FAC																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
20 =Total Cover				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
50% of total cover: 10 20% of total cover: 4																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>Solidago rugosa</i>	30	Yes	FAC																	
2. <i>Juncus effusus</i>	15	Yes	OBL																	
3. <i>Saccharum giganteum</i>	10	No	FACW																	
4. <i>Dichanthelium scoparium</i>	10	No	FACW																	
5. <i>cnanthemum tenuifolium</i>	5	No	FACW																	
6. <i>Ludwigia palustris</i>	5	No	OBL																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
75 =Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
50% of total cover: 38 20% of total cover: 15																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

SOIL

Sampling Point: 16-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/1	80	10YR 5/4	15	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 4/4	5	C	PL		Distinct redox concentrations
6-20	10YR 5/2	85	10YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 17-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.633127 Long: -77.611171 Datum: _____

Soil Map Unit Name: Woodington fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland near Structure 254-45.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 17-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Sapling Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>etula nigra</i>	35	Yes	FACW
2. <i>Li uidambar st raciflua</i>	15	Yes	FAC
3. <i>cer rubrum</i>	5	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 28	20% of total cover: 11		

Shrub Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Herb Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Solidago altissima</i>	35	Yes	FACU
2. <i>Juncus effusus</i>	25	Yes	OBL
3. <i>noclea sensibilis</i>	10	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 35	20% of total cover: 14		

Woody Vine Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Lonicera aponica</i>	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 25	x 1 = 25
FACW species 45	x 2 = 90
FAC species 20	x 3 = 60
FACU species 40	x 4 = 160
UPL species 0	x 5 = 0
Column Totals: 130 (A)	335 (B)
Prevalence Index = B/A = 2.58	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%☒ 3 - Prevalence Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation¹ (Explain)¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes ☒ No ☐

SOIL

Sampling Point: 17-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 4/2	75	10YR 4/4	15	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 3/4	10	C	M		Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 7/21/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 17-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.633498 Long: -77.610957 Datum: _____

Soil Map Unit Name: Woodington fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag AQ-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 17-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	20	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 10	20% of total cover: 4		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Solidago altissima</i>	75	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 38	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30)			
1. <i>itis aesti alis</i>	20	Yes	FACU
2. <i>Campsis radicans</i>	10	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 15	20% of total cover: 6		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 30	x 3 = 90
FACU species 95	x 4 = 380
UPL species 0	x 5 = 0
Column Totals: 125 (A)	470 (B)
Prevalence Index = B/A = 3.76	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is $\leq 3.0^1$

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes _____ No X

SOIL

Sampling Point: 17-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	2.5Y 4/2	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 8/6/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 18-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.622933 Long: -77.613760 Datum: _____

Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:

Upland near Structure 254/61.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 18-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>ubus argutus</i>	45	Yes	FAC
2. <i>Solidago rugosa</i>	30	Yes	FAC
3. <i>cnanthemum tenuifolium</i>	15	No	FACW
4. <i>Dichanthelium scoparium</i>	10	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
100 = Total Cover			
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30)			
1. <i>alactia olubilis</i>	10	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
10 = Total Cover			
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 25	x 2 = 50
FAC species 75	x 3 = 225
FACU species 10	x 4 = 40
UPL species 0	x 5 = 0
Column Totals: 110 (A)	315 (B)
Prevalence Index = B/A = 2.86	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 18-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	100					Loamy/Clayey	
4-20	10YR 4/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 8/6/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 18-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.626448 Long: -77.615885 Datum: _____

Soil Map Unit Name: Mattaponi sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:
Upland at Flag AU-5.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
---	---

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): _____
 Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 18-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	30	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 15	20% of total cover: 6		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>cnantherum tenuifolium</i>	25	Yes	FACW
2. <i>Dichantherium dichotomum</i>	20	Yes	FAC
3. <i>Dichantherium scoparium</i>	15	Yes	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 30	20% of total cover: 12		
Woody Vine Stratum (Plot size: 30)			
1. <i>Campsis radicans</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
 Total Number of Dominant Species Across All Strata: 5 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 40	x 2 = 80
FAC species 55	x 3 = 165
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 95 (A)	245 (B)
Prevalence Index = B/A = 2.58	

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 X 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:
 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 18-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 4/4	100					Loamy/Clayey	
1-20	10YR 5/4	85	5YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 8/6/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 19-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.619646 Long: -77.614610 Datum: _____

Soil Map Unit Name: Appling-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:

Upland at Flag AY-7.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 19-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Quercus rubra</i>	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Dichanthelium scoparium</i>	45	Yes	FACW
2. <i>Solidago rugosa</i>	25	Yes	FAC
3. <i>Upatorium perfoliatum</i>	15	No	FACW
4. <i>Cnanthemum tenuifolium</i>	10	No	FACW
5. <i>Ludwigia palustris</i>	5	No	OBL
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30)			
1. <i>Elsemium semper irens</i>	5	Yes	FAC
2. <i>Ersicaria sagittata</i>	5	Yes	OBL
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 5	20% of total cover: 2		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 10	x 1 = 10
FACW species 70	x 2 = 140
FAC species 30	x 3 = 90
FACU species 5	x 4 = 20
UPL species 0	x 5 = 0
Column Totals: 115 (A)	260 (B)
Prevalence Index = B/A = 2.26	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is $\leq 3.0^1$

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes X No

SOIL

Sampling Point: 19-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3	100					Loamy/Clayey	
4-20	10YR 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 8/6/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 19-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.619892 Long: -77.614496 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag AY-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 19-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>35</u></td> <td>x 1 = <u>35</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>265</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.30</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>35</u>	x 1 = <u>35</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>265</u> (B)	Prevalence Index = B/A = <u>2.30</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>35</u>	x 1 = <u>35</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>115</u> (A)	<u>265</u> (B)																			
Prevalence Index = B/A = <u>2.30</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>Solidago altissima</i>	30	Yes	FACU																	
2. <i>Dichanthelium scoparium</i>	30	Yes	FACW																	
3. <i>hel pteris palustris</i>	25	Yes	OBL																	
4. <i>I mus irginicus</i>	10	No	FAC																	
5. <i>noclea sensibilis</i>	5	No	FACW																	
6. <i>ernonia no eboracensis</i>	5	No	FACW																	
7. <i>Dulichium arundinaceum</i>	5	No	OBL																	
8. <i>Juncus effusus</i>	5	No	OBL																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
115 =Total Cover																				
50% of total cover: 58 20% of total cover: 23																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 19-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/2	90	7.5YR 3/4	10	C	PL	Loamy/Clayey	Distinct redox concentrations
4-20	10YR 6/2	65	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations
			7.5YR 4/6	10	C	M		Prominent redox concentrations
			10YR 4/2	5	D	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 8/7/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 20-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.614303 Long: -77.615885 Datum: _____

Soil Map Unit Name: Appling-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	

Remarks:
Wetland at Line BB.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum Moss (D8) (LRR T, U)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> (includes capillary fringe)				Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 20-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	15	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Juncus effusus</i>	30	Yes	OBL
2. <i>h nchospora inexpansa</i>	20	Yes	FACW
3. <i>oodwardia areolata</i>	20	Yes	OBL
4. <i>ubus argutus</i>	15	No	FAC
5. <i>upatorium perfoliatum</i>	15	No	FACW
6. <i>Dichanthelium scoparium</i>	10	No	FACW
7. <i>hexia mariana</i>	5	No	FACW
8. <i>cnantherum tenuifolium</i>	5	No	FACW
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 60	20% of total cover: 24		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Remarks: (If observed, list morphological adaptations below.)			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)	
Total Number of Dominant Species Across All Strata: 4 (B)	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 50	x 1 = 50
FACW species 55	x 2 = 110
FAC species 30	x 3 = 90
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 135 (A)	250 (B)
Prevalence Index = B/A = 1.85	
Hydrophytic Vegetation Indicators:	
1 - Rapid Test for Hydrophytic Vegetation	
X 2 - Dominance Test is >50%	
X 3 - Prevalence Index is ≤3.0 ¹	
Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Five Vegetation Strata:	
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
Woody Vine – All woody vines, regardless of height.	
Hydrophytic Vegetation Present? Yes X No	

SOIL

Sampling Point: 20-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/1	100					Loamy/Clayey	
3-8	10YR 4/1	90	10YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations
8-20	2.5Y 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 8/7/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 20-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.613786 Long: -77.615986 Datum: _____

Soil Map Unit Name: Appling-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland above Flag BB-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 20-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>ndropogon irginicus</i>	35	Yes	FAC
2. <i>ac era tomentosa</i>	25	Yes	FACU
3. <i>cnantherum tenuifolium</i>	20	Yes	FACW
4. <i>Lespede a cuneata</i>	15	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
95 = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. <i>elsemium semper irens</i>	30	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
30 = Total Cover			
50% of total cover: 15	20% of total cover: 6		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 20	x 2 = 40
FAC species 65	x 3 = 195
FACU species 40	x 4 = 160
UPL species 0	x 5 = 0
Column Totals: 125 (A)	395 (B)
Prevalence Index = B/A = 3.16	

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- 3 - Prevalence Index is $\leq 3.0^1$
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes X No

SOIL

Sampling Point: 20-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Loamy/Clayey	
2-10	10YR 4/3	100					Sandy	
10-20	2.5Y 5/4	100					Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
--	--

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 8/7/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 21-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.608905 Long: -77.617281 Datum: _____

Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag BB-10.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 21-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>inus taeda</i>	15	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Shrub Stratum (Plot size: 30)			
1. <i>lex opaca</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Herb Stratum (Plot size: 30)			
1. <i>h nchospora inexpansa</i>	25	Yes	FACW
2. <i>Dichanthelium scoparium</i>	25	Yes	FACW
3. <i>upatorium perfoliatum</i>	15	Yes	FACW
4. <i>Ludwigia alternifolia</i>	5	No	OBL
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 5	x 1 = 5
FACW species 65	x 2 = 130
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 90 (A)	195 (B)
Prevalence Index = B/A = 2.17	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is $\leq 3.0^1$

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes X No

SOIL

Sampling Point: 21-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 4/2	95	10YR 5/8	5	C	M	Loamy/Clayey	Prominent redox concentrations
10-20	10YR 5/3	75	7.5YR 5/6	25	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 8/7/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 21-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.608619 Long: -77.617337 Datum: _____

Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:

Upland at Flag BE-2.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 21-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>225</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>225</u> (B)	Prevalence Index = B/A = <u>3.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>45</u>	x 3 = <u>135</u>																			
FACU species <u>15</u>	x 4 = <u>60</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>225</u> (B)																			
Prevalence Index = B/A = <u>3.00</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <i>inus taeda</i>	15	Yes	FAC																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
15 =Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>ndropogon irginicus</i>	30	Yes	FAC																	
2. <i>upatorium perfoliatum</i>	15	Yes	FACW																	
3. <i>ac era tomentosa</i>	15	Yes	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
60 =Total Cover																				
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 21-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					Loamy/Clayey	
2-20	2.5Y 5/4	90	10YR 4/2	5	D	M	Loamy/Clayey	
			10YR 4/6	5	C	M		Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 8/7/2020

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 21-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.605018 Long: -77.618320 Datum: _____

Soil Map Unit Name: Dothan loamy sand NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag BG-27.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 21-C

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Quercus nigra</i>	5	Yes	FAC
2. <i>Liquidambar styraciflua</i>	5	Yes	FAC
3. <i>Pinus taeda</i>	5	Yes	FAC
4. <i>Quercus rubra</i>	5	Yes	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 10	20% of total cover: 4		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Urtica perfoliata</i>	20	Yes	FACW
2. <i>Urtica spp</i>	15	Yes	
3. <i>Achillea argutus</i>	10	No	FAC
4. <i>Syntherismastrum spp</i>	10	No	
5. <i>Erigeron spp</i>	10	No	
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 33	20% of total cover: 13		
Woody Vine Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 20	x 2 = 40
FAC species 25	x 3 = 75
FACU species 5	x 4 = 20
UPL species 0	x 5 = 0
Column Totals: 50 (A)	135 (B)
Prevalence Index = B/A = 2.70	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

SOIL

Sampling Point: 21-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)																																																																			
Depth (inches)	Matrix		Redox Features				Texture	Remarks																																																											
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²																																																													
0-4	10YR 3/2	100					Loamy/Clayey																																																												
4-20	10YR 5/4	100					Loamy/Clayey																																																												
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.																																																																			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :																																																																			
<table border="0"> <tr> <td><input type="checkbox"/> Histosol (A1)</td> <td><input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)</td> <td><input type="checkbox"/> 1 cm Muck (A9) (LRR O)</td> </tr> <tr> <td><input type="checkbox"/> Histic Epipedon (A2)</td> <td><input type="checkbox"/> Barrier Islands 1 cm Muck (S12)</td> <td><input type="checkbox"/> 2 cm Muck (A10) (LRR S)</td> </tr> <tr> <td><input type="checkbox"/> Black Histic (A3)</td> <td><input type="checkbox"/> (MLRA 153B, 153D)</td> <td><input type="checkbox"/> Coast Prairie Redox (A16)</td> </tr> <tr> <td><input type="checkbox"/> Hydrogen Sulfide (A4)</td> <td><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)</td> <td><input type="checkbox"/> (outside MLRA 150A)</td> </tr> <tr> <td><input type="checkbox"/> Stratified Layers (A5)</td> <td><input type="checkbox"/> Loamy Gleyed Matrix (F2)</td> <td><input type="checkbox"/> Reduced Vertic (F18)</td> </tr> <tr> <td><input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)</td> <td><input type="checkbox"/> Depleted Matrix (F3)</td> <td><input type="checkbox"/> (outside MLRA 150A, 150B)</td> </tr> <tr> <td><input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)</td> <td><input type="checkbox"/> Redox Dark Surface (F6)</td> <td><input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)</td> </tr> <tr> <td><input type="checkbox"/> Muck Presence (A8) (LRR U)</td> <td><input type="checkbox"/> Depleted Dark Surface (F7)</td> <td><input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)</td> </tr> <tr> <td><input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)</td> <td><input type="checkbox"/> Redox Depressions (F8)</td> <td><input type="checkbox"/> (MLRA 153B)</td> </tr> <tr> <td><input type="checkbox"/> Depleted Below Dark Surface (A11)</td> <td><input type="checkbox"/> Marl (F10) (LRR U)</td> <td><input type="checkbox"/> Red Parent Material (F21)</td> </tr> <tr> <td><input type="checkbox"/> Thick Dark Surface (A12)</td> <td><input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)</td> <td><input type="checkbox"/> Very Shallow Dark Surface (F22)</td> </tr> <tr> <td><input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)</td> <td><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)</td> <td><input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)</td> </tr> <tr> <td><input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)</td> <td><input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)</td> <td><input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)</td> </tr> <tr> <td><input type="checkbox"/> Sandy Gleyed Matrix (S4)</td> <td><input type="checkbox"/> Delta Ochric (F17) (MLRA 151)</td> <td><input type="checkbox"/> (MLRA 153B, 153D)</td> </tr> <tr> <td><input type="checkbox"/> Sandy Redox (S5)</td> <td><input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Stripped Matrix (S6)</td> <td><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)</td> <td><input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Polyvalue Below Surface (S8)</td> <td><input type="checkbox"/> (MLRA 149A, 153C, 153D)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> (LRR S, T, U)</td> <td><input type="checkbox"/> Very Shallow Dark Surface (F22)</td> <td></td> </tr> <tr> <td></td> <td><input type="checkbox"/> (MLRA 138, 152A in FL, 154)</td> <td></td> </tr> </table>								<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)	<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)	<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)	<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)	<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)	<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)	<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 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³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.																																																																			
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes _____ No <u> X </u>																																																													
Remarks:																																																																			

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 9/22/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 22-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.601876 Long: -77.619030 Datum: _____

Soil Map Unit Name: Woodington fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag BJ-2.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) _____ Surface Water (A1) _____ Aquatic Fauna (B13) <u>X</u> High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 22-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 10</td> <td>x 1 = 10</td> </tr> <tr> <td>FACW species 10</td> <td>x 2 = 20</td> </tr> <tr> <td>FAC species 75</td> <td>x 3 = 225</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 95 (A)</td> <td>255 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 2.68</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 10	x 1 = 10	FACW species 10	x 2 = 20	FAC species 75	x 3 = 225	FACU species 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 95 (A)	255 (B)	Prevalence Index = B/A = 2.68	
Total % Cover of:	Multiply by:																			
OBL species 10	x 1 = 10																			
FACW species 10	x 2 = 20																			
FAC species 75	x 3 = 225																			
FACU species 0	x 4 = 0																			
UPL species 0	x 5 = 0																			
Column Totals: 95 (A)	255 (B)																			
Prevalence Index = B/A = 2.68																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <i>Li uidambar st raciflua</i>	15	Yes	FAC																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
15 =Total Cover				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain)																
50% of total cover: 8 20% of total cover: 3																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>anicum irgatum</i>	60	Yes	FAC																	
2. <i>Scirpus c perinus</i>	10	No	OBL																	
3. <i>Carex crinita</i>	5	No	FACW																	
4. <i>hexia mariana</i>	5	No	FACW																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
80 =Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
50% of total cover: 40 20% of total cover: 16																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

SOIL

Sampling Point: 22-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 3/1	95	10YR 4/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations
18-20	10YR 5/1	95	10YR 5/8	5	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input checked="" type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Type: _____								
Depth (inches): _____								
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/22/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 22-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.601584 Long: -77.619030 Datum: _____

Soil Map Unit Name: Mattaponi sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Flag BJ-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 22-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	10	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 5	20% of total cover: 2		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>anicum irgatum</i>	35	Yes	FAC
2. <i>Solidago rugosa</i>	25	Yes	FAC
3. <i>galinis purpurea</i>	10	No	FACW
4. <i>Desmodium paniculatum</i>	5	No	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 38	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30)			
1. <i>Lonicera aponica</i>	5	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 10	x 2 = 20
FAC species 70	x 3 = 210
FACU species 10	x 4 = 40
UPL species 0	x 5 = 0
Column Totals: 90 (A)	270 (B)
Prevalence Index = B/A = 3.00	

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- 3 - Prevalence Index is $\leq 3.0^1$
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes X No

SOIL

Sampling Point: 22-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/3	100					Loamy/Clayey	
2-20	10YR 5/4	95	10YR 4/6	5	C	M	Loamy/Clayey	Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/22/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 22-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.599844 Long: -77.619477 Datum: _____

Soil Map Unit Name: Mattaponi sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at BL-7.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 22-C

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>335</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.94</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>85</u> (A)	<u>335</u> (B)	Prevalence Index = B/A = <u>3.94</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>85</u> (A)	<u>335</u> (B)																			
Prevalence Index = B/A = <u>3.94</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>30</u>)																				
1. <u>Digitaria sanguinalis</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																				
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. <u>Campsis radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: <u>3</u> 20% of total cover: <u>1</u>																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 22-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Loamy/Clayey	
4-20	2.5Y 5/4	95	10YR 5/6	5	C	M	Loamy/Clayey	Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/22/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 23-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.596266 Long: -77.621261 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag BO-3.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>4</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 23-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Dichanthelium scoparium</i>	45	Yes	FACW
2. <i>upatorium perfoliatum</i>	20	Yes	FACW
3. <i>Solidago rugosa</i>	10	No	FAC
4. <i>Chasmanthium laxum</i>	10	No	FACW
5. <i>anicum errucosum</i>	5	No	FACW
6. <i>h nchospora spp</i>	5	No	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. <i>Smilax rotundifolia</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 80	x 2 = 160
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 100 (A)	220 (B)
Prevalence Index = B/A = 2.20	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0¹Problematic Hydrophytic Vegetation¹ (Explain)¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes X No

SOIL

Sampling Point: 23-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 5/2	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
6-20	2.5Y 6/3	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/22/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 23-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 35.596562 Long: -77.621080 Datum: _____

Soil Map Unit Name: Mattaponi sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland at Flag BO-3.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 23-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>hus copallinum</i>	15	Yes	UPL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		
Herb Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Dichanthelium scoparium</i>	45	Yes	FACW
2. <i>ndropogon irginicus</i>	30	Yes	FAC
3. <i>Solidago rugosa</i>	25	Yes	FAC
4. <i>Chr sopsis mariana</i>	15	No	UPL
5. <i>Chamaecrista fasciculata</i>	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 63	20% of total cover: 25		
Woody Vine Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 45	x 2 = 90
FAC species 55	x 3 = 165
FACU species 10	x 4 = 40
UPL species 30	x 5 = 150
Column Totals: 140 (A)	445 (B)
Prevalence Index = B/A = 3.18	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

SOIL

Sampling Point: 23-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Loamy/Clayey	
2-8	10YR 4/3	100					Loamy/Clayey	
8-20	10YR 5/3	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 153B, 153D)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> (outside MLRA 150A)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (outside MLRA 150A, 150B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	<input type="checkbox"/> (MLRA 153B, 153D)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> (LRR S, T, U)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
	<input type="checkbox"/> (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
--	--

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/22/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 23-C

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.592653 Long: -77.622984 Datum: _____

Soil Map Unit Name: Roanoke Loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
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Remarks:
 Upland at Flag BR-8.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 23-C

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	35	Yes	FAC
2. <i>Liriodendron tulipifera</i>	5	No	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 20	20% of total cover: 8		
Shrub Stratum (Plot size: 30)			
1. <i>Sambucus nigra</i>	5	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Herb Stratum (Plot size: 30)			
1. <i>ubus argutus</i>	25	Yes	FAC
2. <i>anicum errucosum</i>	20	Yes	FACW
3. <i>arathel pteris no eboracensis</i>	20	Yes	FAC
4. <i>Dichantheium dichotomum</i>	15	No	FAC
5. <i>Solidago rugosa</i>	10	No	FAC
6. <i>Dichantheium scoparium</i>	5	No	FACW
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. <i>itis rotundifolia</i>	20	Yes	FAC
2. <i>Lonicera aponica</i>	10	Yes	FACU
3. <i>arthenocissus uin uefolia</i>	5	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 18	20% of total cover: 7		
Remarks: (If observed, list morphological adaptations below.)			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)	
Total Number of Dominant Species Across All Strata: 7 (B)	
Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A/B)	
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 30	x 2 = 60
FAC species 125	x 3 = 375
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 175 (A)	515 (B)
Prevalence Index = B/A = 2.94	
Hydrophytic Vegetation Indicators:	
1 - Rapid Test for Hydrophytic Vegetation	
X 2 - Dominance Test is >50%	
3 - Prevalence Index is ≤3.0 ¹	
Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Five Vegetation Strata:	
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
Woody Vine – All woody vines, regardless of height.	
Hydrophytic Vegetation Present? Yes X No	

SOIL

Sampling Point: 23-C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0-8	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations	
8-20	10YR 4/2	85	10YR 4/4	15	C	M	Loamy/Clayey	Distinct redox concentrations	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)						
				<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):									
Type: _____									
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:									

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 24-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4-6

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.586800 Long: -77.625917 Datum: _____

Soil Map Unit Name: Appling-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
---	---

Remarks:
Upland at Flag BT-2.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 24-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Shrub Stratum (Plot size: 30)			
1. <i>hus copallinum</i>	5	Yes	UPL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Herb Stratum (Plot size: 30)			
1. <i>ndropogon irginicus</i>	40	Yes	FAC
2. <i>upatorium perfoliatum</i>	25	Yes	FACW
3. <i>ubus argutus</i>	15	No	FAC
4. <i>Chr sopsis mariana</i>	5	No	UPL
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 43	20% of total cover: 17		
Woody Vine Stratum (Plot size: 30)			
1. <i>Campsis radicans</i>	10	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 25	x 2 = 50
FAC species 70	x 3 = 210
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 105 (A)	310 (B)
Prevalence Index = B/A = 2.95	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 24-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/3	100					Loamy/Clayey	
1-5	10YR 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: <u>Gravel compaction</u>								
Depth (inches): <u>5</u>					Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 25-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.579436 Long: -77.629566 Datum: _____

Soil Map Unit Name: Roanoke Loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag BV-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>18</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 25-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Imus americana</i>	10	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 5	20% of total cover: 2		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>Solidago rugosa</i>	40	Yes	FAC
2. <i>icrostegium imineum</i>	25	Yes	FAC
3. <i>arathel pteris no eboracensis</i>	20	Yes	FAC
4. <i>ernonia no eboracensis</i>	15	No	FACW
5. <i>oehmeria c lindrica</i>	10	No	FACW
6. <i>oodwardia areolata</i>	5	No	OBL
7. <i>Commelina communis</i>	5	No	FAC
8. <i>ersicaria sagittata</i>	5	No	OBL
9. <i>mpatiens capensis</i>	5	No	FACW
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 65	20% of total cover: 26		
Woody Vine Stratum (Plot size: 30)			
1. <i>itis rotundifolia</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Remarks: (If observed, list morphological adaptations below.)			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)	
Total Number of Dominant Species Across All Strata: 5 (B)	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 10	x 1 = 10
FACW species 30	x 2 = 60
FAC species 105	x 3 = 315
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 145 (A)	385 (B)
Prevalence Index = B/A = 2.66	
Hydrophytic Vegetation Indicators:	
1 - Rapid Test for Hydrophytic Vegetation	
X 2 - Dominance Test is >50%	
X 3 - Prevalence Index is ≤3.0 ¹	
Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Five Vegetation Strata:	
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
Woody Vine – All woody vines, regardless of height.	
Hydrophytic Vegetation Present? Yes X No	

SOIL

Sampling Point: 25-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/2	85	7.5YR 4/4	5	C	PL	Loamy/Clayey	Distinct redox concentrations
			10YR 5/6	10	C	M		Prominent redox concentrations
6-20	10YR 4/1	90	10YR 4/4	10	C	PL	Loamy/Clayey	Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 25-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.579913 Long: -77.629364 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:
Upland above Flag BV-4.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)
		<input type="checkbox"/> Sphagnum Moss (D8) (LRR T, U)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)				Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 25-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. <i>Li uidambar st raciflua</i>	10	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 5	20% of total cover: 2		
Shrub Stratum (Plot size: 30)			
1. <i>hus copallinum</i>	5	Yes	UPL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Herb Stratum (Plot size: 30)			
1. <i>ndropogon irginicus</i>	30	Yes	FAC
2. <i>Solidago rugosa</i>	20	Yes	FAC
3. <i>ridens fla us</i>	10	No	FACU
4. <i>Lespede a cuneata</i>	10	No	FACU
5. <i>ubus argutus</i>	5	No	FAC
6. <i>Desmodium paniculatum</i>	5	No	FACU
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30)			
1. <i>Lonicera aponica</i>	15	Yes	FACU
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 8	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 65	x 3 = 195
FACU species 40	x 4 = 160
UPL species 5	x 5 = 25
Column Totals: 110 (A)	380 (B)
Prevalence Index = B/A = 3.45	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 25-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2	100					Loamy/Clayey	
1-5	10YR 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: <u>Gravel compaction</u>								
Depth (inches): <u>5</u>						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 26-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.576903 Long: -77.630833 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Flag BY-5.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 26-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Sapling Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>etula nigra</i>	5	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 3	20% of total cover: 1		

Shrub Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Herb Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>cnanthemum tenuifolium</i>	50	Yes	FACW
2. <i>ndropogon irginicus</i>	25	Yes	FAC
3. <i>ridens fla us</i>	25	Yes	FACU
4. <i>ubus argutus</i>	20	No	FAC
5. <i>upatorium perfoliatum</i>	10	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 65	20% of total cover: 26		

Woody Vine Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Campsis radicans</i>	10	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 5	20% of total cover: 2		

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 65	x 2 = 130
FAC species 55	x 3 = 165
FACU species 25	x 4 = 100
UPL species 0	x 5 = 0
Column Totals: 145 (A)	395 (B)
Prevalence Index = B/A = 2.72	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is $\leq 3.0^1$

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes X No

SOIL

Sampling Point: 26-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/1	100					Loamy/Clayey	
1-20	10YR 4/4	55	5YR 4/6	45	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 27-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.571748 Long: -77.633522 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Structure 254/96.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 27-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 60</td> <td>x 5 = 300</td> </tr> <tr> <td>Column Totals: 60 (A)</td> <td>300 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 5.00</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 0	x 2 = 0	FAC species 0	x 3 = 0	FACU species 0	x 4 = 0	UPL species 60	x 5 = 300	Column Totals: 60 (A)	300 (B)	Prevalence Index = B/A = 5.00	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 0	x 2 = 0																			
FAC species 0	x 3 = 0																			
FACU species 0	x 4 = 0																			
UPL species 60	x 5 = 300																			
Column Totals: 60 (A)	300 (B)																			
Prevalence Index = B/A = 5.00																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>I cine max</i>	60	Yes	UPL																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
60 =Total Cover																				
50% of total cover: 30 20% of total cover: 12																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 27-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/3	100					Loamy/Clayey	
2-20	10YR 5/3	95	10YR 4/6	5	C	M	Loamy/Clayey	Distinct redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)				
<input type="checkbox"/> Stratified Layers (A5)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)				
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)		<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)				
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)		<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)				
<input type="checkbox"/> Muck Presence (A8) (LRR U)		<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)				
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)		<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)		<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)				
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)						
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)		<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)		<input type="checkbox"/> Very Shallow Dark Surface (F22)						
		<input type="checkbox"/> (MLRA 138, 152A in FL, 154)						
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/24/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 28-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.566900 Long: -77.635915 Datum: _____

Soil Map Unit Name: Roanoke Loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Wetland at Flag CB-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) <u>X</u> High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 28-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 105</td> <td>x 2 = 210</td> </tr> <tr> <td>FAC species 60</td> <td>x 3 = 180</td> </tr> <tr> <td>FACU species 5</td> <td>x 4 = 20</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 170 (A)</td> <td>410 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 2.41</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 105	x 2 = 210	FAC species 60	x 3 = 180	FACU species 5	x 4 = 20	UPL species 0	x 5 = 0	Column Totals: 170 (A)	410 (B)	Prevalence Index = B/A = 2.41	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 105	x 2 = 210																			
FAC species 60	x 3 = 180																			
FACU species 5	x 4 = 20																			
UPL species 0	x 5 = 0																			
Column Totals: 170 (A)	410 (B)																			
Prevalence Index = B/A = 2.41																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <i>cer rubrum</i>	10	Yes	FAC																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ 10 = Total Cover																				
50% of total cover: 5 20% of total cover: 2																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>Solidago rugosa</i>	50	Yes	FAC																	
2. <i>rundinaria tecta</i>	35	Yes	FACW																	
3. <i>ndropogon glomeratus</i>	25	No	FACW																	
4. <i>Dichanthelium scoparium</i>	20	No	FACW																	
5. <i>ernonia no eboracensis</i>	15	No	FACW																	
6. <i>upatorium perfoliatum</i>	10	No	FACW																	
7. <i>teridium a uilinum</i>	5	No	FACU																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
_____ 160 = Total Cover																				
50% of total cover: 80 20% of total cover: 32																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: 28-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	2.5Y 4/1	100					Loamy/Clayey	
8-20	2.5Y 6/1	80	10YR 5/8	20	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 28-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.567078 Long: -77.635813 Datum: _____

Soil Map Unit Name: Roanoke loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland above Flag CB-2.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 28-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 55</td> <td>x 2 = 110</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 25</td> <td>x 4 = 100</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 80 (A)</td> <td>210 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 2.63</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 55	x 2 = 110	FAC species 0	x 3 = 0	FACU species 25	x 4 = 100	UPL species 0	x 5 = 0	Column Totals: 80 (A)	210 (B)	Prevalence Index = B/A = 2.63	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 55	x 2 = 110																			
FAC species 0	x 3 = 0																			
FACU species 25	x 4 = 100																			
UPL species 0	x 5 = 0																			
Column Totals: 80 (A)	210 (B)																			
Prevalence Index = B/A = 2.63																				
50% of total cover: _____		20% of total cover: _____																		
Sapling Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: 30)																				
1. <i>ndropogon glomeratus</i>	50	Yes	FACW																	
2. <i>teridium a uilinum</i>	25	Yes	FACU																	
3. <i>Dichantheium scoparium</i>	5	No	FACW																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
80 =Total Cover																				
50% of total cover: 40		20% of total cover: 16																		
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Remarks: (If observed, list morphological adaptations below.)																				

Definitions of Five Vegetation Strata:

 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: 28-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	2.5Y 4/4	100					Loamy/Clayey	
6-20	2.5Y 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greenville Sampling Date: 9/23/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 29-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2-3

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.559376 Long: -77.639640 Datum: _____

Soil Map Unit Name: Mattaponi sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland near Structure 254-104.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 29-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)			
1. <i>hus copallinum</i>	45	Yes	UPL
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
45 = Total Cover			
50% of total cover: 23	20% of total cover: 9		
Herb Stratum (Plot size: 30)			
1. <i>ndropogon irginicus</i>	40	Yes	FAC
2. <i>anicum errucosum</i>	35	Yes	FACW
3. <i>upatorium perfoliatum</i>	10	No	FACW
4. <i>Chamaecrista fasciculata</i>	5	No	FACU
5. <i>Solanum carolinense</i>	5	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
95 = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. <i>Smilax rotundifolia</i>	5	Yes	FAC
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
5 = Total Cover			
50% of total cover: 3	20% of total cover: 1		
Remarks: (If observed, list morphological adaptations below.)			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)	
Total Number of Dominant Species Across All Strata: 4 (B)	
Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)	
Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 45	x 2 = 90
FAC species 45	x 3 = 135
FACU species 10	x 4 = 40
UPL species 45	x 5 = 225
Column Totals: 145 (A)	490 (B)
Prevalence Index = B/A = 3.38	
Hydrophytic Vegetation Indicators:	
1 - Rapid Test for Hydrophytic Vegetation	
X 2 - Dominance Test is >50%	
3 - Prevalence Index is ≤3.0 ¹	
Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Definitions of Five Vegetation Strata:	
Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
Woody Vine – All woody vines, regardless of height.	
Hydrophytic Vegetation Present? Yes X No	

SOIL

Sampling Point: 29-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0-16	2.5Y 4/1	98	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations	
16-20	2.5Y 6/2	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)						
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)						
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)						
				<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):									
Type: _____									
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:									

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/24/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 29-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.557470 Long: -77.640565 Datum: _____

Soil Map Unit Name: Fluvanna-Mattaponi complex NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland above Flag CE-5.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 29-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: 30)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: 30)			
1. <i>teridium a uilinum</i>	65	Yes	FACU
2. <i>Chasmanthium laxum</i>	30	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
95 = Total Cover			
50% of total cover: 48	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30)			
1. <i>itis rotundifolia</i>	15	Yes	FAC
2. <i>Campsis radicans</i>	5	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
20 = Total Cover			
50% of total cover: 10	20% of total cover: 4		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 30	x 2 = 60
FAC species 20	x 3 = 60
FACU species 65	x 4 = 260
UPL species 0	x 5 = 0
Column Totals: 115 (A)	380 (B)
Prevalence Index = B/A = 3.30	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 29-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/3	100					Loamy/Clayey	
2-20	10YR 5/4	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)			<input type="checkbox"/> 1 cm Muck (A9) (LRR O)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)			<input type="checkbox"/> 2 cm Muck (A10) (LRR S)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)			<input type="checkbox"/> (outside MLRA 150A)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> (outside MLRA 150A, 150B)		
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)		
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> (MLRA 153B)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)			<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)			<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)			<input type="checkbox"/> (MLRA 153B, 153D)		
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/24/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 30-A

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.548510 Long: -77.645753 Datum: _____

Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
---	---

Remarks:

Wetland near Flag CF-2.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes X No _____ Depth (inches): 18
 Saturation Present? Yes X No _____ Depth (inches): 4
 (includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 30-A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Sapling Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Li uidambar st raciflua</i>	15	Yes	FAC
2. <i>uercus nigra</i>	15	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 15	20% of total cover: 6		

Shrub Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____		

Herb Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Dichantheium scoparium</i>	30	Yes	FACW
2. <i>Dichantheium dichotomum</i>	30	Yes	FAC
3. <i>arathel pteris no eboracensis</i>	20	Yes	FAC
4. <i>ernonia no eboracensis</i>	15	No	FACW
5. <i>icrostegium imineum</i>	15	No	FAC
6. <i>C perus strigosus</i>	5	No	FACW
7. <i>ersicaria sagittata</i>	5	No	OBL
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 60	20% of total cover: 24		

Woody Vine Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>prios americana</i>	25	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: 13	20% of total cover: 5		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
 Total Number of Dominant Species Across All Strata: 6 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 5	x 1 = 5
FACW species 75	x 2 = 150
FAC species 95	x 3 = 285
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 175 (A)	440 (B)
Prevalence Index = B/A = 2.51	

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☒ 3 - Prevalence Index is ≤3.0¹
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:
 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
 Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
 Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No _____

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 30-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/1	85	10YR 3/6	15	C	PL	Loamy/Clayey	Prominent redox concentrations
5-10	10YR 5/1	80	10YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations
10-15	2.5Y 6/2	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)				<input type="checkbox"/> 1 cm Muck (A9) (LRR O)	
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)				<input type="checkbox"/> 2 cm Muck (A10) (LRR S)	
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)				<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)				<input type="checkbox"/> (outside MLRA 150A)	
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)				<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input checked="" type="checkbox"/> Depleted Matrix (F3)				<input type="checkbox"/> (outside MLRA 150A, 150B)	
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)				<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)	
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)				<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)				<input type="checkbox"/> (MLRA 153B)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)				<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				<input type="checkbox"/> (MLRA 153B, 153D)	
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
<input type="checkbox"/> (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild City/County: Greensville Sampling Date: 9/24/20

Applicant/Owner: Dominion Energy Virginia State: VA Sampling Point: 30-B

Investigator(s): S. Kupiec Section, Township, Range: _____

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-4

Subregion (LRR or MLRA): LRR P, MLRA 133A Lat: 36.548924 Long: -77.644986 Datum: _____

Soil Map Unit Name: Craven clay loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
---	---

Remarks:

Upland at Flag CF-2.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
---	---

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 30-B

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 30</td> <td>x 2 = 60</td> </tr> <tr> <td>FAC species 80</td> <td>x 3 = 240</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 110 (A)</td> <td>300 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = 2.73</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species 0	x 1 = 0	FACW species 30	x 2 = 60	FAC species 80	x 3 = 240	FACU species 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 110 (A)	300 (B)	Prevalence Index = B/A = 2.73	
Total % Cover of:	Multiply by:																			
OBL species 0	x 1 = 0																			
FACW species 30	x 2 = 60																			
FAC species 80	x 3 = 240																			
FACU species 0	x 4 = 0																			
UPL species 0	x 5 = 0																			
Column Totals: 110 (A)	300 (B)																			
Prevalence Index = B/A = 2.73																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling Stratum (Plot size: 30)																				
1. <i>Li uidambar st raciflua</i>	30	Yes	FAC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <i>inus taeda</i>	10	Yes	FAC																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
40 =Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
50% of total cover: 20 20% of total cover: 8																				
Shrub Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
=Total Cover				Hydrophytic Vegetation Present? Yes X No _____																
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: 30)																				
1. <i>ndropogon irginicus</i>	30	Yes	FAC																	
2. <i>upatorium perfoliatum</i>	15	Yes	FACW																	
3. <i>Chasmanthium laxum</i>	15	Yes	FACW																	
4. <i>Solidago rugosa</i>	5	No	FAC																	
5. <i>ubus argutus</i>	5	No	FAC																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
70 =Total Cover																				
50% of total cover: 35 20% of total cover: 14																				
Woody Vine Stratum (Plot size: 30)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (If observed, list morphological adaptations below.)																				

SOIL

Sampling Point: 30-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2	100					Loamy/Clayey	
1-20	10YR 4/2	100					Loamy/Clayey	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)		<input type="checkbox"/> 1 cm Muck (A9) (LRR O)			
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Barrier Islands 1 cm Muck (S12)		<input type="checkbox"/> 2 cm Muck (A10) (LRR S)			
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> (MLRA 153B, 153D)		<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)		<input type="checkbox"/> (outside MLRA 150A)			
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)			<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> (outside MLRA 150A, 150B)			
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)			<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, T)			
<input type="checkbox"/> Muck Presence (A8) (LRR U)			<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)			<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> (MLRA 153B)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Marl (F10) (LRR U)		<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)		<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)		<input type="checkbox"/> (outside MLRA 138, 152A in FL, 154)			
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)			<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)		<input type="checkbox"/> Barrier Islands Low Chroma Matrix (TS7)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)		<input type="checkbox"/> (MLRA 153B, 153D)			
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)		<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)					
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/> Anomalous Bright Floodplain Soils (F20)					
<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> (MLRA 149A, 153C, 153D)					
<input type="checkbox"/> (LRR S, T, U)			<input type="checkbox"/> Very Shallow Dark Surface (F22)					
			<input type="checkbox"/> (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes _____ No <u>X</u>			
Remarks:								

APPENDIX C

Jurisdictional Determination Request Form and Site Information Summary Sheet



NORFOLK DISTRICT REGULATORY OFFICE PRE-APPLICATION AND/OR JURISDICTIONAL WATERS DETERMINATION REQUEST FORM

This form is used when you want to determine if areas on your property fall under regulatory requirements of the U.S. Army Corps of Engineers (USACE). Please supply the following information and supporting documents described below. This form can be filled out online and/or printed and then mailed, faxed, or e-mailed to the Norfolk District. Submitting this request authorizes the US Army Corps of Engineers to field inspect the property site, if necessary, to help in the determination process. **THIS FORM MUST BE SIGNED BY THE PROPERTY OWNER TO BE CONSIDERED A FORMAL REQUEST.**

The printed form and supporting documents should be mailed to:

U.S. Army Corps of Engineers, Norfolk District
Regulatory Office
803 Front Street
Norfolk, Virginia 23510-1096

Or faxed to (757) 201-7678

Or sent via e-mail to: CENAO.REG_ROD@usace.army.mil

Additional information on the Regulatory Program is available on our website at:
<http://www.nao.usace.army.mil/>

Please contact us at 757-201-7652 if you need any assistance with filling out this form.

Location and Information about Property to be subject to a Jurisdictional Determination:

1. Date of Request: 10/21/2020
2. Project Name: TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
3. City or County where property located: Greenville
4. Address of property and directions (attach a map of the property location and a copy of the property plat): Please refer to Preliminary JD request cover letter for the project description and directions. Location and vicinity maps are also included in the submittal package.
5. Coordinates of property (if known): Start: 36.718542 -77.585233 End: 36.545257 -77.646638
6. Size of property in acres: 378.5
7. Tax Parcel Number / GPIN (if available):
8. Name of Nearest Waterway: Meherrin Rvr., Fountains Ck., Cattail Ck., Massie Brnch., Collier Brnch.

7. Brief Description of Proposed Activity, Reason for Preapplication Request, and/or Reason for Jurisdictional Waters Determination Request:
Environmental constraints analysis for transmission line rebuild.

8. Has a wetland delineation/determination been completed by a consultant or the Corps on the property previously? ☐ YES ☐ NO ☒ UNKNOWN

If yes, please provide the name of the consultant and/or Corps staff and Corps permit number, if available:

Property Owner Contact Information:

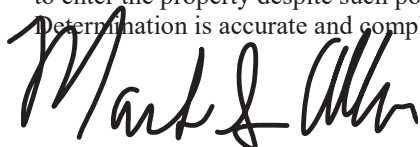
Property Owner Name: Dominion Energy c/o Mark Allen
Mailing Address: 10900 Nuckols Road, 4th Floor
City: State: Zip: Glen Allen, Virginia 23060
Daytime Telephone: (804) 257-4711
E-mail Address: Mark.Allen@dominionenergy.com

If the person requesting the Jurisdictional Determination is **NOT** the Property Owner, please also supply the Requestor's contact information here:

Requestor Name: Rachel Studebaker - Dominion Energy Environmental Services
Mailing Address: 120 Tredegar Street
City: State: Zip: Richmond, Virginia 23219
Daytime Telephone: (804) 217-1847
E-mail Address: Rachel.M.Studebaker@dominionenergy.com

Additionally, if you have any of the following information, please include it with your request: wetland delineation map, other relevant maps, drain tile survey, topographic survey, and/or site photographs.

CERTIFICATION: I am hereby requesting a preapplication consultation or jurisdictional waters and/or wetlands determination from the U.S. Army Corps of Engineers, for the property(ies) I have described herein. I agree to allow the duly authorized representatives of the Norfolk District Corps of Engineers and other regulatory or advisory agencies to enter upon the premises of the project site at reasonable times to evaluate inspect and photograph site conditions. This consent to enter the property is superior to, takes precedence over, and waives any communication to the contrary. For example, if the property is posted as "no trespassing" this consent specifically supercedes and waives that prohibition and grants permission to enter the property despite such posting. I hereby certify that the information contained in the Request for a Jurisdictional Determination is accurate and complete:


Requestor's Signature

10/23/2020
Date

Wetland Delineation Report Site Information Summary
TL 254/2201 Clubhouse – Lakeview 230 kV Rebuild
(378.5)
Greensville County, Virginia

Date

October 21, 2020

Latitude/ Longitude in Decimal Degrees using coordinate plane (NAD 1983)

Start: 36.718542 -77.585233 End: 36.545257 -77.646638

Has a previous delineation or JD been performed? If so please provide USACE Project Number:

Unknown

Hydrologic Unit Code (HUC)

03010204-Meherrin; 0301020406-Meherrin River-Reedy Creek; 030102040603-Meherrin River-Douglas Run
03010204-Meherrin; 0301020407-Fountains Creek; 030102040703-Fountains Creek-Cattail Creek
03010204-Meherrin; 0301020407-Fountains Creek; 030102040704-Beaverpond Creek

USGS Topographic Sheet

Emporia, Virginia (2019)
Skippers, Virginia (2019)
Barley, Virginia (2019)

Nearest Waterbody

The project area is within the Meherrin River, Fountains Creek, Cattail Creek, Massie Branch, and Collier Branch drainage basins.

Delineation Methods

U.S. Army Corps of Engineers 1987 Wetland Delineation Manual in conjunction with the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (version 2.0) and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) were used to complete this delineation. The 2018 National Wetland Plant List was also used to conduct this delineation.

On-Site Investigation Date

Wetland delineation was conducted June to September 2020.

Wetland Delineation Plan

The proposed wetland boundaries and Data Sampling Point locations are depicted on the plans entitled “Wetland Delineation Map” prepared by C2 Environmental, Inc. (C2 Env) on October 21, 2020.

Wetland Investigation Results

Wetlands: A total of approximately 77.5 acres of wetlands were identified by C2 Env within the project area. This includes 42.0 acres of palustrine emergent (PEM) wetlands, 4.5 acres of palustrine scrub-shrub wetlands (PSS), and 31.0 acres of palustrine forested (PFO) wetlands. A total of 11,004 linear feet (4.2 acres) of stream channel was identified within the project area. This includes 3,847 linear feet (0.5 acres) of intermittent (R4) stream channel, 5,412 linear feet (1.1 acres) of upper perennial (R3) stream channel, and 1,745 linear feet (2.6 acres) of lower perennial (R2) stream channel. A total 72 linear feet (244 square feet) of jurisdictional ditch was identified within the project area. A total of 0.8 acres of palustrine unconsolidated bottom (PUB) was identified within the project area. Representative wetland data points include data points 4-B, 5-A, 7-A, 7-C, 9-A, 12-C, 13-A, 15-B, 16-C, 17-A, 19-B, 20-A, 21-A, 22-A, 23-A, 25-A, 28-A, and 30-A.

Water bodies onsite identified as Section 10: N/A

Uplands: A total of approximately 296.0 acres of uplands were identified during this investigation. The majority of uplands consisted of existing transmission line right of way, agricultural land, and a forested community type. Representative upland data points include data points 4-A, 5-B, 5-C, 6-A, 6-B, 7-B, 7-D, 8-A, 9-B, 10-A, 11-A, 11-B, 12-A, 12-B, 13-B, 13-C, 14-A, 14-B, 15-A, 16-A, 16-B, 17-B, 18-A, 18-B, 19-A, 20-B, 21-B, 21-C, 22-B, 22-C, 23-B, 23-C, 24-A, 25-B, 26-A, 27-A, 28-B, 29-A, 29-B, and 30-B.

100-Year Floodplains

As depicted on the Federal Emergency Management Agency's (FEMA) on-line Flood Insurance Rate Maps #51081C0154C, 51081C0175C, 51081C0300C, and 51081C0275C, effective July 7, 2009, portions of the project fall within Zone A of the 100-year floodplain.

National Wetlands Inventory

The online NWI wetlands mapper indicates the presence of freshwater forested/shrub wetlands, freshwater emergent wetlands, intermittent streams, unknown perennial streams, a lower perennial stream, and a lake within the project area.

USDA Soil Survey

The NRCS Web Soil Survey for the County of Greensville County, Virginia indicates the site is primarily underlain by Craven clay loam, Emporia loamy fine sand, Fluvanna clay loam, Fluvanna-Mattaponi complex, Mattaponi sandy loam, Roanoke loam, Uchee loamy sand, and Woodington fine sandy loam. Of these Roanoke loam and Woodington fine sandy loam are classified as predominantly hydric in Greensville County, Virginia.

Waters Table:

The ORM Aquatic Resources Spreadsheet can be provided upon request following the onsite confirmation meeting with the Corps.

APPENDIX D

Existing Condition Photographs



EXISTING CONDITION PHOTOGRAPHS

TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild

LOCATION: Greensville County, Virginia
Start: 36.718542°, -77.585233° End: 36.545257°, -77.646638°
APPLICANT: Dominion Energy Virginia
DATE TAKEN: June-September, 2020
C2 ENV JOB: 0115
CREDIT: Scott Kupiec, C2 Environmental Inc.

PHOTO 1P

Orientation:
Northeast



Description: A representative view of a wetland at Line A.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 2 of 15

PHOTO 2P

Orientation:
Southwest



Description: A representative view of a wetland at Line D.

PHOTO 3P

Orientation:
Southwest



Description: A representative view of an upland at Data Point 6-A.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 3 of 15

PHOTO 4P

Orientation:
Southwest



Description: A representative view of a wetland at Line I.

PHOTO 5P

Orientation:
Southwest



Description: A representative view of open water within a wetland near Structure 254/19.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 4 of 15

PHOTO 6P

Orientation:
Southwest



Description: A representative view of an upland near Structure 254/24.

PHOTO 7P

Orientation:
Northeast



Description: A representative view of a wetland at Line Q.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 5 of 15

PHOTO 8P

Orientation:
Northeast



Description: A representative view of an upland at Data Point 11-B.

PHOTO 9P

Orientation:
Southwest



Description: A representative view of a lower perennial stream at Line W.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 6 of 15

PHOTO 10P

Orientation:
Northeast



Description: A representative view of an upland at Data Point 13-C.

PHOTO 11P

Orientation:
Southwest



Description: A representative view of a wetland at Line AG.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 7 of 15

PHOTO 12P

Orientation:
Southwest



Description: A representative view of an upland adjacent to Brink Road.

PHOTO 13P

Orientation:
Southwest



Description: A representative view of a pond at Structure 254/50.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 8 of 15

PHOTO 14P

Orientation:
Northeast



Description: A representative view of an agricultural field near Structure 254/54.

PHOTO 15P

Orientation:
Southwest



Description: A representative view of an upland at Data Point 18-A.

PHOTO 16P

Orientation:
West



Description: A representative view of a stream/wetland complex at Line AX.

PHOTO 17P

Orientation:
Northeast



Description: A representative view of an upland at Data Point 19-A.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 10 of 15

PHOTO 18P

Orientation:
Northwest



Description: A representative view of a wetland at Line BB.

PHOTO 19P

Orientation:
Northeast



Description: A representative view of an existing road at Line BB.

PHOTO 20P

Orientation:
West



Description: A representative view of a wetland at Line BJ.

PHOTO 21P

Orientation:
Southwest



Description: A representative view of a stream/wetland complex at Line BP.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 12 of 15

PHOTO 22P

Orientation:
Southwest



Description: A representative view of a fallow agricultural field at Structure 254/85.

PHOTO 23P

Orientation:
West



Description: A representative view of a wetland at Line BV.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 13 of 15

PHOTO 24P

Orientation:
West



Description: A representative view of a stream/wetland complex at Line BY.

PHOTO 25P

Orientation:
Northeast



Description: A representative view of an agricultural field at Data Point 27-A.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 14 of 15

PHOTO 26P

Orientation:
Northeast



Description: A representative view of an upland at Data Point 28-B.

PHOTO 27P

Orientation:
Southwest



Description: A representative view of an upland at Data Point 29-B.

Existing Condition Photographs
TL 254/2201 Clubhouse - Lakeview 230 kV Rebuild
Page 15 of 15

PHOTO 28P

Orientation:
Northeast



Description: A representative view of an agricultural field near Structure 254/108.

PHOTO 29P

Orientation:
South



Description: A representative view of a wetland near Structure 254/112.



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

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 Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230 kV Virginia Rebuild Project
Greensville County, 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 Energy Virginia is proposing the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project which would rebuild existing overhead transmission lines located in Greensville County, Virginia. The approximate 12.5-mile Rebuild Project is located entirely within existing transmission line right-of-way or on Company-owned property and no additional right-of-way is necessary. The Rebuild Project will replace aging infrastructure that is at the end of its service life, thereby continuing to enable the Company to maintain safe and reliable electric transmission service to its customers.

Summary of Findings

C2 Environmental delineated wetlands and other waters of the United States using the Routine Determination Method as outlined in the 1987 Corps of Engineers Wetland Delineation Manual and methods described in the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). The limits of these features are provided below in Table 1. The limits of wetlands of other waters of the United States will be submitted to the U.S. Army Corps of Engineers for confirmation.

Table 1. Jurisdictional Features Identified within the ROW

PFO (Acres)	PSS (Acres)	PEM (Acres)	Open Waters (Acres)	Stream Channels (R2) Acres (LF)	Stream Channels (R3) Acres (LF)	Stream Channels (R4) Acres (LF)	Jurisdictional Ditch Acres (LF)
6.3	1.8	39.0	0.5	1.0 (243)	0.6 (3,071)	0.3 (1,919)	0.003 (21)

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 October 5, 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.henichack@deq.virginia.gov.

Sincerely,

Michelle Henichack

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

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



MEMORANDUM

To: Rachel M. Studebaker, Dominion Energy Virginia
From: Christine F. Conrad, PhD, C2 Environmental, Inc.
Date: October 5, 2020
Project: Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
Reference: Solid and Hazardous Waste Review

On behalf of Dominion Energy Virginia (Dominion), C2 Environmental, Inc. (C2Env) has completed online database searches for federal and state threatened and endangered species for the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project. The proposed project includes the rebuild of approximately 12.5 miles of existing 230kV overhead electric transmission line. The project will take place within the existing, cleared transmission line right-of-way (ROW) beginning at the Clubhouse Substation, to the dry Bread Substation, and terminating at Virginia state line, within Greenville County, Virginia.

Publicly available data from the Environmental Protection Agency (EPA) Facility Registry System (FRS) were obtained, which provide 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 the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Superfund; Resource Conservation and Recovery Act (RCRA); and brownfield sites. Comparison with the EPA's NEPAAssist Tool resulted in identifying four registered RCRA facilities present within 0.5-mile of the project, described in Table 1 below.

Table 1. Registered RCRA Facilities within 0.5 mile of the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project

Name	ID	Latitude	Longitude	Distance From Project Centerline (miles)
Sunoco Service Station	VAD000759092	36.711111	-77.598056	0.48
Emporia Machine and Welding	VAD023720154	36.711111	-77.598056	0.48
Sadler Chevrolet	VAD023720568	36.711111	-77.598056	0.48
Sunoco Service Station	VAD000759084	36.711111	-77.598056	0.48

The Virginia Department of Environmental Quality (DEQ) records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites, petroleum releases, and registered tank facilities within 0.5-mile of the proposed project. No solid waste management facilities, Voluntary Remediation Program sites, or petroleum release sites were identified within 0.5 mile of the project area. One registered tank facility was identified within the 0.5-mile search radius of the proposed project and is described in Table 2 below.

Table 2. Registered Tank Facilities within 0.5 mile of the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230kV Virginia Rebuild Project

Name	ID	Number and Type	Latitude	Longitude	Distance From Project Centerline (miles)
Edward Lee	4018496	1 Inactive UST	36.68155	-77.60572	0.35

In conclusion, there are four RCRA sites and one registered tank site located within a 0.5-mile radius of the project site. None of the sites are located within the project ROW. No EPA registered CERCLA/Superfund sites or Brownfield sites, no solid waste permits, Virginia Voluntary Remediation Program sites, or petroleum releases are located within 0.5-mile of the project area.



MEMORANDUM

TO: Rachel M. Studebaker, Dominion Energy Virginia
FROM: Christine F. Conrad, Ph.D., C2 Environmental, Inc.
DATE: October 5, 2020
PROJECT: Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project
REFERENCE: Threatened and Endangered Species Review
JOB NO: 0115

On behalf of Dominion Energy Virginia (Dominion), C2 Environmental, Inc. (C2Env) has completed online database searches for federal and state threatened and endangered species for the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project. The proposed project includes the rebuild of approximately 12.5 miles of existing 230kV overhead electric transmission line. The project will take place within the existing, cleared transmission line right-of-way (ROW) beginning at the Clubhouse Substation, to the dry Bread Substation, and terminating at Virginia state line, within Greensville County, Virginia. The online database searches included the following:

- U.S. Fish & Wildlife (USFWS) Information, Planning, and Conservation (IPaC)
- USFWS Critical Habitat for Threatened and Endangered Species Mapper
- USFWS Bald Eagle Concentration Area Map
- Center for Conservation Biology (CCB) Eagle Nest Locator for Virginia
- Department of Wildlife Resources (DWR) 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)
- DWR Little Brown Bat (MYLU) and Tri-colored Bat (PESU) Habitat Application

Original database searches were completed on June 3, 2020.

RESULTS

Species identified by the database searches to have a confirmed or potential presence within the project vicinity are discussed below in Table 1.

Table 1. Database Search Results

Species	Status*	Database	Results
Northern long-eared bat (<i>Myotis septentrionalis</i>)	FT, ST	USFWS-IPaC, DWR-NLEB Winter Habitat and Roost Tree Map	No known hibernacula or summer roosts are identified in the vicinity of the project.
Roanoke logperch (<i>Percina rex</i>)	FE, SE	USFWS-IPaC	Noted as potentially occurring in the vicinity of the project.
Atlantic pigtoe (<i>Fusconaia masoni</i>)	(P)FT, ST	USFWS-IPaC	Noted as potentially occurring in the vicinity of the project. The project is not within the federal proposed critical habitat for this species.
Yellow lance (<i>Elliptio lanceolata</i>)	FT	USFWS-IPaC	Noted as potentially occurring in the vicinity of the project. The project is not within the proposed critical habitat.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	ST	VAFWIS	Observed within the vicinity of the project.
Green floater (<i>Lasmigona subviridis</i>)	ST	VAFWIS	Observed within the vicinity of the project.
Reclining bulrush (<i>Scirpus flaccidifolius</i>)	ST	DCR-NHDE	Noted as potentially occurring in the vicinity of the project.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	FP	CCB Eagle Nest Locator; USFWS Eagle Concentration Areas	No bald eagle nests are located within 660 feet of the project area. No bald eagle concentration areas are present within the project vicinity.

*FT: federally threatened, FE: federally endangered, FP: federally protected, ST: state threatened, SE: state endangered, (P) Proposed

CONCLUSIONS

The following conclusions are based upon the proposed scope of work, as described by Dominion. The proposed scope of work assumes construction access will avoid stream crossings where practical or use crane mats to span stream crossings, and erosion and sediment controls will be used as appropriate throughout the project to protect wetlands and water resources. The scope of work assumes the work will occur within the existing, cleared and maintained ROW, although limited clearing may be required within the existing ROW easement and construction access roads.

The project is located within the White Nose Syndrome Zone for the federal and state threatened northern long-eared bat (NLEB). The NLEB has been identified by USFWS and DWR as potentially occurring within the proposed project area. However, DWR records

indicate that no known hibernacula or maternity roost trees occur within the vicinity. The proposed project will occur within an existing maintained ROW and tree removal is expected to be limited to danger trees and select limbing. The project is expected to rely upon the Programmatic Biological Opinion for the Final 4(d) Rule on the NLEB with no required time of year restriction for tree removal.

The federal and state endangered Roanoke logperch has been identified by USFWS as potentially occurring within the vicinity of the project. This species is typically found in small or medium river with warm, clear water. It is found in riffles, runs, and pools with sandy or rocky bottoms and is generally intolerant of heavy siltation. No impacts to this species are expected as no instream work is anticipated in conjunction with the project.

The state and proposed federally threatened Atlantic pigtoe has been identified by USFWS as potentially occurring within the vicinity of the project. This species typically occurs within high quality riverine habitats. It prefers coarse substrates such as sand and gravel following riffles within the stream channel. No impacts to this species are expected as no instream work is anticipated in conjunction with the project.

The federally threatened yellow lance has been identified by USFWS as potentially occurring within the vicinity of the project. This species generally prefers sandy substrates and can be found in main channels of stream channels as well as small stream channels. No impacts to this species are expected as no instream work is anticipated in conjunction with the project.

DWR recorded observations of the state threatened loggerhead shrike within the project vicinity. This species prefers open habitat, such as pastures with scattered shrubs and trees, but can also be found in open, forested habitat. The presence of perches used for hunting are an essential part of their habitat. The project is not expected to adversely affect this species as no additional clearing of right-of-way is required.

DWR recorded observations of the state threatened green floater within the project area. This species prefers smaller streams with sandy or gravel bottoms. It can occur in pools or calm waters, lacking strong currents. It prefers shallow water but is more likely to occur in streams not prone to drying. No impacts to this species are expected as no instream work is anticipated in conjunction with the project.

The state threatened reclining bulrush has been identified by DCR as potentially occurring within the project area. This species occurs in wetlands, particularly in clearings or cut-over forests and along roadsides. Timber mats will be used for access through wetlands to minimize ground disturbance and potential impacts to this species.

The CCB Bald Eagle Nest Locator identified no bald eagle nests within 660-feet of the project. The closest identified nest to the project is located approximately 9.14-miles from the project area. The USFWS Bald Eagle Concentration Area Map additionally confirms that the project is not located within a designated Eagle Concentration Area.

The complete results from the database searches are attached for your reference. If you have any questions, please contact me at your earliest convenience.

ATTACHMENTS

USFWS-IPaC Database Search Results

USFWS Critical Habitat for Threatened and Endangered Species Mapper Database Search Results

USFWS Bald Eagle Concentration Area Database Search Results

CCB Bald Eagle Nest Locator for Virginia Database Search Results

VAFWIS-DWR Database Search Results

DWR-NLEB Winter Habitat and Roost Tree Map Database Search Results

DCR - NHDE Database Search Results

DWR-MYLU and PESU Habitat Application Database Search Results

ATTACHMENT

USFWS-IPaC



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-4114
Event Code: 05E2VA00-2020-E-11591
Project Name: TL 254 Clubhouse - Lakeview Rebuild

June 03, 2020

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). 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

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Raleigh Ecological Services Field Office

Post Office Box 33726
Raleigh, NC 27636-3726
(919) 856-4520

Project Summary

Consultation Code: 05E2VA00-2020-SLI-4114

Event Code: 05E2VA00-2020-E-11591

Project Name: TL 254 Clubhouse - Lakeview Rebuild

Project Type: TRANSMISSION LINE

Project Description: Transmission Line

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/36.631844931791434N77.6113605424625W>



Counties: Northampton, NC | Greenville, VA

Endangered Species Act Species

There is a total of 4 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 Fisheries¹, 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: https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Roanoke Logperch <i>Percina rex</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1134	Endangered

Clams

NAME	STATUS
Atlantic Pigtoe <i>Fusconaia masoni</i> There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5164	Proposed Threatened
Yellow Lance <i>Elliptio lanceolata</i> There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4511	Threatened

Critical habitats

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

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.

ATTACHMENT

USFWS Critical Habitat for Threatened and Endangered Species

My Map

USFWS_Critical_Habitat -
Critical Habitat - Linear
Features - Final



USFWS_Critical_Habitat -
Critical Habitat - Polygon
Features - Final



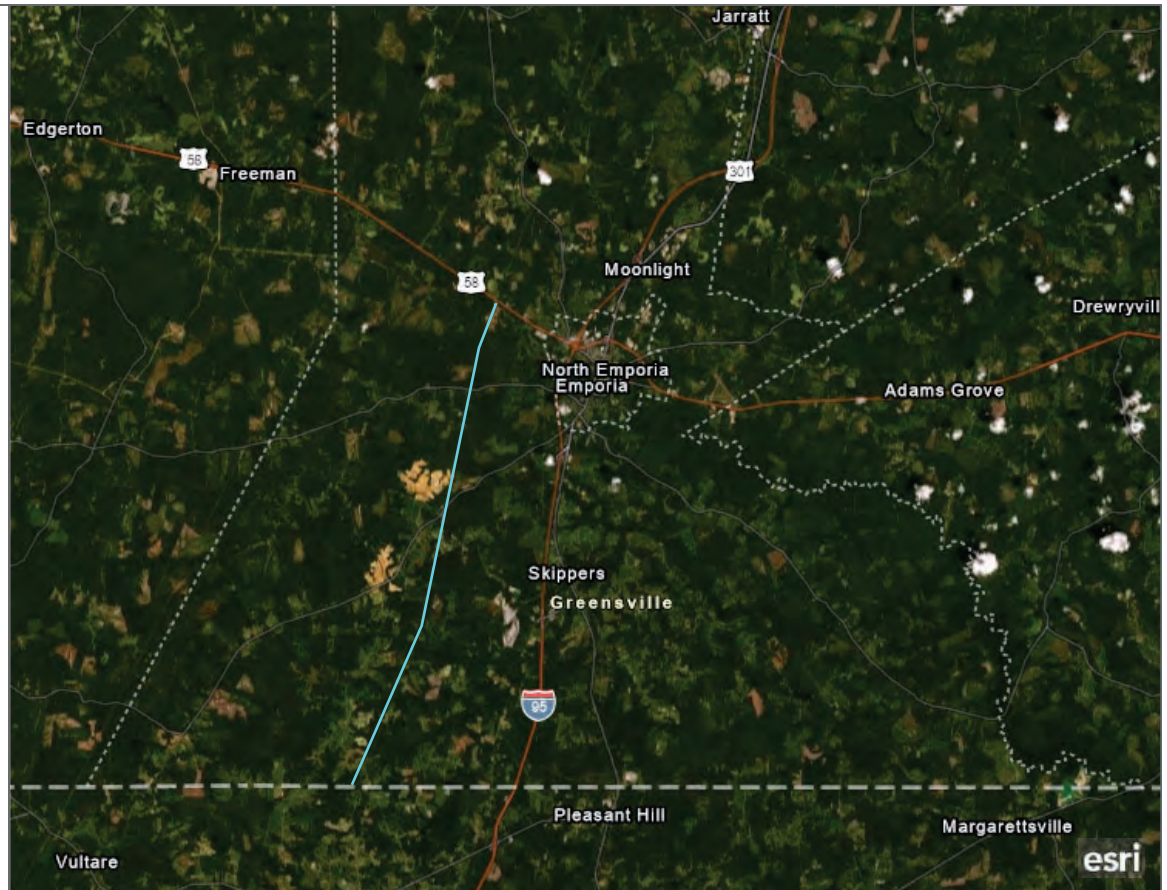
USFWS_Critical_Habitat -
Critical Habitat - Linear
Features - Proposed



USFWS_Critical_Habitat -
Critical Habitat - Polygon
Features - Proposed



Approximate Project
Location



Earthstar Geographics | VITA, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

ATTACHMENT

USFWS Bald Eagle Concentration Area



1:577,791

June 3, 2020



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

ATTACHMENT

CCB Bald Eagle Nest Locator



CCB Mapping Portal



Layers: VA Eagle Nest Locator, VA Eagle Nest Buffers

Map Center [longitude, latitude]: [-77.58785247802734, 36.65409778131013]

Map Link:

https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&zoom=12&lat=36.65409778131013&lng=-77.58785247802734&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=World+Imagery+%28ESRI%29

Report Generated On: 06/03/2020

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the [Data Use Agreement](#) to ensure compliance with our data use policies. For additional data access questions, view our [Data Distribution Policy](#), or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Report generated by [The Center for Conservation Biology Mapping Portal](#).

To learn more about CCB visit ccbbirds.org or contact us at info@ccbbirds.org

ATTACHMENT

DWR - VAFWIS

VaFWIS Search Report

Compiled on 6/3/2020, 8:39:52 AM

[Help](#)

Known or likely to occur within a **2 mile buffer around line beginning 36,35,51.7 -77,37,30.2**
in **081 Greensville County, 595 Emporia City, VA**

[View Map of Site Location](#)

473 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 25) (25 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
040228	FESE	Ia	Woodpecker, red-cockaded	Picoides borealis		BOVA
010214	FESE	IIa	Logperch, Roanoke	Percina rex	Potential	BOVA,Habitat,HU6
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata		HU6
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050034	SE	Ia	Bat, Rafinesque's eastern big-eared	Corynorhinus rafinesquii macrotis		BOVA,HU6
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus	Yes	BOVA,BBA,SppObs,HU6
040385	ST	Ia	Sparrow, Bachman's	Peucaea aestivalis		BOVA,HU6
060173	FPST	Ia	Pigtoe, Atlantic	Fusconaia masoni	Potential	BOVA,Habitat,HU6
020002	ST	IIa	Treefrog, barking	Hyla gratiosa		BOVA
060081	ST	IIa	Floater, green	Lasmigona subviridis	Yes	BOVA,TEWaters,Habitat,HU6
010070	ST	IIc	Shiner, whitemouth	Notropis alborus		HU6
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata	Yes	BOVA,SppObs,HU6
010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes	BOVA,Habitat,SppObs,HU6
020063		IIa	Toad, oak	Anaxyrus quercicus	Potential	BOVA,Habitat,HU6
040052		IIa	Duck, American black	Anas rubripes	Potential	BOVA,BBA,HU6
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor	Potential	BOVA,BBA,HU6
060071		IIa	Lampmussel, yellow	Lampsilis cariosa		BOVA,HU6
040105		IIb	Rail, king	Rallus elegans		BOVA

060175		I Ib	Slabshell, Roanoke	Elliptio roanokensis	Potential	BOVA, Habitat, HU60
040304		I Ic	Warbler, Swainson's	Limnothlypis swainsonii		HU6

To view **All 473 species** [View 473](#)

*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 (2 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 ^{**}	
C23	Fountains Creek	Confirmed	3		IV	Yes
C50	Meherrin River	Confirmed	5		IV	Yes

Impediments to Fish Passage (5 records)

[View Map of All Fish Impediments](#)

ID	Name	River	View Map
194	EMPORIA DAM	MEHERRIN RIVER	Yes
199	GARNERS DAM	BEAVER POND CREEK	Yes
201	MITCHELLS DAM	FONTAINE CREEK	Yes
202	ROBINSON DAM	COLLIER BRANCH	Yes
200	SMITHS DAM	CATTAIL CREEK	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters (14 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	

Meherrin River (0272518))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0273247))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0275907))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0278943))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0284087))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0284143))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0285714))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0286073))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0288046))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0290744))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0290826))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0292409))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0298067))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes
Meherrin River (0300607))	ST	060081	ST	Ila	Floater, green	Lasmigona subviridis	Yes

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests (1 records)

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

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
GV1001	1	Mar 24 2010	UNKNOWN	Yes

Displayed 1 Bald Eagle Nests

Species Observations (94 records - displaying first 20 , 3
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**	
322076	SppObs	Jun 15 2009	John and Thelma Dalmas (VSO)	1	ST	I	Yes
3490	SppObs	Jun 2 1989	Div of Natural Heritage	1	ST	I	Yes
364052	SppObs	Jan 1 1900		2	CC	III	Yes
8264	SppObs	Jan 1 1900	MITCHELL NORMAN	1		I	Yes
318801	SppObs	Apr 22 2007	John Alderman	7		III	Yes
311327	SppObs	Jun 17 2005	Paul Angermeier (Principle Permittee) & Anita Lahey	35		III	Yes
375326	Aquatics	Nov 10 2004	B. T. Watson, S. L. Huffer	12		III	Yes
11671	SppObs	Sep 20 1990	ANGERMEIER ET AL	23		III	Yes
2444	SppObs	Aug 1 1990	Blaine D. Snyder	13		III	Yes
2442	SppObs	May 8 1990	Blaine D. Snyder	4		III	Yes
322282	SppObs	Jul 22 1985	M. Norman; R. Southwick; J. St. Martin	14		III	Yes
11315	SppObs	Jul 22 1985	NORMAN	19		III	Yes
11317	SppObs	Jul 22 1985	NORMAN	11		III	Yes
10371	SppObs	May 23 1984	Norman	15		III	Yes
338015	SppObs	Jan 1 1984	MDN-B-NORMAN	15		III	Yes
337894	SppObs	Jan 1 1984	SPM-B-MCINICH	3		III	Yes
337560	SppObs	Jan 1 1983	REJ-B-JENKINS	7		III	Yes
		Aug 15					

15465	SppObs	1979	H J PETRIMOULX	7		Attachment 2.F.1 Page 11 of 40	Yes
336724	SppObs	Jan 1 1979	HJP-B-PETRIMOULX	7		III	Yes
334597	SppObs	Jan 1 1973	WE-WOODWARD ENVICON	5		III	Yes

Displayed 20 Species Observations

Selected 94 Observations [View all 94 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					
Maclins Creek (03010201)	FESE	010214	FESE	Ia	Logperch, Roanoke	Percina rex	Yes
		060173	FPST	Ia	Pigtoe, Atlantic	Fusconaia masoni	
Meherrin River (03010204)	ST	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		060081	ST	Ia	Floater, green	Lasmigona subviridis	
		060175		I Ib	Slabshell, Roanoke	Elliptio roanokensis	
Meherrin River (03010204)	ST	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		060081	ST	Ia	Floater, green	Lasmigona subviridis	
		060175		I Ib	Slabshell, Roanoke	Elliptio roanokensis	

Habitat Predicted for Terrestrial WAP Tier I & II Species

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
020063		Ia	Toad, oak	Anaxyrus quercicus	Yes

Virginia Breeding Bird Atlas Blocks (6 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**	
49026	Ante, SE	73		II	Yes
49014	Barley, CE	61	ST	I	Yes

49012	Barley, NE	25		III	Yes
50024	Emporia, CE	32		IV	Yes
50013	Skippers, CW	55		III	Yes
50011	Skippers, NW	68		II	Yes

Public Holdings:

N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
081	Greensville	376	FESE	I
595	Emporia City	308	FESE	I

USGS 7.5' Quadrangles:

Barley
Ante
Skippers
Emporia

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
CM19	Meherrin River-Douglas Run	65	FTSE	I
CM20	Meherrin River-Falling Run	67	FTSE	I
CM24	Fontaine Creek-Cattail Creek	60	SE	I
CM25	Beaverpond Creek	55	SE	I
CM27	Fontaine Creek-Mill Swamp	58	SE	I
CU38	Maclins Creek	54	FESE	I

Compiled on 6/3/2020, 8:39:52 AM I1036115.0 report=all searchType= L dist= 3218 poi= 36,35,51.7 -77,37,30.2 siteDD= 36.5452916 -77.6466082;36.5991972 -77.6196360;36.6999694 -77.5941804;36.7183500 -77.5853304

PixelSize=64; Anadromous=0.066451; BBA=0.172125; BECAR=0.034675; Bats=0.035859; Buffer=0.672206; County=0.149522; HU6=0.306746; Impediments=0.04891; Init=0.744198; PublicLands=0.076031; Quad=0.249184; SppObs=0.552846; TEWaters=0.104496; TierReaches=0.202315; TierTerrestrial=0.596031; Total=3.836674; Tracking_BOVA=0.183149; Trout=0.099933; huva=0.200812

VaFWIS - Department of Game and Inland Fisheries

36,37,54.5 -77,36,57.5

is the Search Point

Submit

Cancel

Search Point

- ☐ Change to "clicked" map point
- ☐ Fixed at 36,37,54.5 -77,36,57.5

Show Position Rings

- ☐ Yes ☐ No

4 miles and 1 mile at the Search Point

Show Search Area

- ☒ Yes ☐ No

2 Search distance miles buffer

Search Point is at map center

Base Map Choices

Topography

Map Overlay Choices

Current List: Search

Map Overlay Legend

2 mile radius Search Area

[Refresh Browser Page](#)

Map Click

Pan To M

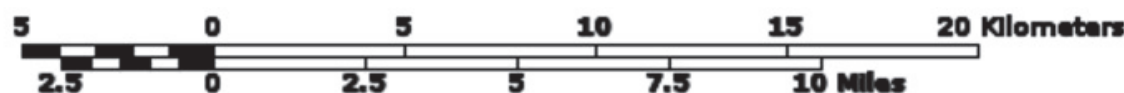
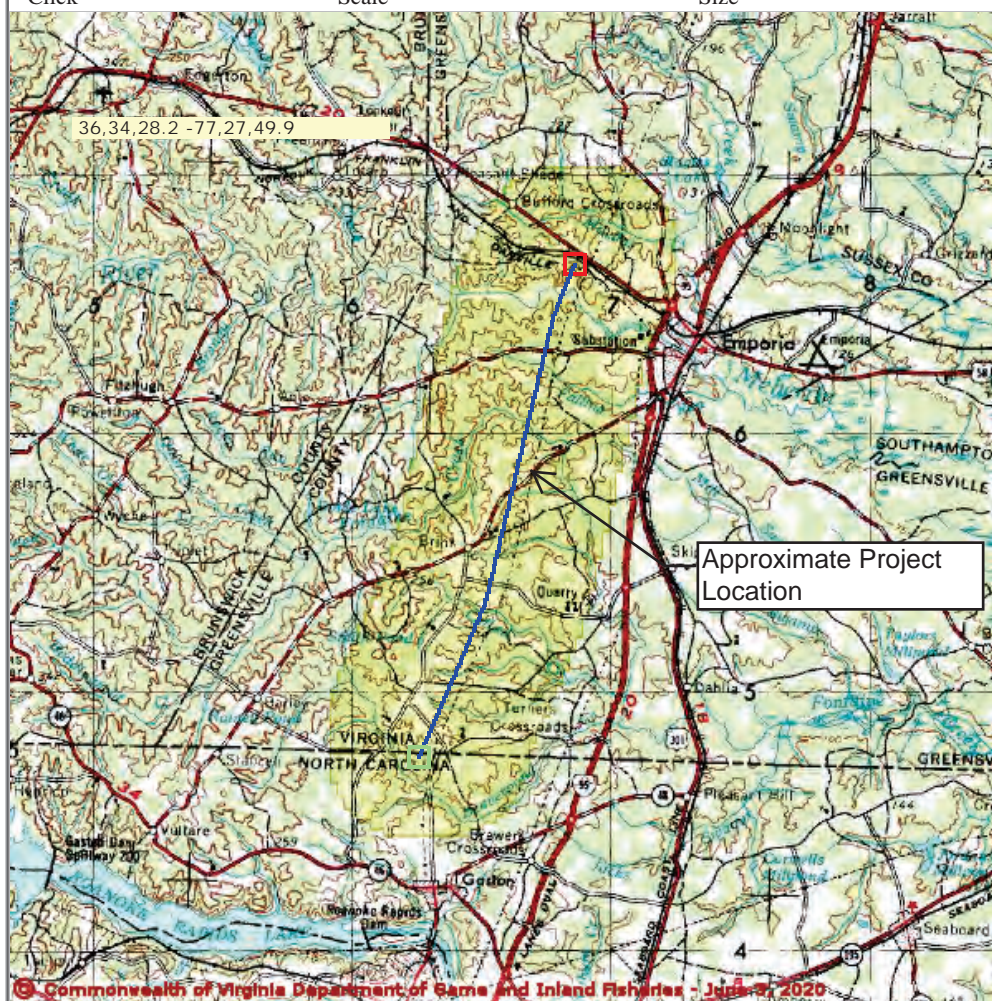
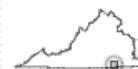
Map Scale

In Zoom Out

Screen Size

Small Size Big

[Help](#)



Point of Search 36,37,54.5 -77,36,57.5
Map Location 36,37,54.5 -77,36,57.5

- 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://terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 246900 and top 4076418. Pixel size is 43. .
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 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 2020-06-03 08:34:17 (qa/qc March 21, 2016 12:20 - tm=1036115 dist=32181)
\$poi=36.5977000 -77.6250600

0							
0					0		

**Habitat Predicted for
WAP Tier I and II
Species where Loggerch,
Roanoke (010214)
observed**

36.35,51.7 -77.37,30.2

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 not at center

Base Map [Choices](#)

Topography

Map Overlay [Choices](#)

Current List: Position, Search, TierReaches

Map Overlay Legend



36.36, 14.9 - 77.25, 29.0

Pan

Zoom In

Zoom Out

Map Click

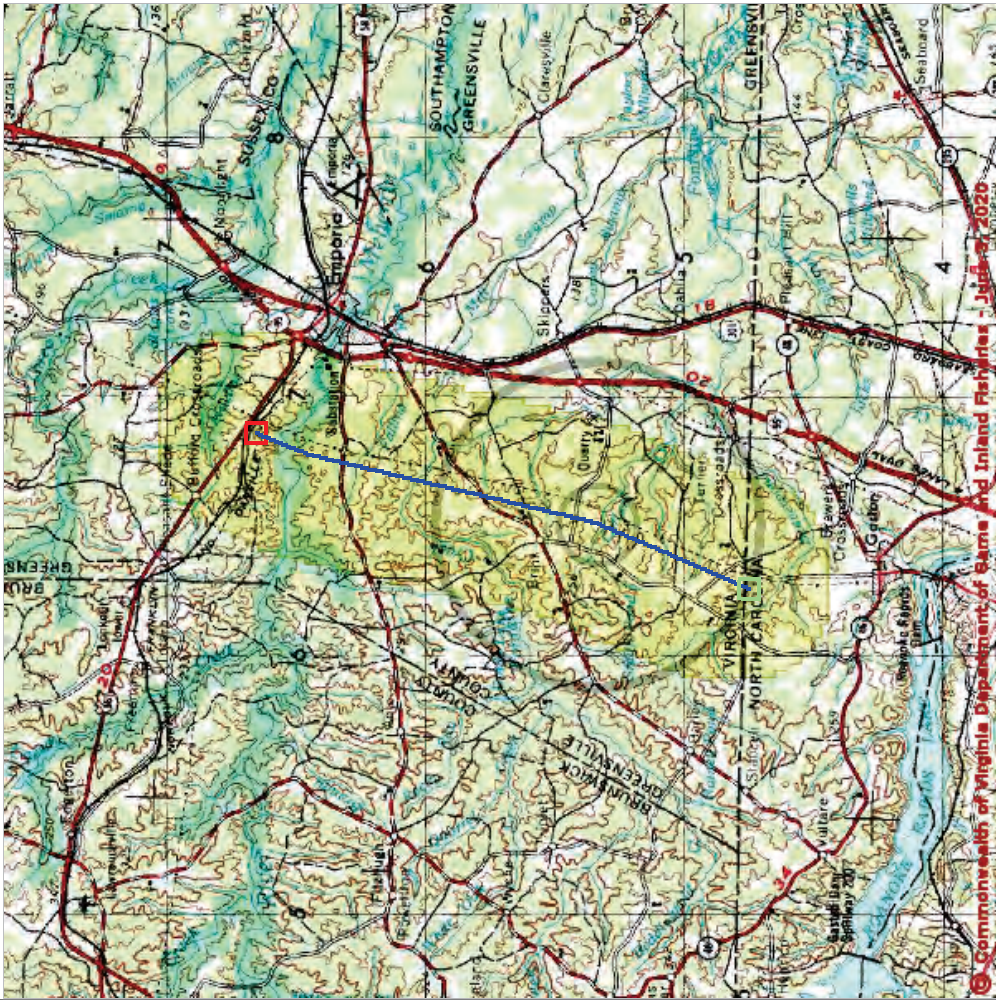
Screen Size

Small

Big

Refresh Browser Page

Help



Predicted Habitat
WAP Tier I & II

Aquatic

Terrestrial

Position Rings
4 miles and 1
mile at the
Search Point

2 mile radius
Search Area

Point of Search 36,35,51.7 -77,37,30.2
Map Location 36,37,54.5 -77,36,57.5

- 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](#) for details)

Map projection is UTM Zone 18 NAD 1983 with left 246900 and top 4076418. Pixel size is 43. .
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as
600 columns by 600 rows for a total of 360000 pixles. The map display represents 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 2020-06-03 09:06:10 (qa/qc March 21, 2016 12:20 - tn=1036115.1 dist=3218 I)
\$poi=36.5976944 -77.6250556

0					
0			0		

Threatened and Endangered Waters where Floater, green (060081) observed

36,35,51.7 -77,37,30.2

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 not at 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



Map Click

Pan

36,37,14.9 -77,27,19.1

Zoom

Refresh Browser Page

Out

Map Scale

In

Small

Size

Big

Help

N

5

2.5

0

0

2.5

5

10

15

20

Kilometers

Miles

https://vafwis.dgif.virginia.gov/.../TEWaters&poi=36,35,51.7+-77,37,30.2&por=&ret=1&s=14&searchType=L&shift=0&t=2&title=Threatened+and+Endangered+Waters+ where Floater, green (060081) observed&m=1036115.1&kuse_s=0(6/3/2020 8:46:44 AM)

Point of Search 36,35,51.7 -77,37,30.2
Map Location 36,37,54.5 -77,36,57.5

- 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://terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 246900 and top 4076418. Pixel size is 43. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 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.

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\$poi=36.5976944 -77.6250556

0						
0				0		

Anadromous Fish Use Streams

36,35,51.7 -77,37,30.2

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

at center

Search Point is not at map center

Base Map Choices

Topography

Map Overlay Choices

Current List: Position, Search, Anadromous

Map Overlay Legend

Anadromous Fish Reach

Confirmed

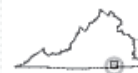
Potential

223 Impediment

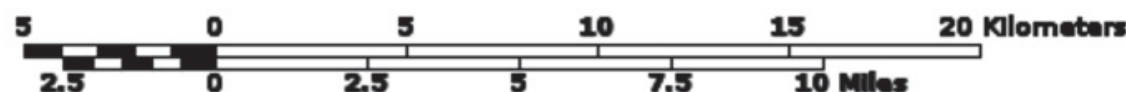
Position Rings
4 miles and 1 mile at the Search Point

2 mile radius Search Area

Map Click **Pan** **Td** **M** Map Scale **In** **Zoom** **Out** Screen Size **Small** **Size** **Big** [Help](#) [Refresh Browser Page](#)



© Commonwealth of Virginia Department of Game and Inland Fisheries - June 27, 2020



Point of Search 36,35,51.7 -77,37,30.2
Map Location 36,37,54.5 -77,36,57.5

- 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://terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 246900 and top 4076418. Pixel size is 43. .
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 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.

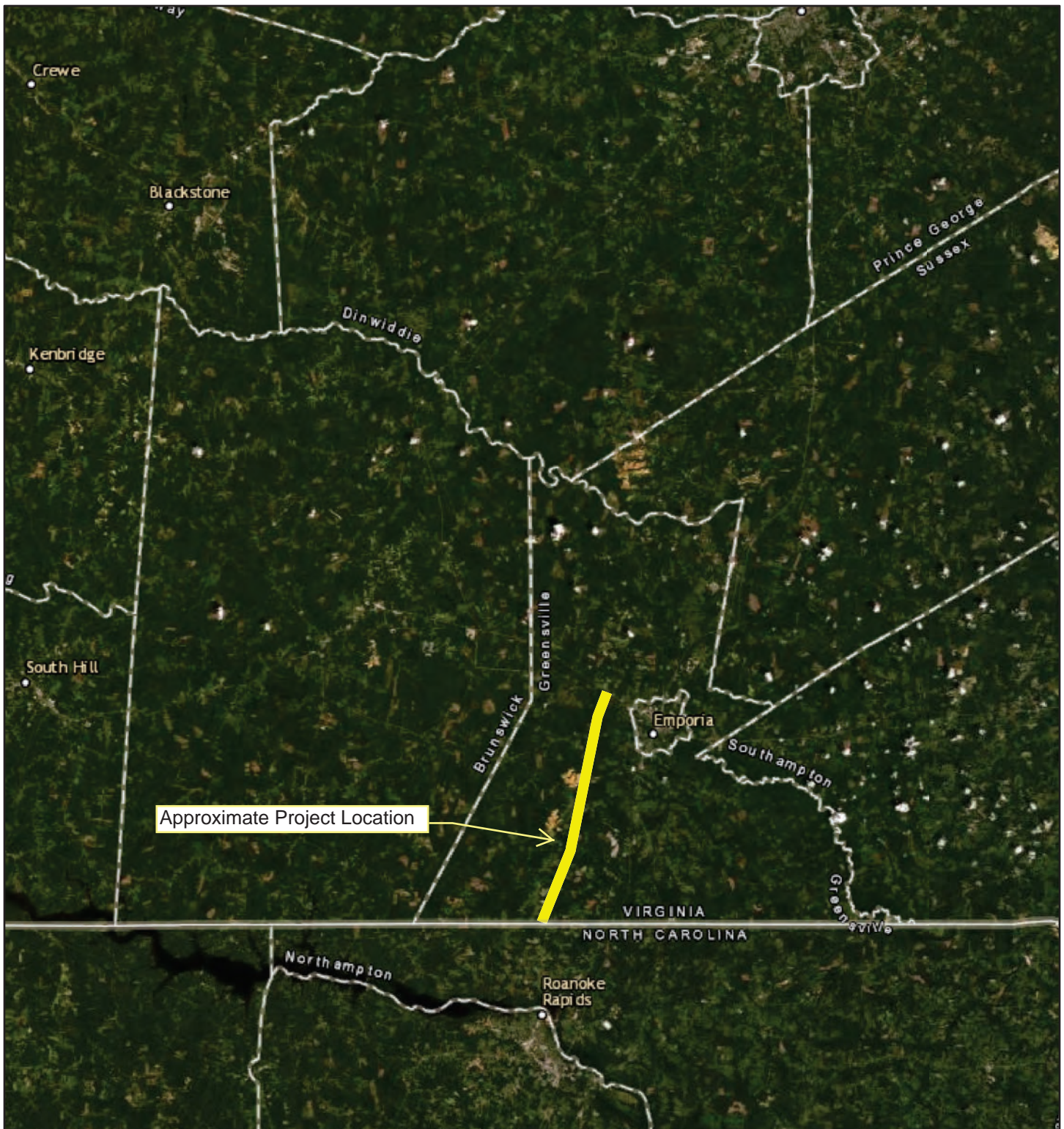
map assembled 2020-06-03 08:54:44 (qa/qc March 21, 2016 12:20 - tm=1036115.0 dist=3218 I) - \$poi=36.5976944 -77.6250556

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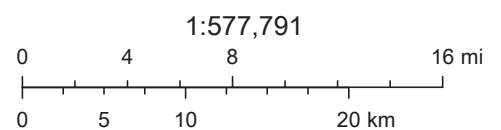
ATTACHMENT

DWR-NLEB Winter Habitat and Roost Tree Map

NLEB Locations and Roost Trees



6/2/2020, 3:31:32 PM



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ATTACHMENT

DCR-NHDE

Natural Heritage Resources

Your Criteria

Taxonomic Group: Select All

Federal Legal Status: Select All

State Legal Status: Select All

Watershed (8 digit HUC): 03010204 - Meherrin River

Subwatershed (12 digit HUC): CM20 - Meherrin River-Falling Run

Search Run: 6/3/2020 9:27:04 AM

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	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Meherrin								
Meherrin River-Falling Run								
VASCULAR PLANTS								
Reclining Bulrush	Scirpus flaccidifolius	Scirpus flaccidifolius	G2	S1S2	SOC	LT	6	N

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](#).



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Select All

Accomack

Albemarle

Alleghany

Click here to view county map

Select All

Allegheny Mountains

Cumberland Mountains

Northern Blue Ridge

Click here to view province map

Watershed (8 digit HUC):

03010202 - Blackwater River

03010203 - Chowan River

03010204 - Meherrin River

03010205 - Albemarle

Click here to view watershed map

Subwatershed (12 digit HUC):

CM12 - Meherrin River-Coudal Creek

CM18 - Reedy Creek-County Pond

CM19 - Meherrin River-Douglas Run

CM20 - Meherrin River-Falling Run

Click here to view subwatershed map

Planning District:

Select All

Accomack-Northampton

Central Shenandoah

Commonwealth Regional Council

Click here to view planning district map

Virginia Coastal Zone:

Select All

Yes

No

Click here to view coastal zone map

Search


Reset

Results

No results

Location Search Error

No results found.



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Alleghany

Click here to view county map

Select All

Allegheny Mountains

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Click here to view province map

Watershed (8 digit HUC):

03010202 - Blackwater River

03010203 - Chowan River

03010204 - Meherrin River

03010205 - Albemarle

Click here to view watershed map

Subwatershed (12 digit HUC):

CM23 - Fontaine Creek-Quarrel Creek

CM24 - Fontaine Creek-Cattail Creek

CM25 - Beaverpond Creek

CM26 - Jacks Swamp-Corvells Millpond

Click here to view subwatershed map

Planning District:

Select All

Accomack-Northampton

Central Shenandoah

Commonwealth Regional Council

Click here to view planning district map

Virginia Coastal Zone:

Select All

Yes

No

Click here to view coastal zone map

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Results

No results

Location Search Error

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03010203 - Chowan River

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03010205 - Albemarle

Click here to view watershed map

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CM24 - Fontaine Creek-Cattail Creek

CM25 - Beaverpond Creek

CM26 - Jacks Swamp-Corvells Millpond

Click here to view subwatershed map

Planning District:

Select All

Accomack-Northampton

Central Shenandoah

Commonwealth Regional Council

Click here to view planning district map

Virginia Coastal Zone:

Select All

Yes

No

Click here to view coastal zone map

Search

Reset

Results

No results

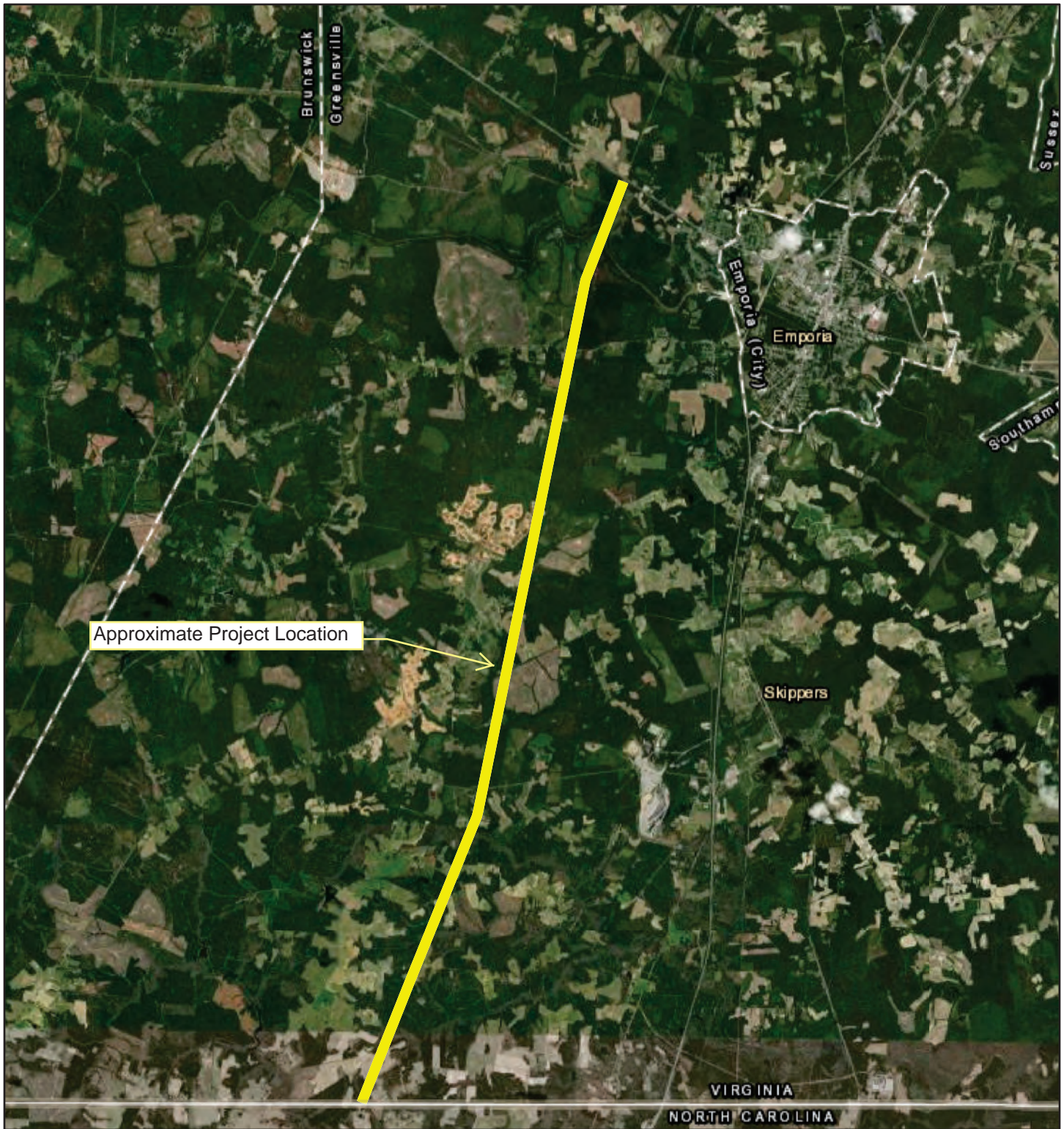
Location Search Error

No results found.

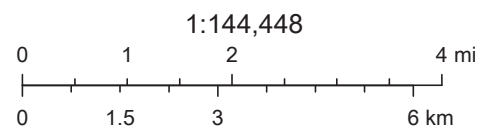
ATTACHMENT

DWR-MYLU and PESU Habitat Application

MYLU PESU Habitat Map



6/3/2020, 8:22:15 AM



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Dept. Game and Inland Fisheries
USDA FSA, Earthstar Geographics | VITA, Esri, HERE, Garmin |

Rachel M Studebaker (Services - 6)

From: Rhur, Roberta <robbie.rhur@dcr.virginia.gov>
Sent: Thursday, October 8, 2020 11:06 AM
To: Rachel M Studebaker (Services - 6)
Subject: [EXTERNAL] Re: Clubhouse to Lakeview 230kV Rebuild Project

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

Good Morning;

I have reviewed the project area for resources and have determined that there are no impact to PRR resources. As always, please consult with DCR Division of Natural Heritage for their comments.

Thank you
Robbie Rhur

On Wed, Oct 7, 2020 at 4:11 PM Rachel.M.Studebaker@dominionenergy.com
<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 Greenville County, 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

Rachel M Studebaker (Services - 6)

From: Hypes, Rene' <rene.hypes@dcr.virginia.gov>
Sent: Thursday, October 8, 2020 6:06 AM
To: Rachel M Studebaker (Services - 6)
Cc: nhreview, rr
Subject: [EXTERNAL] Re: Clubhouse to Lakeview 230kV Rebuild Project

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

Ms. Studebaker,

Thank you for your request. In order for us to initiate the review of this project, we need a completed [information services order form](#) along with the attached project map. It would also be helpful if you could provide an ArcGIS shapefile. Please note, our standard review time is 30 calendar days starting upon receipt of the completed information services order form. I am happy to speak to you or your supervisor about our review process.

Please let me know if you have any questions.

Sincerely,

Rene' Hypes

On Wed, Oct 7, 2020 at 4:14 PM Rachel.M.Studebaker@dominionenergy.com
<Rachel.M.Studebaker@dominionenergy.com> wrote:

Ms. Hypes,

Please see the attached letter and project map notifying you of the proposed transmission line rebuild project located in Greenville County, 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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--

S. Rene' Hypes

Project Review Coordinator

Department of Conservation and Recreation

Division of Natural Heritage

600 East Main Street, 24th Floor

Richmond, Virginia 23219

[804-371-2708](tel:804-371-2708) (phone)

[804-371-2674](tel:804-371-2674) (fax)

rene.hypes@dcr.virginia.gov

<http://www.dcr.virginia.gov/natural-heritage>

Rachel M Studebaker (Services - 6)

From: Ewing, Amy <amy.ewing@dwr.virginia.gov>
Sent: Thursday, October 8, 2020 1:14 PM
To: Rachel M Studebaker (Services - 6)
Subject: [EXTERNAL] Re: Clubhouse to Lakeview 230kV Rebuild Project

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

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. 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 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

On Wed, Oct 7, 2020 at 4:12 PM Rachel.M.Studebaker@dominionenergy.com

<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 Greensville County, 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



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

Rochelle Altholz
Deputy Director of
Administration and Finance

Russell W. Baxter
Deputy Director of
Dam Safety & Floodplain
Management and Soil & Water
Conservation

Nathan Burrell
Deputy Director of
Government and Community Relations

Thomas L. Smith
Deputy Director of
Operations

November 13, 2020

Christine Conrad
C2 Environmental, Inc
11818 Rock Landing Drive Suite 103
Newport News, VA 23606

Re: C2E TL2201/254, Clubhouse - Lakeview 230 KV Rebuild

Dear Ms. Conrad:

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

According to the information currently in our files, the following conservations are within the project area listed from north (Route 58) to south (North Carolina line): South Meherrin Powerline Conservation Site, Round Hill Church Powerline, Cattail Creek Powerline and Collier Branch Powerline (Figure 1).

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. DCR comments are provided by 1:24,000 quadrangle below.

Emporia Quad

The South Meherrin Powerline Conservation Site (Figure 2) has been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resource of concern at this site is:

Paspalum dissectum

Walter's paspalum

G4?/S2/NL/NL

Walter's paspalum is a rhizomatous, perennial grass which grows in open, shallow pools, puddles, and exposed mud, interdune swales and ponds, impoundment edges and seasonally exposed sandy or gravelly river shores and bars (Weakley, et al.). During late summer, when water levels are at their lowest, the grass blooms and fruits. The species is currently known from nine locations and historically known from four locations in Virginia's

southeastern wetlands. Walter's paspalum is threatened by habitat loss and competition from non-native invasive species that utilize this habitat type (TNC, 1996).

The Round Hill Church Powerline Conservation Site (Figure 3) has been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resource of concern at this site is:

<i>Paspalum dissectum</i>	Walter's paspalum	G4?/S2/NL/NL
---------------------------	-------------------	--------------

Skippers Quad

The Cattail Creek Powerline Conservation Site (Figure 4) has been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resources of concern at this site are:

<i>Hypericum setosum</i>	Hairy St. John's-wort	G4G5/S1S2/NL/NL
<i>Scleria minor</i>	Slender Nutrush	G4/S2/NL/NL

Barley Quad

The Collier Branch Powerline Conservation Site (Figure 5) has been given a biodiversity significance ranking of B4, which represents a site of moderate significance. The natural heritage resources of concern at this site are:

<i>Ludwigia hirtella</i>	Rafinesque's seedbox	G5/S2/NL/NL
<i>Coreopsis linifolia</i>	Savanna coreopsis	G4Q/S1/NL/NL
<i>Sabatia campanulata</i>	Slender Marsh Pink	G5/S2/NL/NL
<i>Hypericum adpressum</i>	Bog St. John's-wort	G3/S1/NL/NL
<i>Juncus elliotii</i>	Bog Rush	G4G5/S1/NL/NL
<i>Mitreola sessilifolia</i>	Swamp hornpod	G4G5/S1/NL/NL
<i>Eryngium integrifolium</i>	Blue-flower eryngo	G5/S1/NL/NL

All Quads

DCR recommends avoidance of the documented natural heritage resources within the powerline right-of-way during the rebuild of the powerline including but not limited to tower placement, access and staging areas for the project (see attached maps for natural heritage resource locations). DCR also recommends the development and implementation of an invasive species plan to be included as part of the maintenance practices for the right-of-way (ROW). The invasive species plan should include an invasive species inventory for the project area based on the current DCR Invasive Species List (<http://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2014.pdf>) and methods for treating the invasives. ROW restoration include appropriate revegetation using native species in a mix of grasses and forbs, robust monitoring and adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur. DCR supports post construction ROW maintenance following the same pre-construction maintenance protocol in maintaining suitable habitat for the documented rare plants.

If tree removal is proposed, the project will fragment Ecological Cores (C1, C3, C4 and C5) as identified in the Virginia Natural Landscape Assessment (<https://www.dcr.virginia.gov/natural-heritage/vaconvisvnl>), one of a suite of tools in Virginia ConservationVision that identify and prioritize lands for conservation and protection.

Ecological Cores are areas of unfragmented natural cover with at least 100 acres of interior that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that

utilize marsh, dune, and beach habitats. Cores also provide benefits in terms of open space, recreation, water quality (including drinking water protection and erosion prevention), and air quality (including carbon sequestration and oxygen production), along with the many associated economic benefits of these functions. The cores are ranked from C1 to C5 (C5 being the least ecologically relevant) using many prioritization criteria, such as the proportions of sensitive habitats of natural heritage resources they contain.

Fragmentation occurs when a large, contiguous block of natural cover is dissected by development, and other forms of permanent conversion, into one or more smaller patches.. Habitat fragmentation results in biogeographic changes that disrupt species interactions and ecosystem processes, reducing biodiversity and habitat quality due to limited recolonization, increased predation and egg parasitism, and increased invasion by weedy species.

Therefore minimizing fragmentation is a key mitigation measure that will preserve the natural patterns and connectivity of habitats that are key components of biodiversity. The deleterious effects of fragmentation can be reduced by minimizing edge in remaining fragments; by retaining natural corridors that allow movement between fragments; and by designing the intervening landscape to minimize its hostility to native wildlife (natural cover versus lawns). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: <http://vanhde.org/content/map>.

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

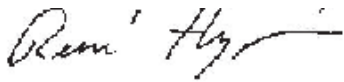
New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of \$630.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov. According to the information currently in our files, Meherrin River, which has been designated by the VDWR as a “Threatened and Endangered Species Water” for the Green Floater is within the submitted project boundary. Therefore, DCR recommends coordination with VDWR, Virginia's regulatory authority for the management and protection of this species to ensure compliance with protected species legislation.

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "S. René Hypes", with a long horizontal flourish extending to the right.

S. René Hypes
Natural Heritage Project Review Coordinator

Cc: Ernie Aschenbach, VDWR

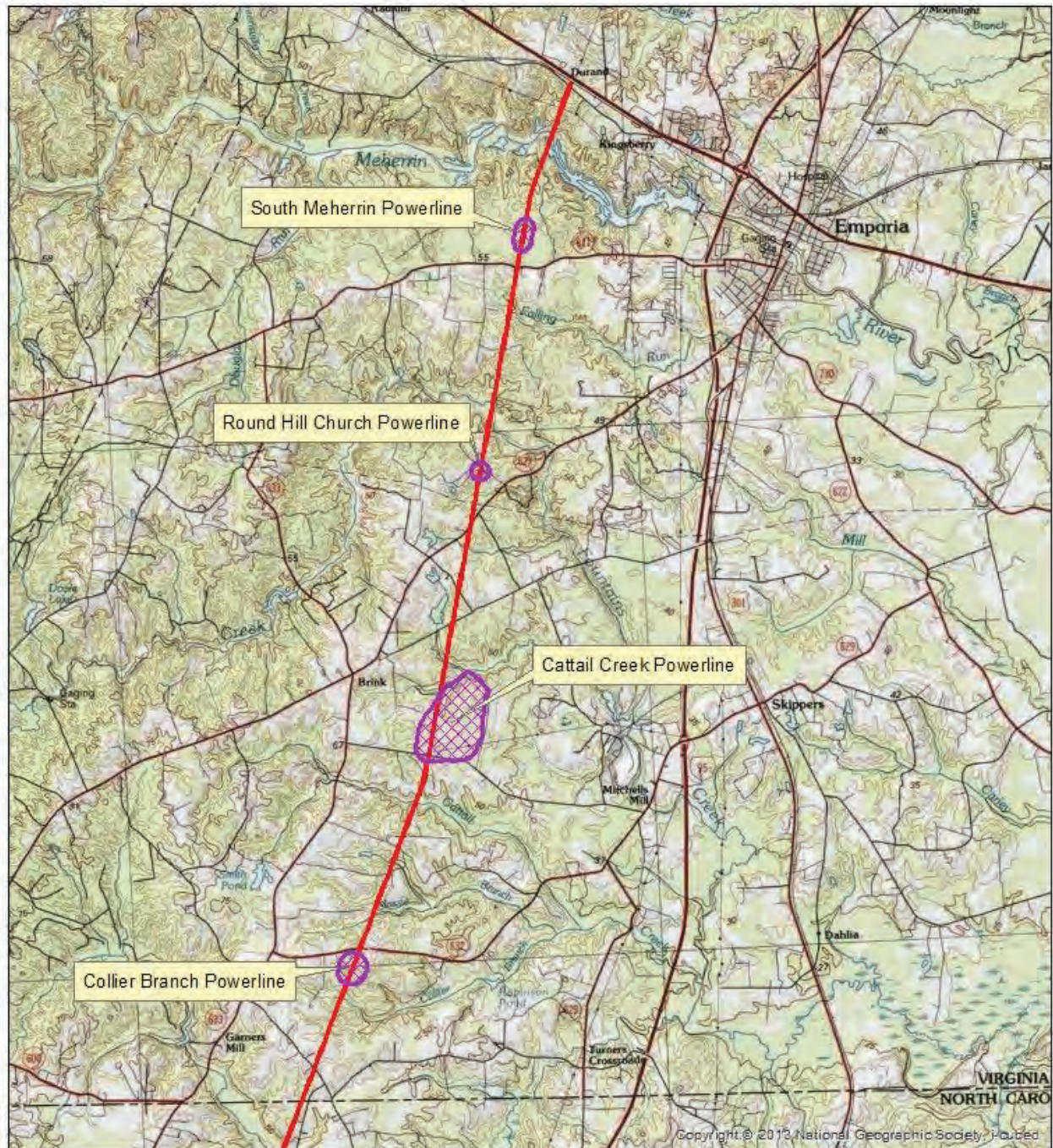
Literature Cited

The Nature Conservancy. 1996. Biological and Conservation Data System. Arlington, Virginia, USA.

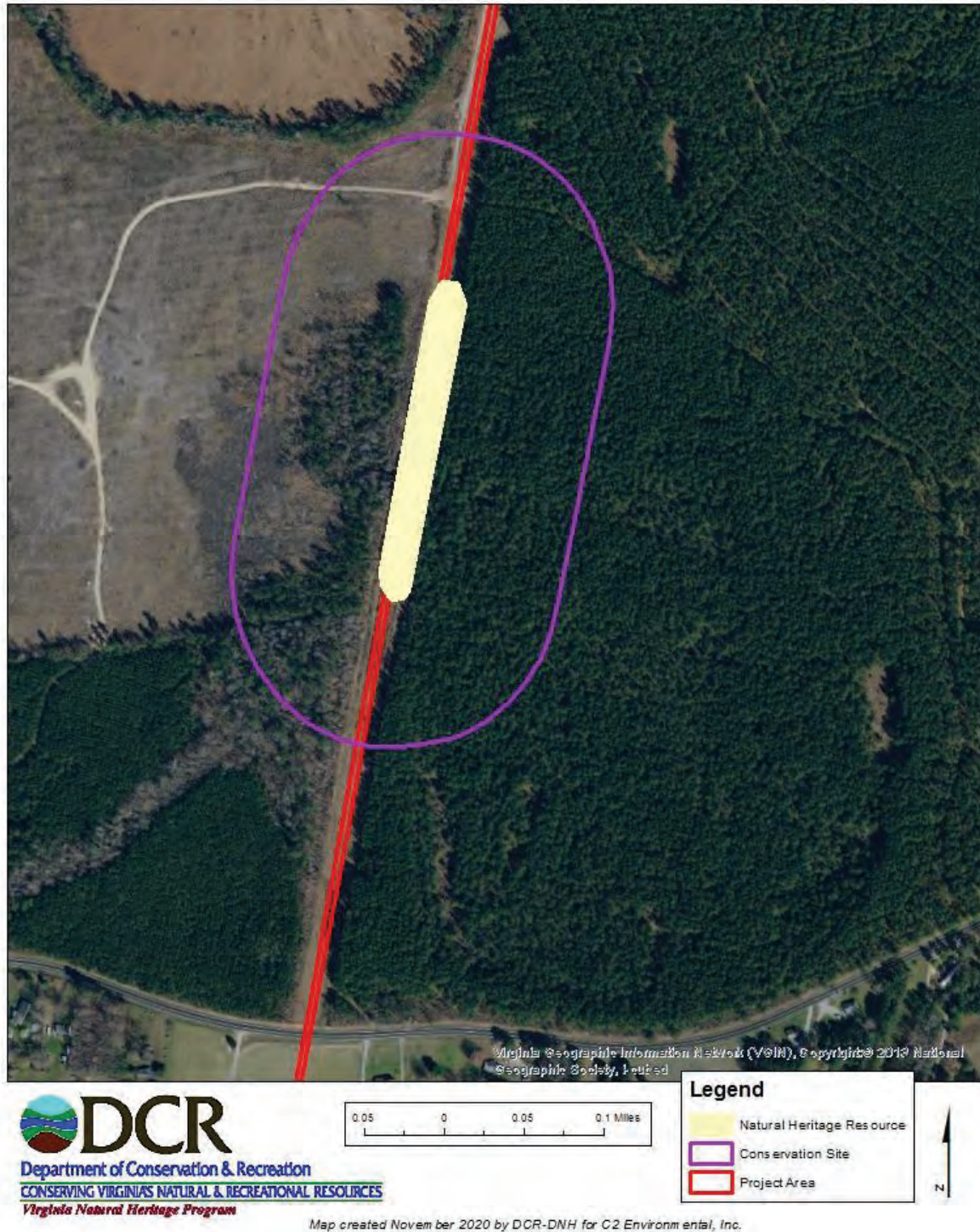
Weakley, A.S., J.C. Ludwig and J.F. Townsend. 2012. *Flora of Virginia*. Botanical Research Institute of Texas Press, Fort Worth. p. 322.

TL2201/254 Clubhouse - Lakeview 230 kV Rebuild

Figure 1. Location of Conservation Sites



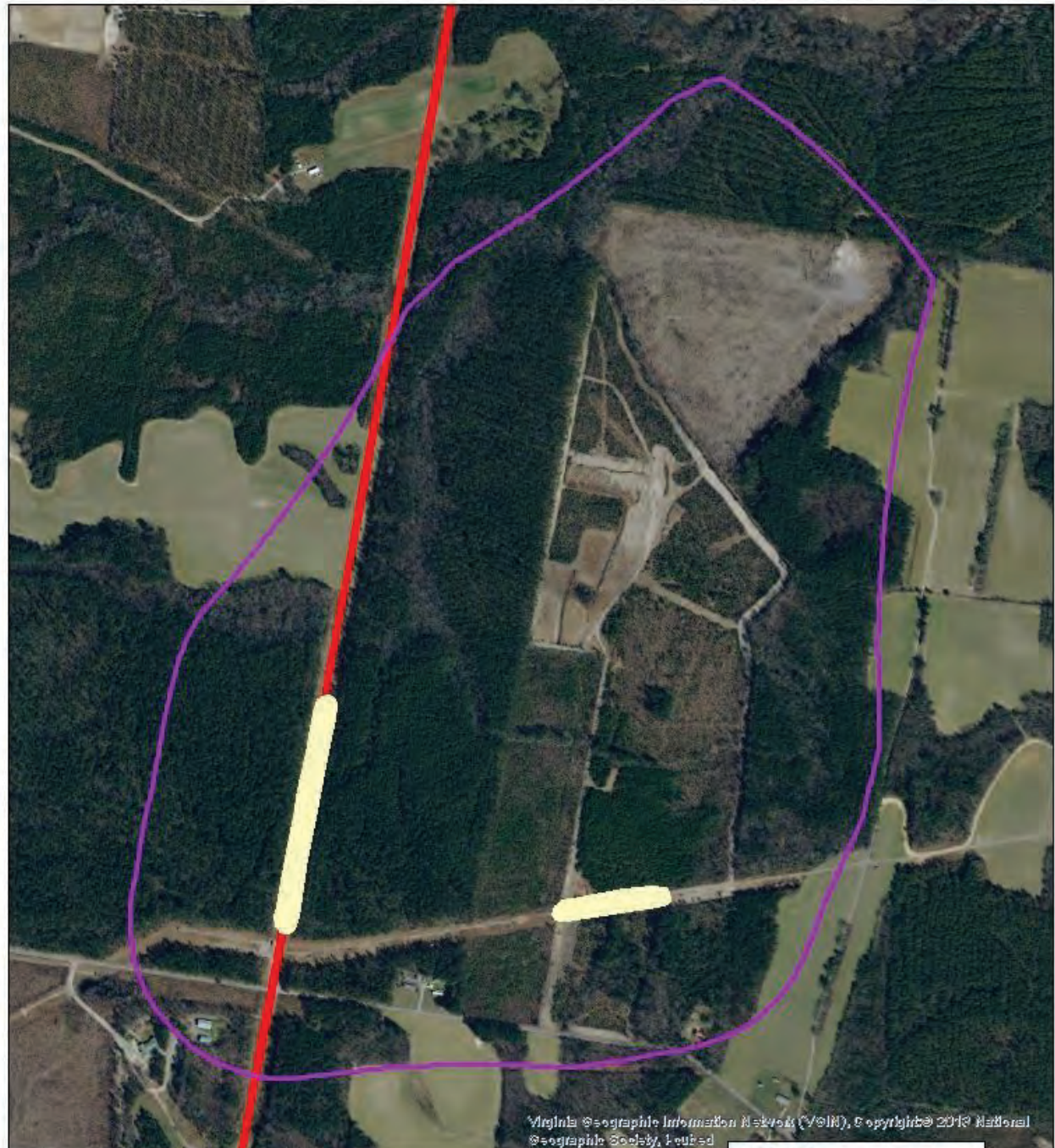
TL2201/254 Clubhouse - Lakeview 230 kV Rebuild
Figure 2. South Meherrin Powerline Conservation Site



TL2201/254 Clubhouse - Lakeview 230 kV Rebuild
Figure 3. Round Hill Church Powerline Conservation Site

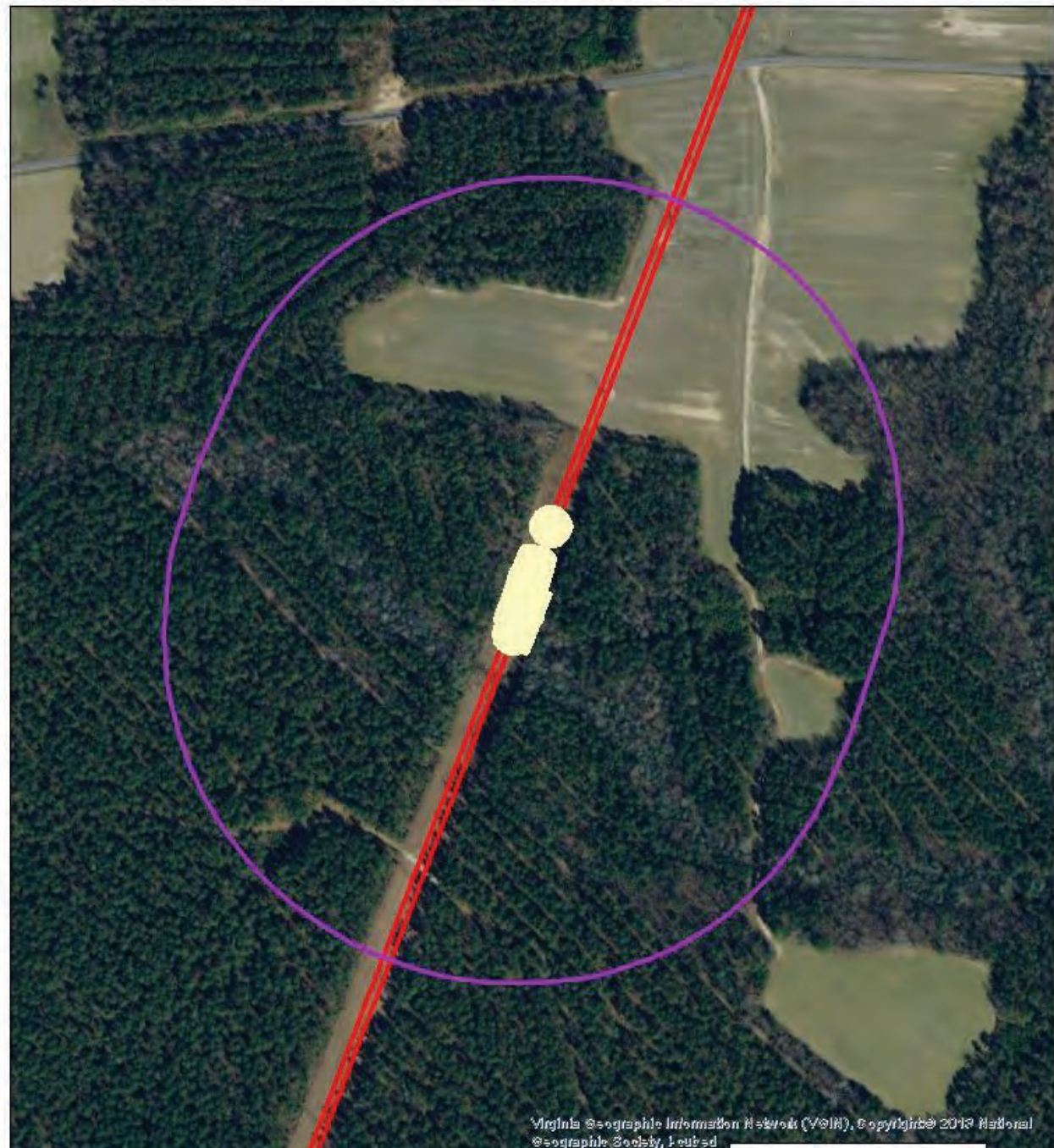


TL2201/254 Clubhouse - Lakeview 230 kV Rebuild Figure 4. Cattail Creek Powerline Conservation Site



TL2201/254 Clubhouse - Lakeview 230 kV Rebuild

Figure 5. Collier Branch Powerline Conservation Site



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Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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

P.O. Box 1105, Richmond, Virginia 23218

(800) 592-5482

www.deq.virginia.gov

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

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
 - 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;

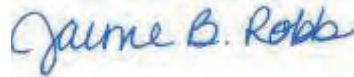
Dominion Energy (Electric Transmission) – AS&S for ESC and SWM
August 12, 2019
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- vi: Acreage of disturbance for project;
 - vii: Project start and finish date; and
 - viii: Any variances/exceptions/waivers associated with this project.
3. Project tracking 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
Elizabeth Hester, Elizabeth.l.hester@dominionenergy.com
Stacey Ellis, 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.

REPORT >

**SCC Pre-Application Analysis
Of Cultural Resources for the
Clubhouse-Dry Bread Line #2201 and Dry Bread-
Lakeview Line #254 230kV Virginia Rebuild Project**

LOCATION > Greenville County, Virginia

DATE > OCTOBER 2020

PREPARED FOR >

Dominion Energy



PREPARED BY >

Dutton + Associates, LLC

Dutton + Associates

CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

PROJECT REVIEW # >

**SCC Pre-Application Analysis
of Cultural Resources for the
Clubhouse-Dry Bread Line #2201 and
Dry Bread- Lakeview Line #254
230kV Virginia Rebuild Project**

Greensville County, Virginia

PREPARED FOR:

DOMINION ENERGY

PREPARED BY:

DUTTON + ASSOCIATES, LLC
1115 Crowder Drive
Midlothian, Virginia 23236
804.644.8290

PRINCIPAL INVESTIGATOR:

Robert J. Taylor, Jr. M.A.

October 2020

ABSTRACT

Dutton + Associates, LLC (D+A) conducted a Pre-Application Analysis (analysis) of cultural resources for the Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project in Greensville County, Virginia. The analysis was performed for Dominion Virginia Power (Dominion) in support of a State Corporation Commission (SCC) application. The analysis was completed in accordance with Virginia Department of Historic Resources' (VDHR) guidance titled "Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia" (January 2008).

As part of Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project, Dominion proposes to rebuild approximately 1.6 miles of the existing Clubhouse-Dry Bread Line #2201 which runs from Structure #2201/A within the existing Clubhouse Substation to Structure #2201/14 / #254/14 within the existing Dry Bread Substation. An additional 10.9 miles of the existing Dry Bread-Lakeview Line #254 extending from Structure #254/14 within the Dry Bread Substation to Structure #254/113 at the Virginia state line will also be rebuilt. The existing line was built in 1962, and is suspended from two-pole, H-frame wood structures that average 63-feet in height. They will be replaced on a one-to-one basis with two-pole, H-frame weathering steel structures that average 70-feet in height. No additional clearing or ROW will be required as part of the project.

The background research conducted as part of this analysis was guided by VDHR guidance and designed to identify all previously recorded National Historic Landmarks (NHL) located within 1.5-miles of the proposed project, all historic properties listed in the National Register of Historic Places (NRHP) or battlefields located within 1-mile of the proposed project, all historic properties considered eligible for listing in the NRHP located within 0.5-miles of the proposed project, and all buildings, structures, and archaeological sites located directly within the proposed project area. Historic properties include architectural and archaeological (terrestrial and underwater) resources, historic and cultural landscapes, battlefields, and historic districts. For each historic property within the defined tiers, a review of existing documentation and a field reconnaissance was undertaken to assess each property's significant character-defining features, as well as the character of its current setting. Following identification of historic properties, D+A assessed the potential for impacts to any identified properties as a result of the proposed project. Specific attention was given to determining whether or not construction related to the project could introduce new visual elements into the property's viewshed or directly impact the property through construction, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP.

Review of the VDHR VCRIS inventory records revealed a total of 93 previously recorded architectural resources are located 1.5-miles of the proposed project. Of these, there are no NHLs located within 1.5-miles of the proposed project, no properties listed in the NRHP or battlefields located within 1-mile of the project, and one property that has been determined eligible for listing in the NRHP within 0.5-miles of the project. This consists of the c.1838 Chambliss House which was determined eligible for listing in the NRHP in 1999 as part of a proposed rehabilitation tax credit project.

VCRIS also revealed there are one-hundred-twenty (120) previously recorded archaeological sites within one mile of the project area. Eighteen (18) of these sites are located directly within or adjacent to the project area (within 100 feet of the project centerline). The sites within or adjacent to the project area primarily consist of prehistoric lithic scatters, camps, and occupation sites. There is also one historic-period domestic site and two artifact scatters. None of the sites within or adjacent to the project area have been previously determined eligible for listing in the NRHP. The two Reconstruction-era artifact scatters have been determined not eligible for listing in the NRHP by the VDHR, and the remaining sites have not been formally evaluated.

Field inspection and representative photographs reveal that the project will be mostly to completely screened from view from all locations within and around the Chambliss House property. An existing transmission line crosses through an agricultural field on the Chambliss House property with unobstructed views from the house, however, the portion of the line to be rebuilt is across the road within a thickly wooded area that completely screens it from visibility and will likely continue to do so. It is therefore D+A's opinion that the proposed Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project will have no more than a **minimal impact** on the Chambliss House..

A summary of findings and recommendations is provided in the table below.

Potential Impacts Summary for Architectural Resources

VDHR ID #	Resource Name	NRHP Status	Impact
040-0010	Chambliss House	NRHP- Eligible	Minimal

With regards to archaeology, there are 18 previously recorded sites within or immediately adjacent (within 100-feet of the centerline) to the project area. Of these, two sites have been determined not eligible for listing in the NRHP and the remaining 16 have not been formally evaluated. No archaeological survey or inspection was conducted as part of this effort. It is therefore D+A's opinion that re-identification and verification of site boundaries and eligibility should be conducted prior to any earth-moving or ground-disturbing activity associated with the Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project.

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1. INTRODUCTION

In August 2020, Dutton + Associates, LLC (D+A) conducted a Pre-Application Analysis (analysis) of cultural resources for the Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230kV Virginia Rebuild Project. The analysis was performed for Dominion Energy (Dominion) in support of a State Corporation Commission (SCC) application. The analysis was conducted in accordance with Virginia Department of Historic Resources' (VDHR) guidance titled *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (January 2008) and Commonwealth of Virginia State Corporation Commission Division of Public Utility Regulation *Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia* (August 2017).

This analysis was performed at a level that meets the purpose and intent of VDHR and the SCC's guidance. It provides information on the presence of previously recorded National Historic Landmark (NHL) properties located within a 1.5-mile buffer area established around the project area, properties listed on the National Register of Historic Places (NRHP), battlefields, and historic landscapes located within a 1-mile buffer around the project area, and properties previously determined eligible for listing in the NRHP located within a 0.5-mile buffer area around the project area, and previously identified archaeological resources directly within the project area. This analysis will not satisfy Section 106 identification and evaluation requirements in the event federal permits or licenses are needed; however, it can be used as a planning document to assist in making decisions under Section 106 as to whether further cultural resource identification efforts may be warranted.

This report contains a research design which describes the scope and methodology of the analysis, discussion of previously identified historic properties, and an assessment of potential impacts. D+A Senior Architectural Historian Robert J. Taylor, Jr. M.A. served as Principal Investigator and oversaw the general course of the project and supervised all aspects of the work. Copies of all notes, maps, correspondence, and historical research materials are on file at the D+A main office in Midlothian, Virginia.

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2. PROJECT DESCRIPTION

As part of Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project, Dominion proposes to rebuild approximately 1.6 miles of the existing Clubhouse-Dry Bread Line #2201 which runs from Structure #2201/A within the existing Clubhouse Substation to Structure #2201/14 / #254/14 within the existing Dry Bread Substation. An additional 10.9 miles of the existing Dry Bread-Lakeview Line #254 extending from Structure #254/14 within the Dry Bread Substation to Structure #254/113 at the Virginia state line will also be rebuilt (Figure 2-1). The existing line, which was built in 1962, is suspended from two-pole, H-frame wood structures that average 63-feet in height. They will be replaced on a one-to-one basis with two-pole, H-frame weathering steel structures that average 70-feet in height. Representative existing and proposed structure schematics are depicted in Figure 2-2. No additional clearing or ROW will be required as part of the project.



Figure 2-1: Project Alignment General Location. Source: Dominion Energy



Figure 2-2: Location of Structures to be replaced (North half of alignment). Source: Dominion Energy



Figure 2-3: Location of Structures to be replaced (South half of alignment). Source: Dominion Energy

Table 2-1: Table of existing and proposed structure heights. Source: Dominion Energy

Structure Number	Existing Structure Height	Proposed Structure Height
238/264, 2201/1A	80	N/A
2201/1	59	61
2201/2	69	79
2201/3	67	79
2201/4	58	70
2201/5	76	84
2201/6	82	97
2201/7	80	79
2201/8	57	70
2201/9	59	66
2201/10	62	70
2201/11	71	75
2201/12	61	65
2201/13	61	N/A
254/14, 2201/14	75	N/A
254/15	61	N/A
254/16	66	N/A
254/17	58	61
254/18	57	66
254/19	55	66
254/20	63	66
254/21	57	66
254/22	55	61
254/23	66	N/A
254/24	57	61
254/25	66	75
254/26	55	70
254/27	65	75
254/28	57	66
254/29	57	66
254/30	67	70
254/31	63	66
254/32	61	70
254/33	55	66
254/34	67	75

PROJECT DESCRIPTION

Structure Number	Existing Structure Height	Proposed Structure Height
254/35	63	70
254/36	66	N/A
254/37	57	70
254/38	66	N/A
254/39	57	61
254/40	66	75
254/41	61	70
254/42	61	N/A
254/43	56	70
254/44	63	70
254/45	62	70
254/46	58	75
254/47	67	75
254/48	67	75
254/49	75	N/A
254/50	61	70
254/51	70	N/A
254/52	56	61
254/53	56	66
254/54	62	70
254/55	59	66
254/56	56	66
254/57	62	66
254/58	57	61
254/59	62	70
254/60	62	66
254/61	66	N/A
254/62	66	N/A
254/63	72	79
254/64	70	N/A
254/65	57	56.5
254/66	62	70
254/67	75	N/A
254/68	56	61
254/69	61	N/A
254/70	61	66
254/71	56	66
254/72	56	66

PROJECT DESCRIPTION

Structure Number	Existing Structure Height	Proposed Structure Height
254/73	66	N/A
254/74	62	75
254/75	62	66
254/76	61	66
254/77	61	66
254/78	62	65
254/79	68	70
254/80	53	57
254/81	58	66
254/82	63	70
254/83	62	70
254/84	61	66
254/85	61	70
254/86	56	66
254/87	64	75
254/88	66	75
254/89	58	66
254/90	62	70
254/91	75	N/A
254/92	62	84
254/93	66	N/A
254/94	62	70
254/95	66	N/A
254/96	61	70
254/97	56	66
254/98	55	66
254/99	62	75
254/100	66	70
254/101	65	79
254/102	62	70
254/103	62	66
254/104	62	70
254/105	56	66
254/106	62	70
254/107	62	66
254/108	66	70
254/109	60	66
254/110	55	61

PROJECT DESCRIPTION

Structure Number	Existing Structure Height	Proposed Structure Height
254/111	59	66
254/112	63	75
254/113	56	66
254/114	61	70
254/115	55	70
254/116	61	75
254/117	63	70
254/118	57	70
254/119	58	70
254/120	67	75
254/121	56	66
254/122	62	66
254/123	57	70
254/124	70	N/A
254/125	55	61
254/126	55	66
254/127	56	66
254/128	63	66
254/129	62	70
254/130	58	66
254/131	56	61
254/132	56	66
254/133	62	66
254/134	55	61
254/135	57	66
254/136	55	66
254/137	66	N/A
254/138	62	65
254/139	67	75
254/140	57	61
254/141	73	84
254/142	66	75
254/143	58	75
254/144	60	66
254/145	61	N/A
254/146	61	75
254/147	57	75
254/148	55	61

PROJECT DESCRIPTION

Structure Number	Existing Structure Height	Proposed Structure Height
254/149	56	66
254/150	61	70
254/151	63	65
254/152	56	61
254/153	77	65
254/154	65	75
254/155	62	66
254/156	67	70
254/157	66	97
254/158	69	
254/159	68	100
254/160	63	100
254/161	79	N/A
254/161A	90	
254/162	120	120
254/163	110	N/A
2141/1, 254/164	95	N/A

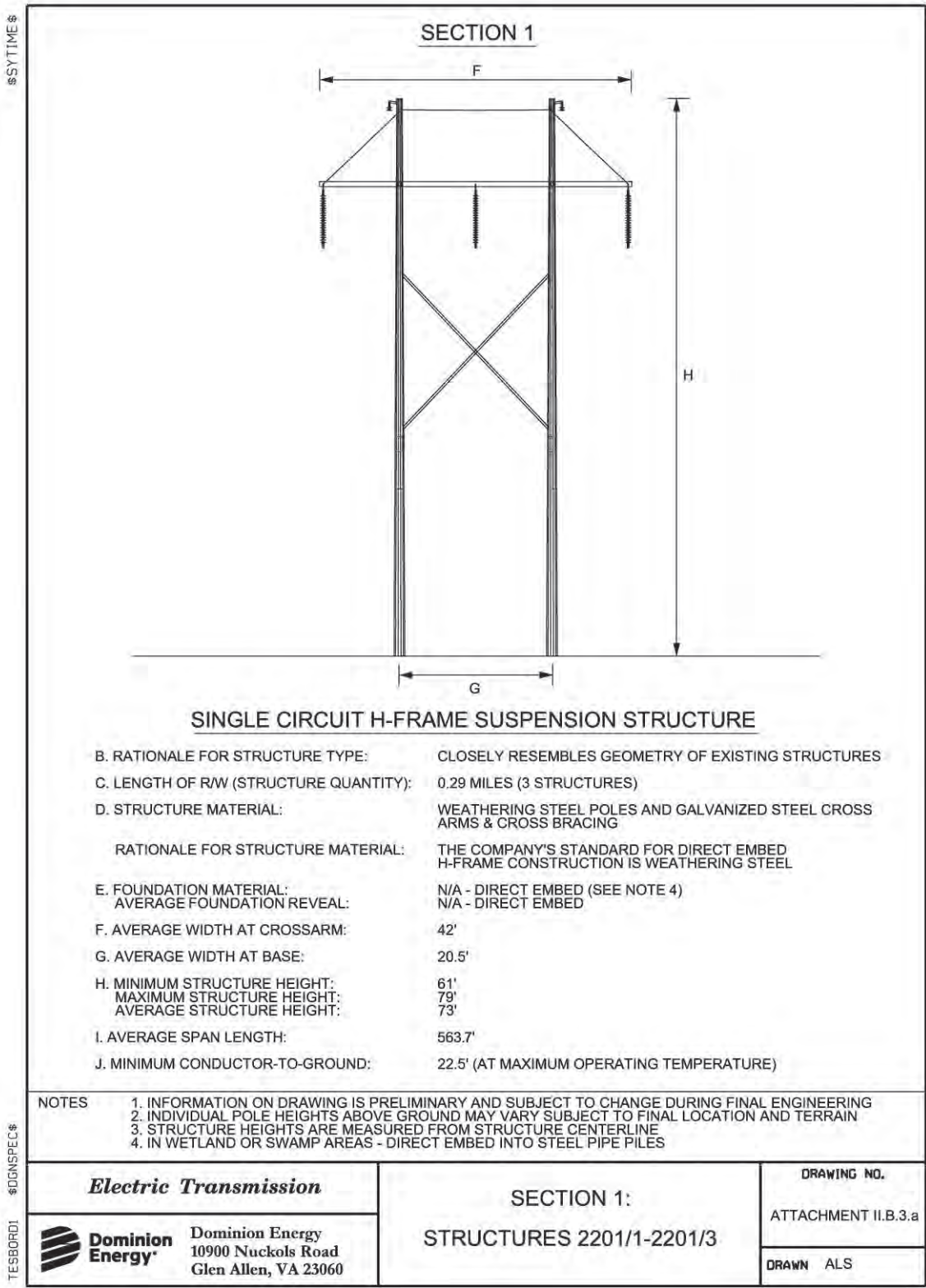


Figure 2-4: Representative proposed structures (2201/1 – 2201/3). Source: Dominion Energy

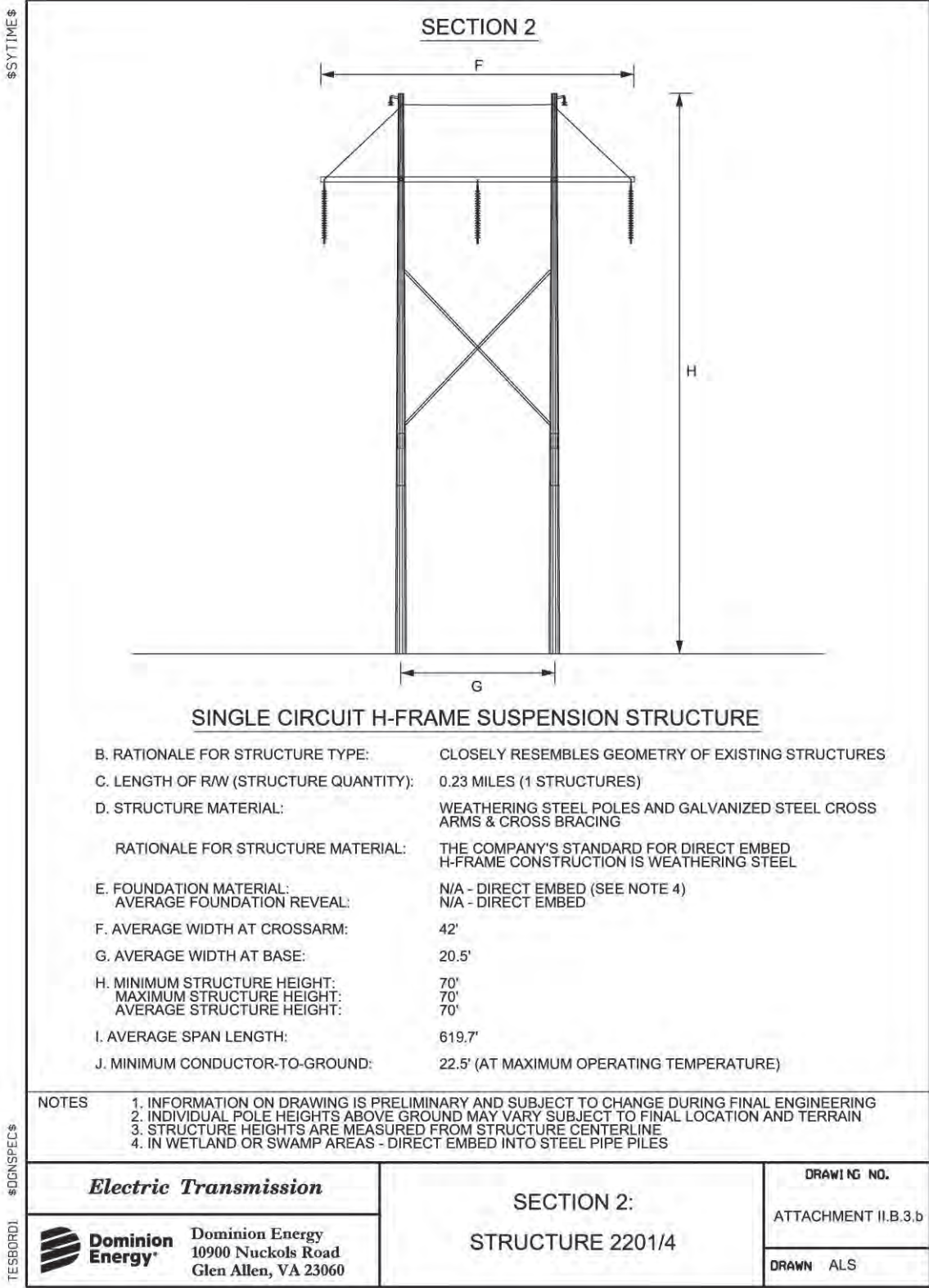


Figure 2-5: Proposed structure 2201/4. Source: Dominion Energy

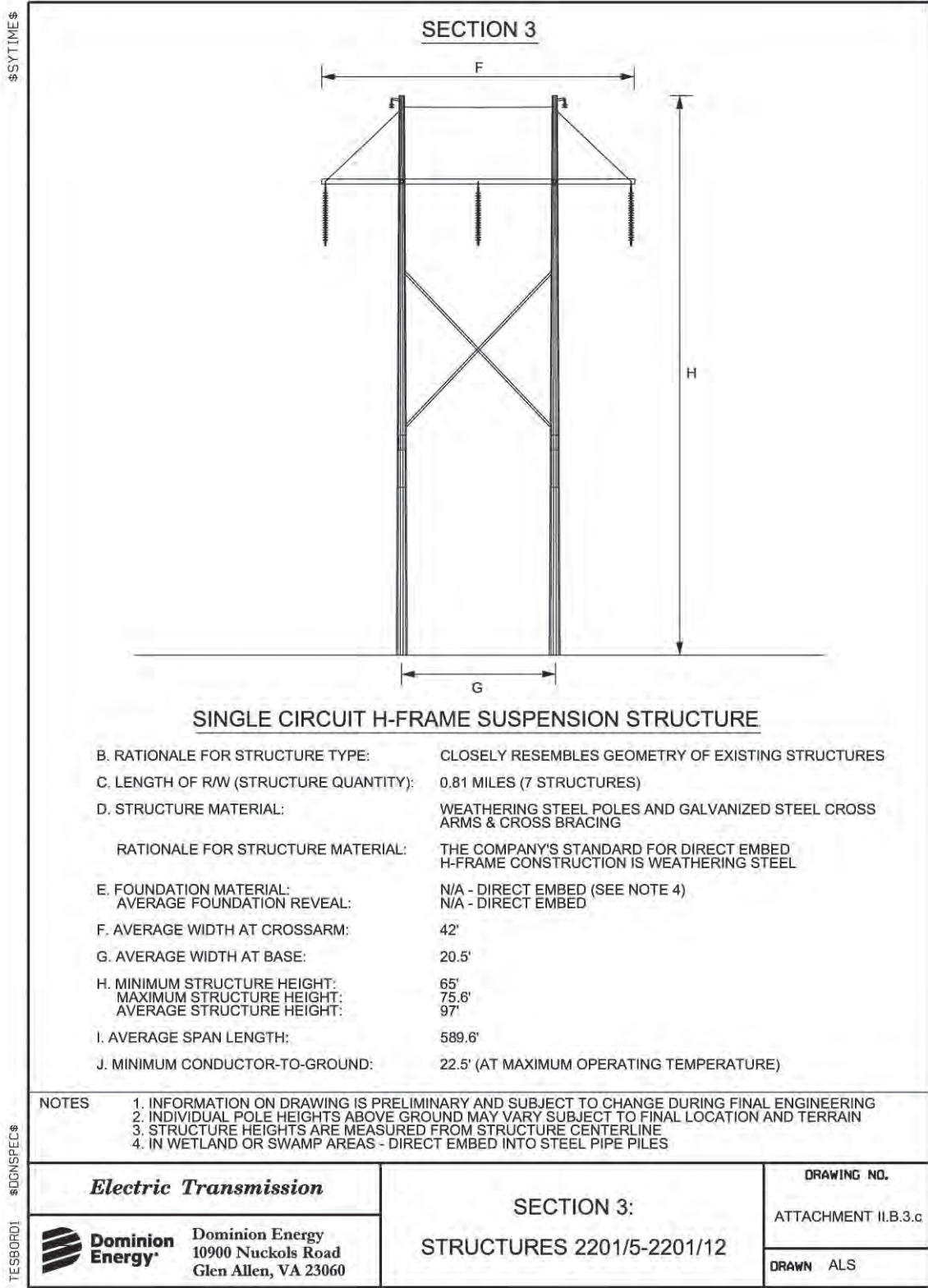


Figure 2-6: Representative proposed structures (2201/5 – 2201/12). Source: Dominion Energy

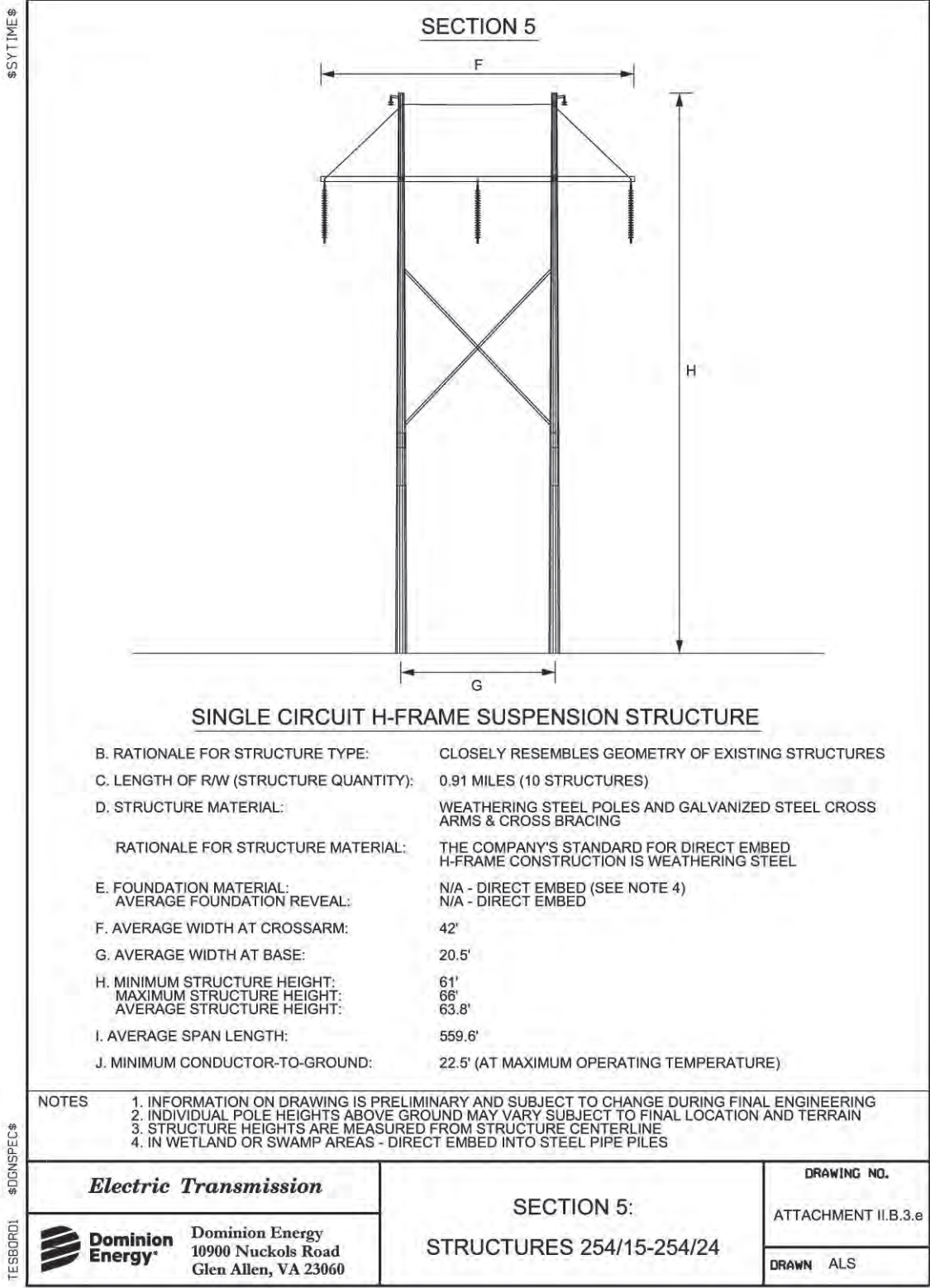


Figure 2-7: Representative proposed structures (254/15 – 254/24). Source: Dominion Energy

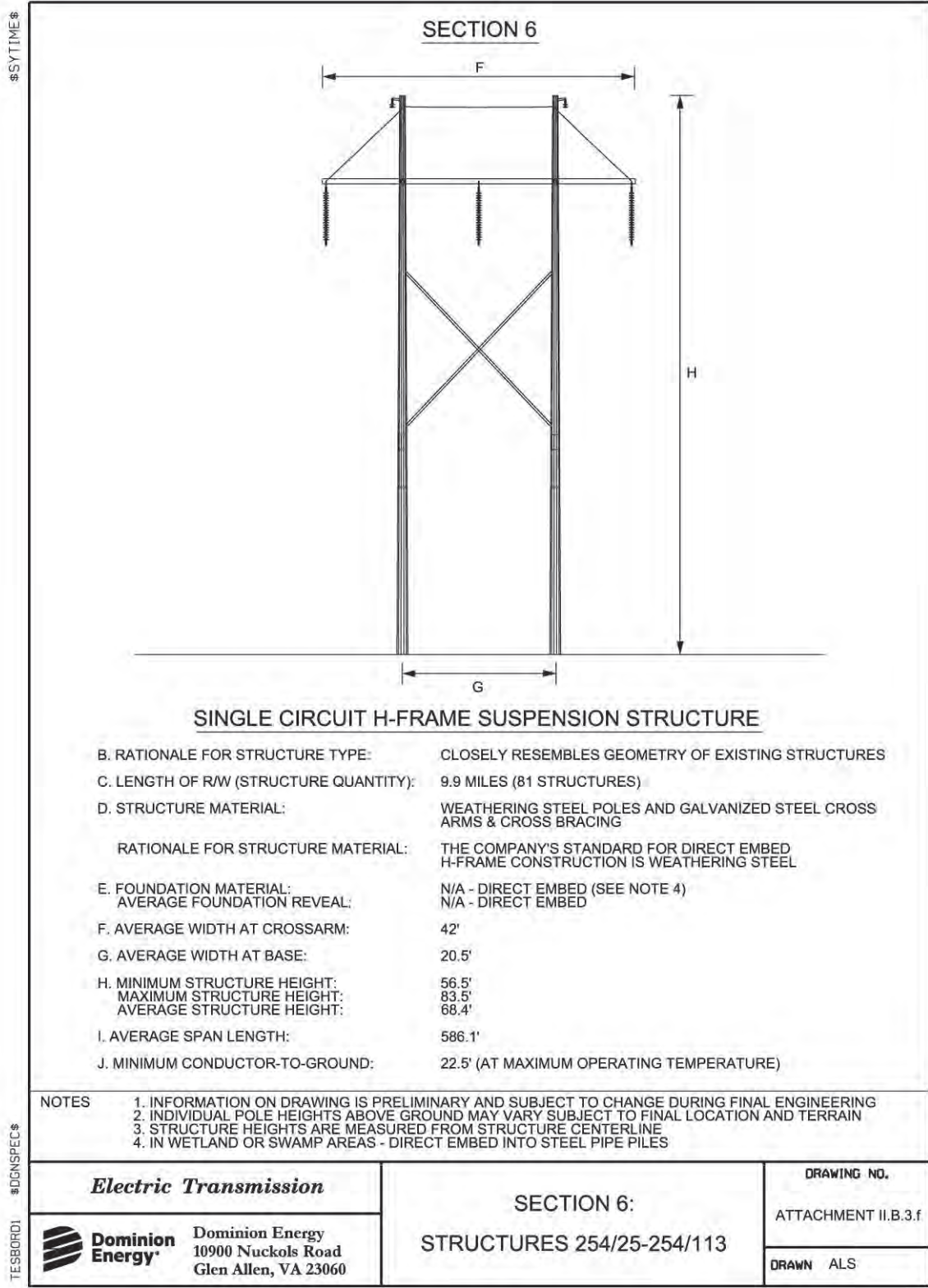


Figure 2-8: Representative proposed structures (254/25 – 254/113). Source: Dominion Energy

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3. RESEARCH DESIGN

The intent of this effort was to identify all known historic properties within the vicinity of the proposed project area in order to assess them for potential impacts brought about by the project. Historic properties include architectural and archaeological (terrestrial and underwater) resources, historic and cultural landscapes, battlefields, and historic districts. For each previously recorded historic property, an examination of property documentation, current aerial photography, and a field reconnaissance was undertaken to assess each property's integrity of feeling, setting, and association, and to provide photo documentation of the property including views toward the proposed project. The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9).

ARCHIVAL RESEARCH

In August 2020, D+A conducted archival research with the goal of identifying all previously recorded historic properties and any additional historic property locations referred to in historic documents and other archives, as well as consultation with local informants and other professionals with intimate knowledge of the project area as appropriate. Background research was conducted at the VDHR and on the internet and included the following sources:

- VDHR Virginia Cultural Resource Information System (V-CRIS) site files; and
- National Park Service (NPS), American Battlefield Protection Program (ABPP), maps and related documentation.

Data collection was performed according to VDHR guidance in *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (January 2008) and was organized in a multi-tier approach. As such, the effort was designed to identify all previously recorded NHL's located within 1.5-miles of the proposed project area, all historic properties listed in the NRHP, battlefields, and historic landscapes located within 1-mile of the project area, all historic properties previously determined eligible for listing in the NRHP located within 0.5-mile of the project area, and all properties located directly within the project area.

FIELD RECONNAISSANCE

Field reconnaissance included visual inspection of those previously recorded historic properties listed in the NRHP located within 1-mile of the project area, and all properties considered eligible for listing in the NRHP within 0.5-miles of the project area. Visual inspection included digital photo documentation of each property's existing conditions including its setting and views toward the proposed project. Photographs were taken of primary resource elevations, general setting, and existing viewsheds. All photographs were taken from public right-of-way or where property access was granted. No subsurface archaeological testing was conducted as part of this effort.

ASSESSMENT OF POTENTIAL IMPACTS

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project. When assessing impacts, D+A considered those qualities and characteristics that qualify the property for listing and whether the project had the potential to alter or diminish the integrity of the property and its associated significance. Specific attention was given to determining whether or not the proposed project would introduce new visual elements into a property's viewshed, which would either directly or indirectly alter those qualities or characteristics that qualify the historic property for listing in the NRHP. Identified impacts were characterized as severe (fully visible and incompatible with character-defining viewshed or setting), moderate (partially visible and incompatible with character-defining viewshed or setting), or minimal (not visible and/or not out of character with existing viewscape).

REPORT PREPARATION

The results of the archival resource, field inspection, and analysis were synthesized and summarized in a summary report accompanied by maps, illustrations, and photographs as appropriate. All research material and documentation generated by this project is on file at D+A's office in Midlothian, Virginia.

4. ARCHIVAL RESEARCH

This section includes a summary of efforts to identify previously known and recorded cultural resources within the tiered project buffers. It includes lists, maps, and descriptive data on all previously conducted cultural resource surveys, and previously recorded architectural resources and archaeological sites according to the VDHR archives and VCRIS database.

PREVIOUSLY SURVEYED AREAS

VDHR and VCRIS records indicate that there have been seven prior Phase I cultural resource surveys within one mile of the project area, five of which directly included portions of the project area. These surveys are at minimum archaeological in nature, although some include architectural resources as well. The five surveys that include portions of the project area were conducted for a variety of project types and purposes, including a comprehensive county-wide assessment, a linear pipeline project, a mining study, and two solar power generation site surveys. The previously conducted cultural resource surveys are listed in Table 4-1 and illustrated in Figures 4-1 through 4-3.

Table 4-1: Previously conducted cultural resource surveys within 1-mile of the Project Area (orange highlight denote surveys that included portions of the project area). Source: VDHR.

VDHR Survey #	Title	Author	Date
GV-004	A Preliminary Archeological Reconnaissance of Locations in Greenville County, Virginia and Northampton County, North Carolina	Thunderbird Archaeological Associates (Thunderbird Research Corp.)	1985
GV-005	An Intensive Study of Four Areas Along Fontaine Creek, Greenville County, Virginia	Thunderbird Archaeological Associates (Thunderbird Research Corp.)	1985
GV-025	Phase I Cultural Resource Survey of Three Falls Zone Tracts Proposed for Surface Mining, Greenville County, Virginia and Halifax County, North Carolina	(College of) William and Mary Center for Archaeological Research	1992
GV-032	Phase I Cultural Resources Survey of Approximately 5.735 Miles of Proposed Brink Pipeline, City of Emporia and Greenville County, Virginia	James River Institute for Archaeology	2008
GV-049	Phase I Cultural Resources Survey of the ±665 hectare (±1643 acre) Sadler Project Area, Greenville County, Virginia	Dutton & Associates	2018
GV-056	A Phase I Cultural Resources Survey of Approximately 846 Acres for the Proposed Meherrin Solar Site in Greenville County, Virginia	Stantec Consulting Services	2019
PG-085	Phase I Archaeological Survey of Proposed Solo Pipeline Vol. I-IV	Gray and Pape, Inc.	1999

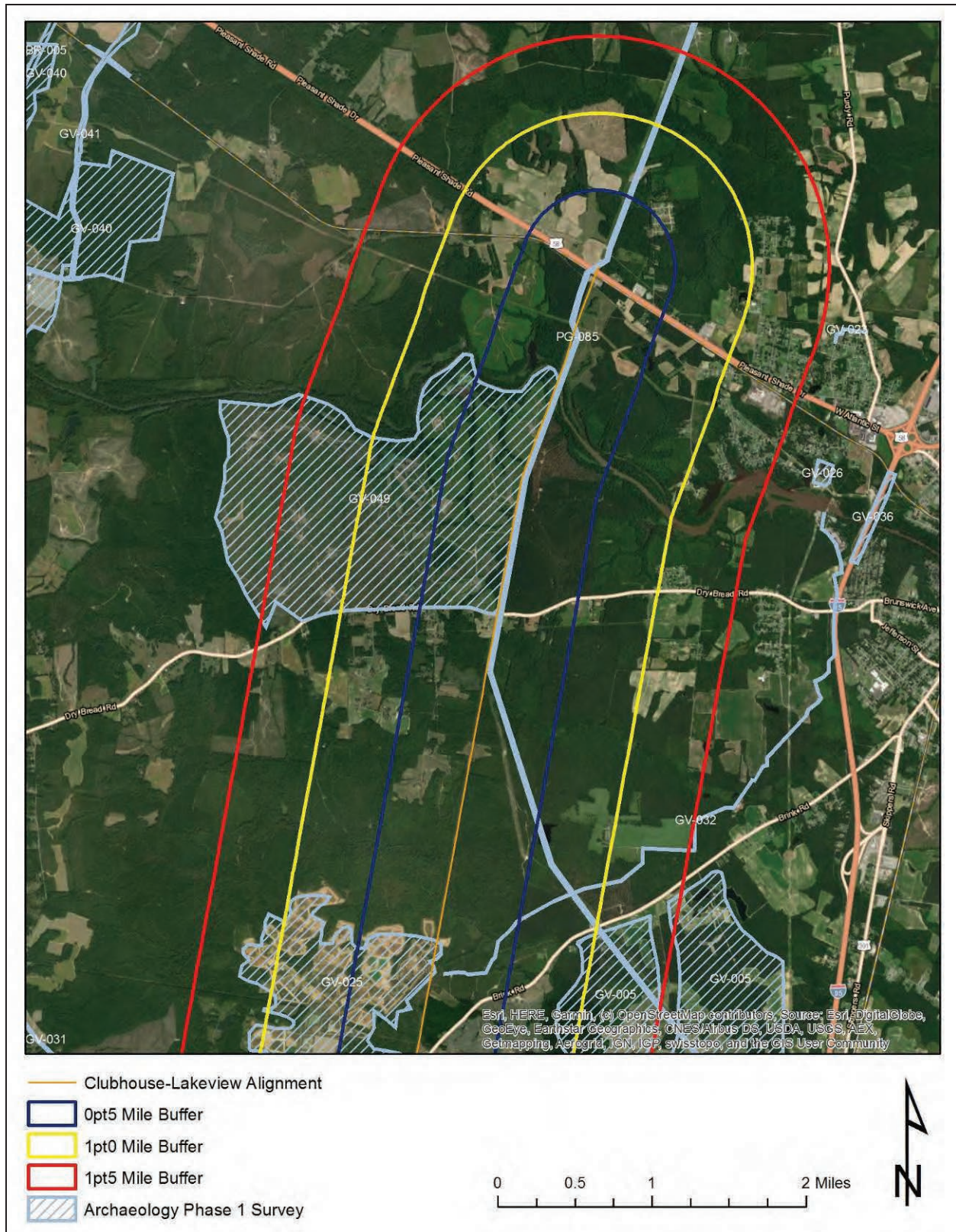


Figure 4-1: Previously conducted phase I surveys within 1-mile of the project area (northern portion).
Source: VCRIS

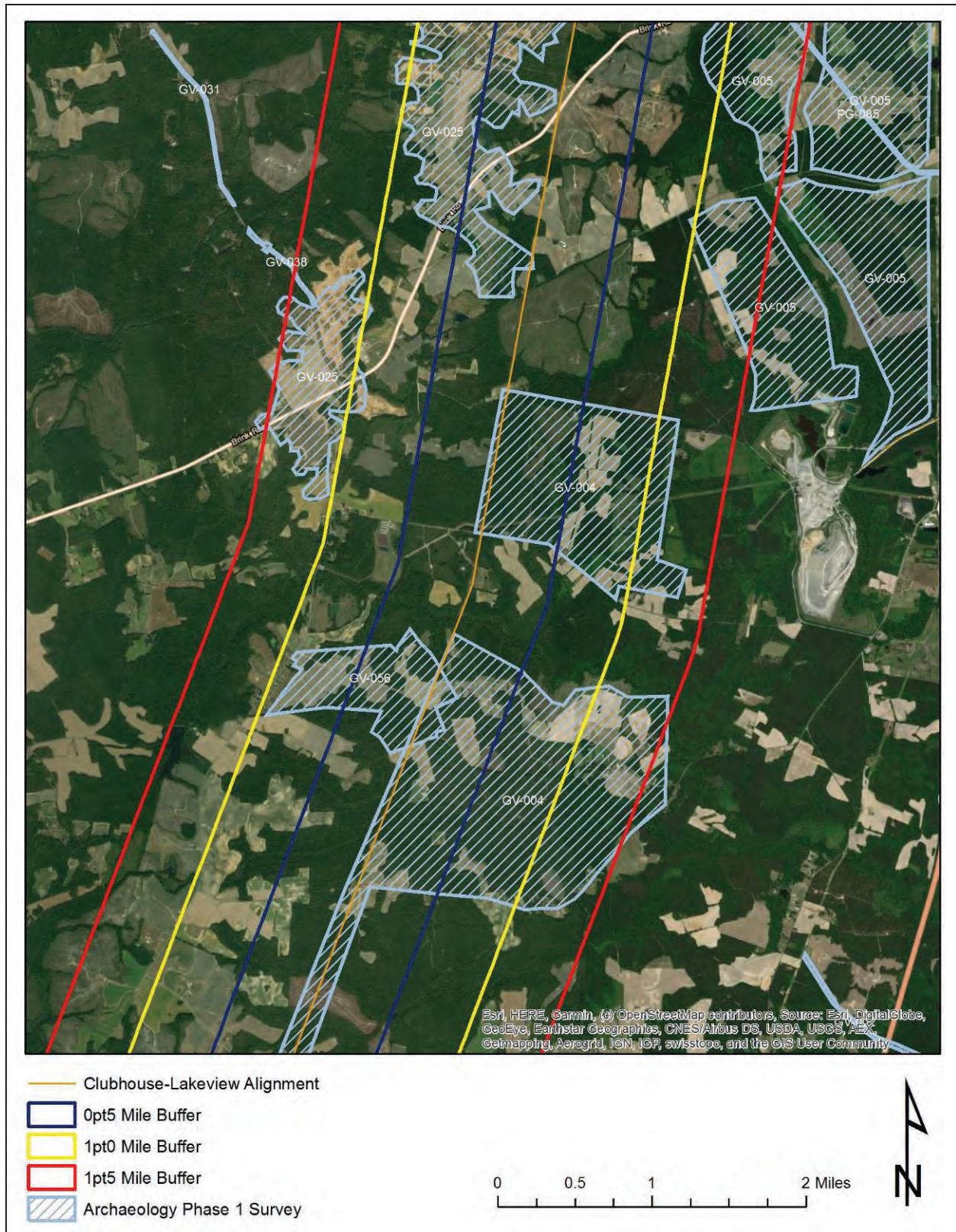


Figure 4-2: Previously conducted phase I surveys within 1-mile of the project area (central portion).
Source: VCRIS

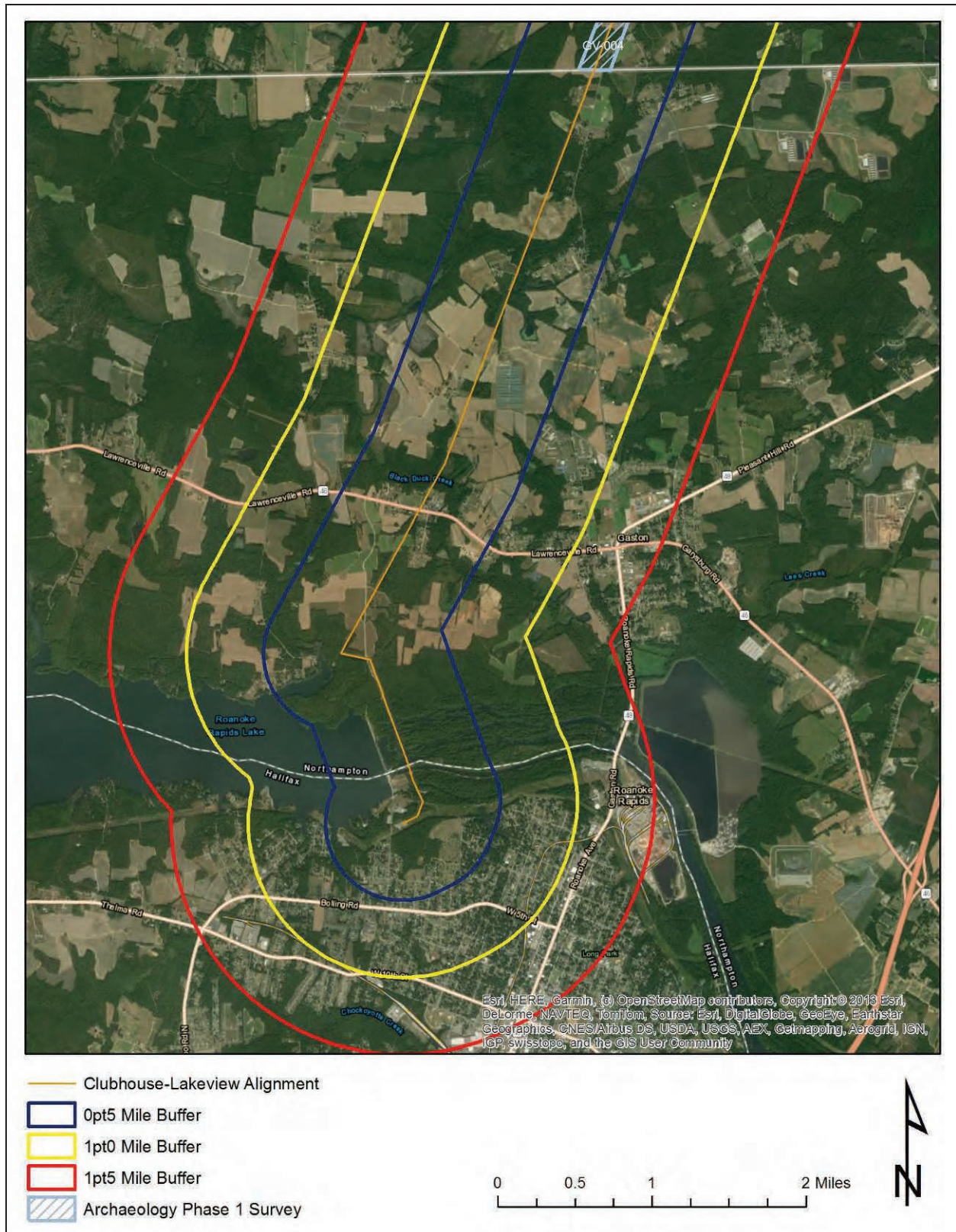


Figure 4-3: Previously conducted phase I surveys within 1-mile of the project area (southern portion).
Source: VCRIS

ARCHITECTURAL RESOURCES

Review of the VDHR VCRIS inventory records revealed a total of 93 previously recorded architectural resources are located within 1.5-miles of the proposed project. Of these, there are no NHLs located within 1.5-miles of the proposed project, no properties listed in the NRHP or battlefields located within 1-mile of the project, and one property that has been determined eligible for listing in the NRHP within 0.5-miles of the project.

The one previously recorded NRHP-eligible property located within one-half mile of the project area is the Chambliss House (VDHR# 040-0010), a c.1838 Greek Revival dwelling that was determined eligible in 1999 for significant associations to the Chambliss family, as well as intact and distinctive architecture.

Table 4-2 provides a list of all previously recorded architectural resources within 1.5-miles of the project area and Table 4-3 lists NRHP-listed and eligible resources within their respective buffered tiers. Maps of all previously recorded architectural resources within 1.5-miles of the project are depicted in Figures 4-4 through 4-6 and maps of NRHP-listed and Eligible resources are found in Figure 4-7 through 4-9.

Table 4-2: Previously recorded architectural resources within 1.5-miles of the project area (bold listings denote sites determined eligible for the NRHP).

VDHR #	Resource Name/ Address	NRHP Status
040-0003	Cedar Lawn (Historic), Chaplin Place (Current Name), House, Brunswick Road (Function/Location)	Not Evaluated
040-0010	Chambliss House (Historic), Woodview (Historic/Current)	DHR Board Det. Eligible
040-0021	House, Route 677 (Function/Location)	Not Evaluated
040-0022	House, Route 677 (Function/Location)	Not Evaluated
040-0025	House, Route 621 (Function/Location)	Not Evaluated
040-0026	House, Route 621 (Function/Location)	Not Evaluated
040-0030	House, Route 650 (Function/Location)	Not Evaluated
040-0031	Hicks House (Historic)	Not Evaluated
040-0032	House, Rt. 679 (Function/Location)	Not Evaluated
040-0033	House, Pine Log Road (Route 633) (Function/Location)	DHR Staff: Not Eligible
040-0034	Gordon-Robinson Cemetery (Historic)	DHR Staff: Not Eligible
040-0035	Farmstead, Pine Log Road (Route 633) (Function/Location)	DHR Staff: Not Eligible
040-0036	Forest Hill Baptist Church (Historic)	DHR Staff: Not Eligible
040-0037	House, 2342 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-0038	House, Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-0039	Hill House (Historic/Current), House, Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-0040	Justice House (Historic/Current)	Not Evaluated
040-0041	Ligon, George B., Store (Historic/Current)	Not Evaluated
040-0044	House, Brink Road (Function/Location)	DHR Staff: Not Eligible
040-0045	Robinson House and Cemetery	DHR Staff: Not Eligible

VDHR #	Resource Name/ Address	NRHP Status
	(Historic/Current), Robinson Place (Historic)	
040-0046	Brink Store (Historic)	DHR Staff: Not Eligible
040-0047	Brink Polling House (Current), Voting House, Brink Road (Function/Location)	DHR Staff: Eligible
040-0048	Brink Ruritan Club (Current), Brink School (Historic)	DHR Staff: Not Eligible
040-0049	House, Route 627 (Function/Location)	DHR Staff: Not Eligible
040-0050	Davis Place (Current)	DHR Staff: Not Eligible
040-0051	House, Route 627 (Function/Location)	DHR Staff: Not Eligible
040-0052	House, Route 627 (Function/Location)	DHR Staff: Not Eligible
040-0053	House, Route 627 (Function/Location)	DHR Staff: Not Eligible
040-0054	House, 135 Independence Church Rd (Rt 633) (Function/Location)	DHR Staff: Not Eligible
040-0055	House, Brink Road (Route 627) (Function/Location)	DHR Staff: Not Eligible
040-0056	House, Pine Log Road/Route 633 (Function/Location)	DHR Staff: Not Eligible
040-0057	House, 750 Pine Log Road (Route 633) (Function/Location)	DHR Staff: Not Eligible
040-0058	House, Route 627 (Function/Location)	DHR Staff: Not Eligible
040-0059	House, Route 627 (Function/Location)	DHR Staff: Not Eligible
040-5001	House, Route 632 (Function/Location)	Not Evaluated
040-5010	Schoolhouse, Rock Bridge Road (Route 639) (Function/Location)	Not Evaluated
040-5014	Round Hill Church (Historic)	Not Evaluated
040-5051	Store/Gas Station, 6838 Brink Rd (Rt 627) (Function/Location)	DHR Staff: Not Eligible
040-5067	Cook Family Cemetery (Descriptive)	Not Evaluated
040-5068	House, 422 Collins Road (Function/Location)	DHR Staff: Not Eligible
040-5126	House, 2501 Rock Bridge Road (Function/Location)	DHR Staff: Not Eligible
040-5128	Outbuilding, 422 Collins Road (Function/Location)	DHR Staff: Not Eligible
040-5129	House, Brink Road (Function/Location)	DHR Staff: Not Eligible
040-5131	House, Hilltop Lane (Function/Location)	DHR Staff: Not Eligible
040-5138	House, Cattail Creek Road (Function/Location)	DHR Staff: Not Eligible
040-5139	House, 6755 Brink Road (Function/Location)	DHR Staff: Not Eligible
040-5143	Dwelling, 100 Lundy Lane (Function/Location)	DHR Staff: Not Eligible
040-5144	Dwelling, 4279 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5145	Dwelling, 4131 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5146	Dwelling, 4070 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5147	Dwelling, 3758 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible

VDHR #	Resource Name/ Address	NRHP Status
040-5148	Dwelling, 3658 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5149	Dwelling, 167 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5150	Dwelling, 239 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5151	Dwelling, 286 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5152	Dwelling, 363 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5153	Dwelling, 383 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5154	Dwelling, 399 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5155	Dwelling, 502 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5156	Dwelling, 410 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5157	Dwelling, 360 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5158	Dwelling, 258 Allen Town Road (Function/Location)	DHR Staff: Not Eligible
040-5159	Dwelling, 3338 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5160	Dwelling, 3294 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5161	Dwelling, 47 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5162	Commercial Building, 63 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5163	Cemetery, Camp Ground Road (Function/Location), James Delbridge Cemetery (Current Name)	DHR Staff: Not Eligible
040-5164	Dwelling, 419 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5165	Dwelling, 423 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5166	Dwelling, 447 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5167	Dwelling, 463 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5168	Dwelling, Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5169	Dwelling, 215 Camp Ground Road (Function/Location)	DHR Staff: Not Eligible
040-5170	Dwelling, Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5171	Dwelling, 2998 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5172	Dwelling, 2830 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5173	Dwelling, 2810 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible

VDHR #	Resource Name/ Address	NRHP Status
040-5174	Dwelling, 2706 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5175	Dwelling, Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5176	Dwelling, 2540 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5177	Dwelling, 46 Bob White Court (Function/Location)	DHR Staff: Not Eligible
040-5178	Dwelling, 2502 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5179	Dwelling, 2418 Dry Bread Road (Function/Location)	DHR Staff: Not Eligible
040-5180	Dwelling, Lundy Road (Function/Location)	DHR Staff: Not Eligible
040-5199	House, 2494 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5200	House, 2315 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5201	House, 1863 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5202	House, 1735 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5203	House, 1491 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5204	House, 1290 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5205	House, 858 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5206	House, 695 Pine Log Road (Function/Location)	DHR Staff: Not Eligible
040-5207	House, 570 Pine Log Road (Function/Location)	DHR Staff: Not Eligible

Table 4-3: Previously recorded architectural resources within their respective tiered buffer zones for the Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	N/A
1.0	National Register Properties (Listed)	None	N/A
	Battlefields	None	N/A
	Historic Landscapes	None	N/A
0.5	National Register-Eligible	040-0010	Chambliss House (Historic), Woodview (Historic/Current)

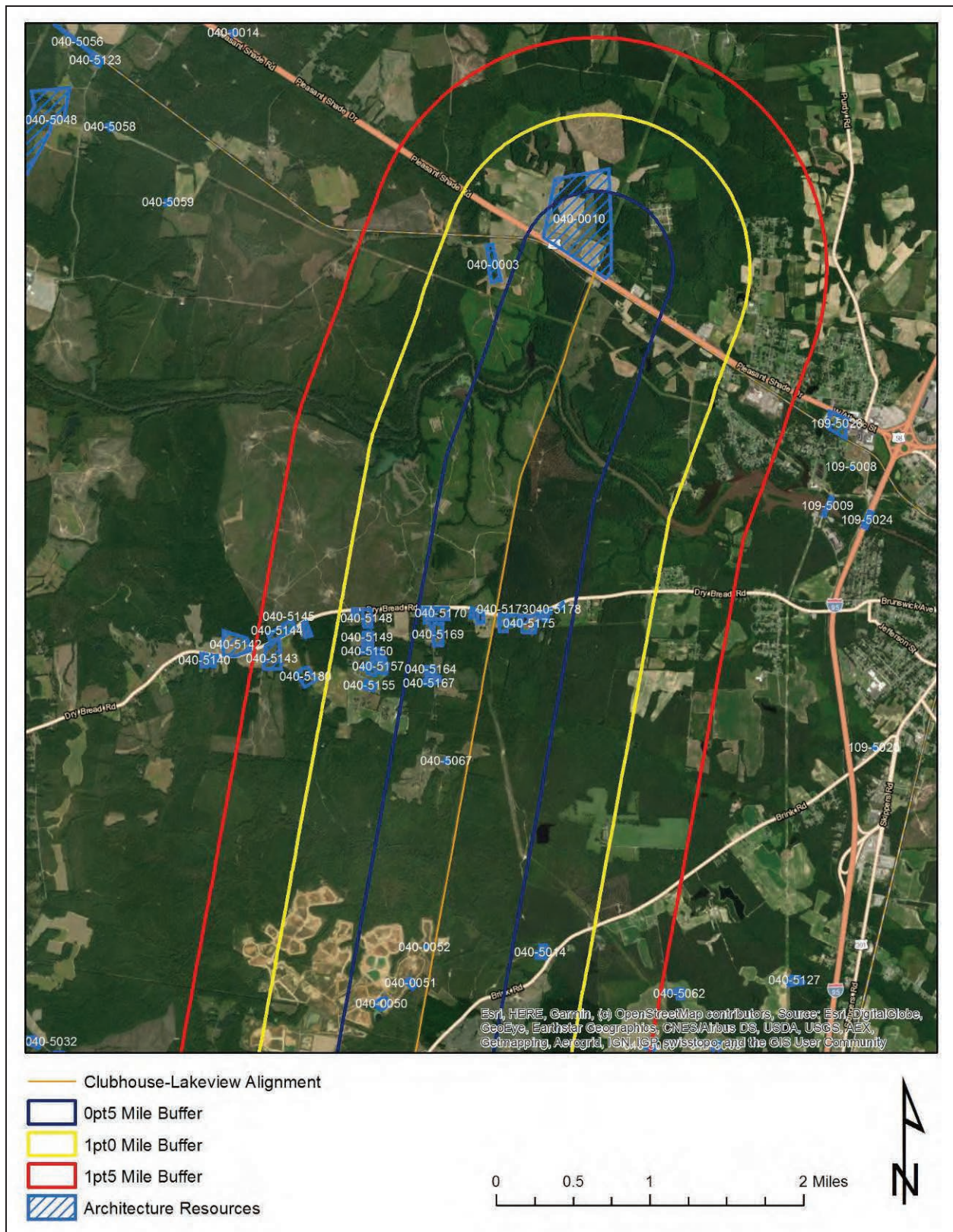


Figure 4-4: All previously identified architectural resources within 1.5-miles of the project area (northern portion). Source: VCRIS

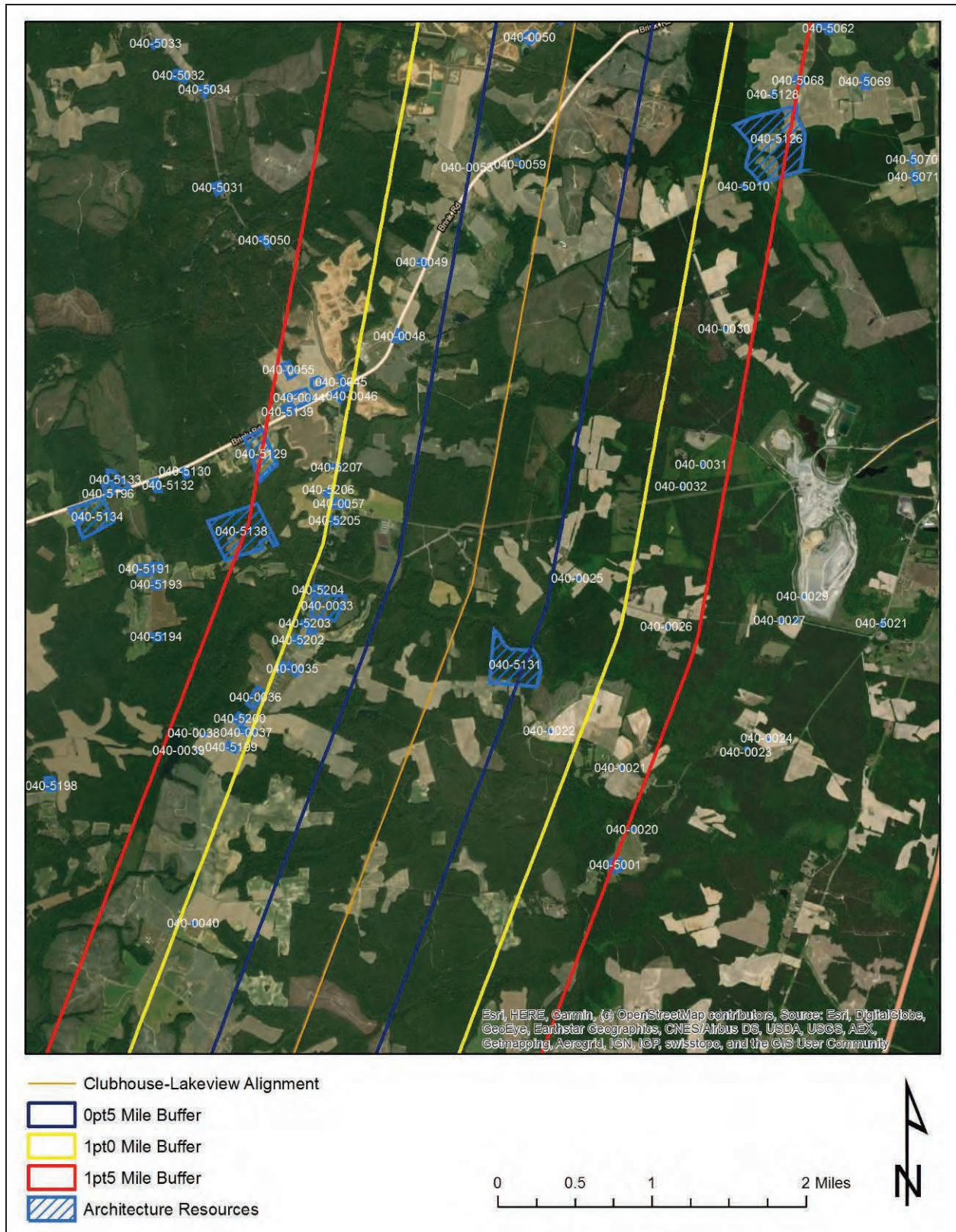


Figure 4-5: All previously identified architectural resources within 1.5-miles of the project area (central portion). Source: VCRIS

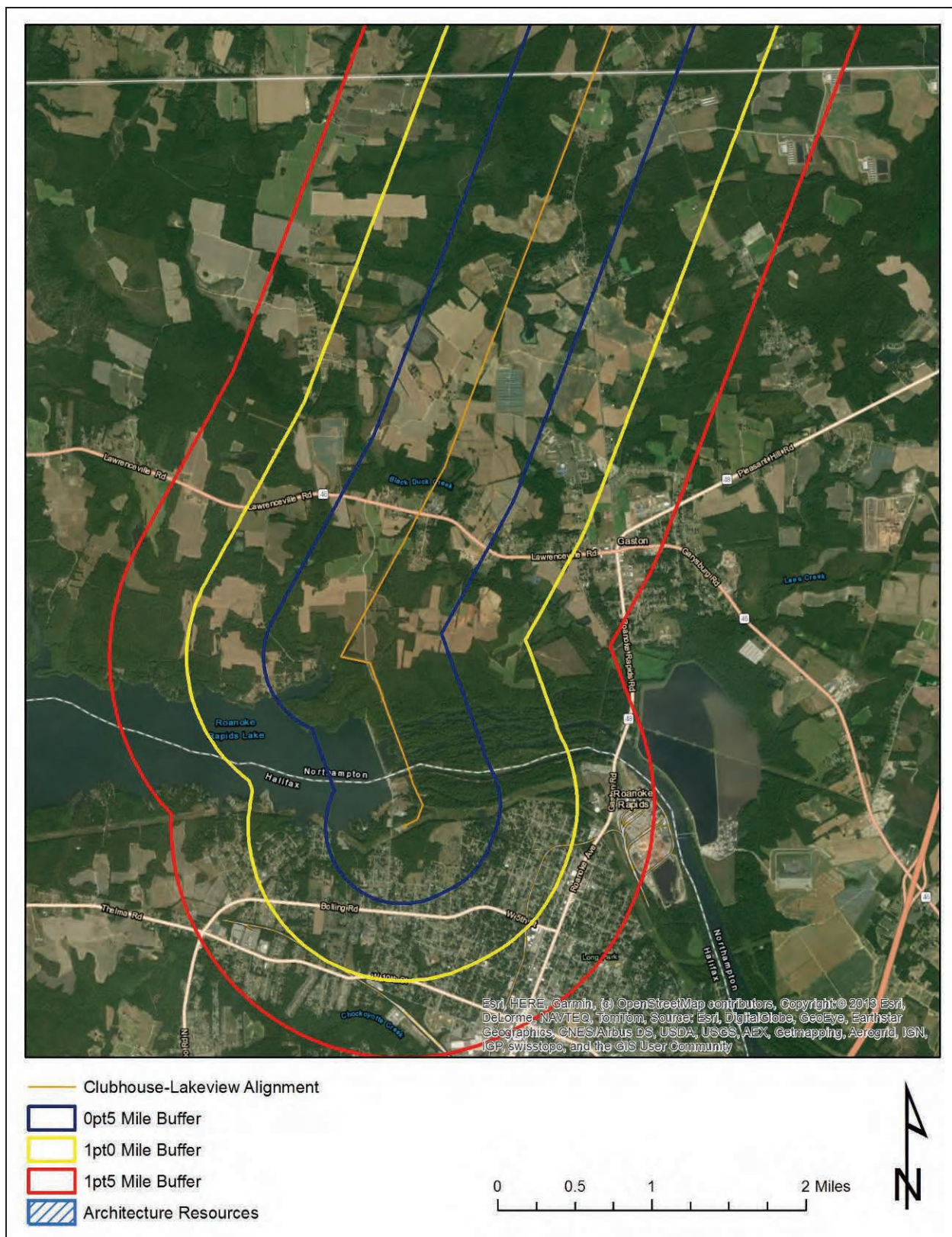


Figure 4-6: All previously identified architectural resources within 1.5-miles of the project area (southern portion). Source: VCRIS

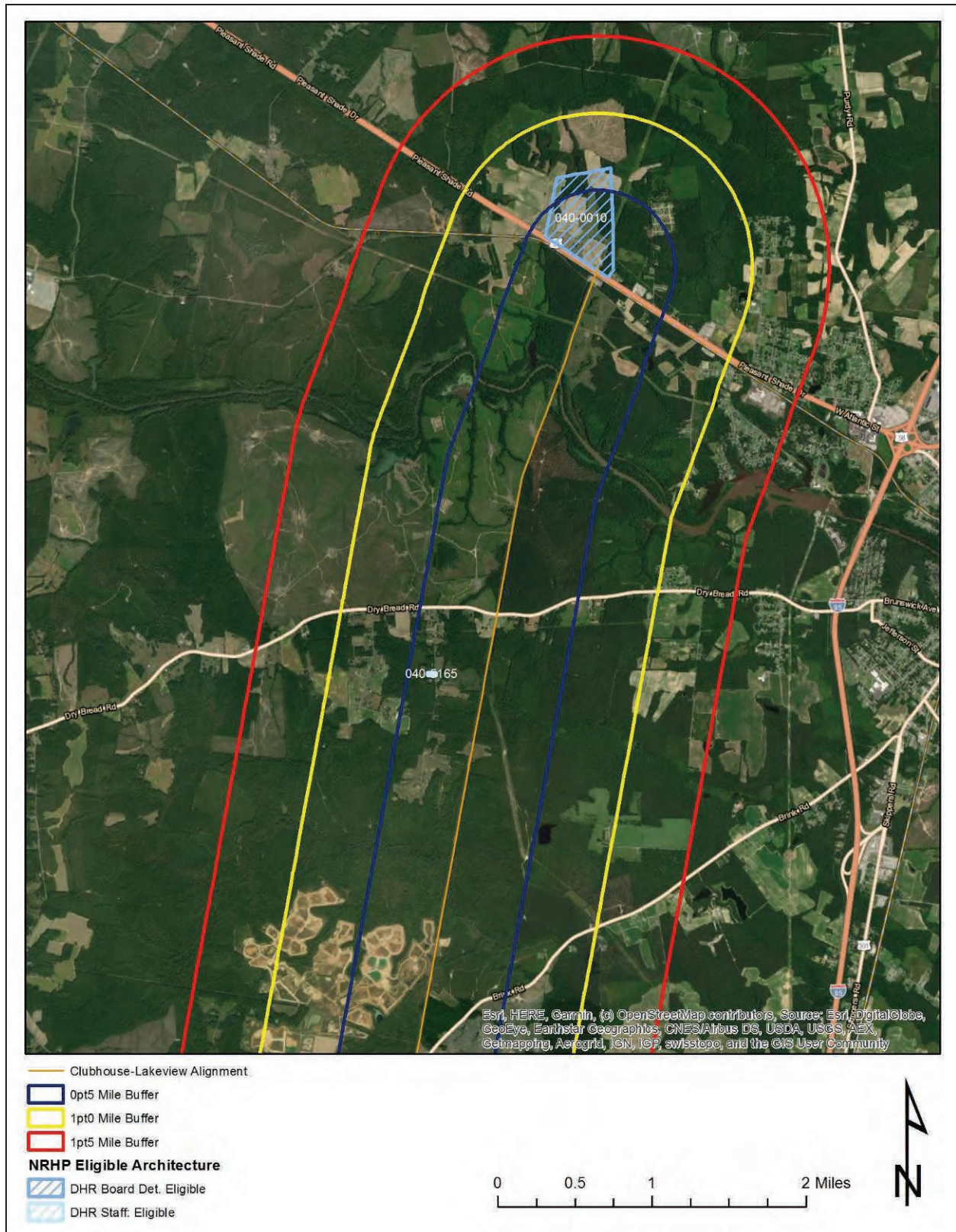


Figure 4-7: NRHP-Listed and Eligible architectural resources within 1.5-miles of the project area (northern portion). Source: VCRIS



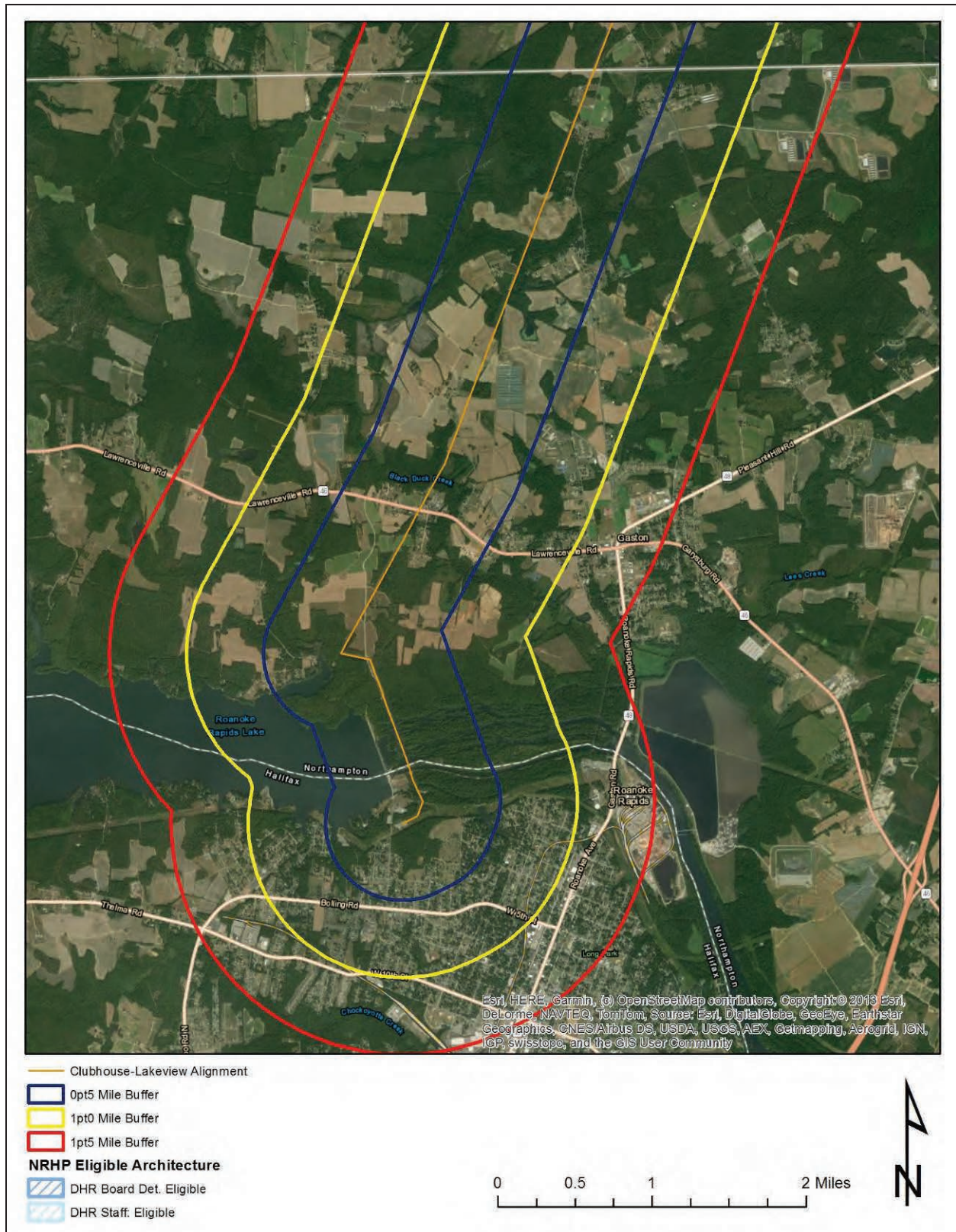


Figure 4-9: NRHP-Listed and Eligible architectural resources within 1.5-miles of the project area (southern portion). Source: VCRIS

ARCHAEOLOGICAL SITES

Review of the VDHR VCRIS records reveals there are one-hundred-twenty (120) previously recorded archaeological sites within one mile of the project area. Eighteen (18) of these sites are located directly within or adjacent to the project area (within 100 feet of the project centerline). Of the sites within one mile, four have been determined potentially eligible for listing in the NRHP, 23 have been determined not eligible, and the remaining have not been formally evaluated. The sites within or adjacent to the project area primarily consist of prehistoric lithic scatters, camps, and occupation sites. There is also one historic-period domestic site and two artifact scatters. None of the sites within or adjacent to the project area have been previously determined eligible for listing in the NRHP. The two Reconstruction-era artifact scatters have been determined not eligible for listing in the NRHP by the VDHR, and the remaining sites have not been formally evaluated.

Table 4-4 lists the previously recorded archaeological resources within one-mile of the project area and Table 4-5 lists previously recorded sites that located within or adjacent to the project area (within 100 feet of the centerline). Figures 4-10 through 4-12 illustrates the locations of the previously recorded sites in relation to the project area.

Table 4-4: Previously recorded archaeological resources within one mile of the project area. Bold listings denote sites determined eligible for the NRHP. Orange highlight denotes site is located within or adjacent to the project area

VDHR ID #	Site Category	Site Type	Temporal Association	NRHP Status
44GV0090	Domestic	Camp, temporary	Historic/Unknown, Middle Archaic (6500 - 3001 B.C.), Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0091	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0092	Domestic	Hamlet	Archaic (8500 - 1201 B.C.)	Not Evaluated
44GV0093	Domestic	Dwelling, single	<Null>	Not Evaluated
44GV0094	Domestic	Camp, temporary	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0095	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0104	Domestic, Funerary	Camp, temporary, Cemetery	Middle Archaic (6500 - 3001 B.C.), 19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)	Not Evaluated
44GV0105	<Null>	<Null>	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0106	Domestic	Camp, temporary	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0107	<Null>	<Null>	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0108	<Null>	<Null>	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0109	Domestic	Camp, temporary, Dwelling, single	Late Archaic (3000 - 1201 B.C.)	Not Evaluated
44GV0110	DSS Legacy, Industry/Processing/Extraction	Lithic quarry, Lithic workshop	Middle Archaic (6500 - 3001 B.C.), Late Archaic (3000 - 1201 B.C.), Woodland (1200 B.C. - 1606 A.D.)	Not Evaluated

VDHR ID #	Site Category	Site Type	Temporal Association	NRHP Status
44GV0111	Domestic	Camp, temporary	Woodland (1200 B.C. - 1606 A.D.)	Not Evaluated
44GV0112	Domestic	Camp, temporary	Early Archaic (8500 - 6501 B.C.)	Not Evaluated
44GV0113	Domestic	Camp, temporary	Archaic (8500 - 1201 B.C.)	Not Evaluated
44GV0114	Domestic	Camp, temporary	Late Archaic (3000 - 1201 B.C.), Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0115	Domestic	Dwelling, single	Historic/Unknown, Late Archaic (3000 - 1201 B.C.)	Not Evaluated
44GV0116	Domestic	Camp, temporary	Late Archaic (3000 - 1201 B.C.), Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0117	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0118	Domestic	Camp, temporary	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0119	Domestic	Camp, temporary	Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0120	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0124	<Null>	<Null>	Archaic (8500 - 1201 B.C.), Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0125	Domestic	Camp, temporary	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0126	Domestic	Camp, temporary	Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0127	Domestic	Camp, temporary	Late Woodland (1000 - 1606)	Not Evaluated
44GV0128	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0129	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0130	Domestic	Dwelling, single	<Null>	Not Evaluated
44GV0131	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0134	Domestic	Camp, temporary	Early Archaic (8500 - 6501 B.C.)	Not Evaluated
44GV0135	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0136	Domestic, DSS Legacy	Dwelling, single, Other	Historic/Unknown	Not Evaluated
44GV0137	Domestic	Camp, temporary	Early Archaic (8500 - 6501 B.C.)	Not Evaluated
44GV0138	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0139	Domestic	Camp, temporary	<Null>	Not Evaluated
44GV0140	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0141	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0142	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0143	Domestic	Camp, temporary	Late Woodland (1000 - 1606)	Not Evaluated
44GV0144	Domestic	Camp, temporary	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0147	Domestic	Hamlet	Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0148	Domestic	Hamlet	Middle Archaic (6500 - 3001 B.C.), Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0151	Domestic	Camp, temporary	Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0152	Domestic	Camp, temporary	Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0153	Domestic	Camp, temporary	Middle Woodland (300 - 999 A.D.)	Not Evaluated

VDHR ID #	Site Category	Site Type	Temporal Association	NRHP Status
44GV0154	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0155	Domestic, DSS Legacy	Camp, temporary, Other	Historic/Unknown, Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0156	Domestic	Dwelling, single	Historic/Unknown, Late Archaic (3000 - 1201 B.C.)	Not Evaluated
44GV0157	Domestic	Camp, temporary	<Null>	Not Evaluated
44GV0159	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0160	Domestic	Camp, temporary, Dwelling, single	Historic/Unknown, Paleo-Indian (15000 - 8501 B.C.), Early Archaic (8500 - 6501 B.C.)	Not Evaluated
44GV0161	Domestic	Camp, temporary	Late Woodland (1000 - 1606)	Not Evaluated
44GV0162	Domestic, DSS Legacy	Dwelling, single, Other	Historic/Unknown, Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0163	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0164	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0165	Domestic	Camp, temporary, Dwelling, single	Historic/Unknown, Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0167	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0168	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0202	Domestic	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0203	Domestic	Camp, temporary	Middle Woodland (300 - 999 A.D.)	Not Evaluated
44GV0204	Domestic	Farmstead	19th Century (1800 - 1899), 20th Century: 1st half (1900 - 1949)	Not Evaluated
44GV0262	DSS Legacy	Camp	Middle Archaic (6500 - 3001 B.C.), Late Archaic (3000 - 1201 B.C.), Woodland (1200 B.C. - 1606 A.D.)	Not Evaluated
44GV0263	DSS Legacy	Camp	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	Not Evaluated
44GV0264	DSS Legacy	Camp	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0265	DSS Legacy	Camp	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0266	Domestic	Dwelling, single	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 20th Century (1900 - 1999)	Not Evaluated
44GV0269	DSS Legacy	Camp	Early Archaic (8500 - 6501 B.C.)	Not Evaluated
44GV0270	DSS Legacy	Camp	Woodland (1200 B.C. - 1606 A.D.)	Not Evaluated
44GV0271	DSS Legacy	Camp	Woodland (1200 B.C. - 1606 A.D.)	Not Evaluated
44GV0272	DSS Legacy	Camp	<Null>	Not Evaluated
44GV0273	DSS Legacy	Railroad bed	19th Century (1800 - 1899)	Not Evaluated
44GV0274	Domestic	Camp, temporary	Woodland (1200 B.C. - 1606 A.D.)	DHR Staff: Eligible
44GV0275	Domestic	Camp, temporary	Middle Archaic (6500 - 3001 B.C.)	Not Evaluated
44GV0279	DSS Legacy, Subsistence/A	Mill, Well	20th Century: 1st half (1900 - 1949)	Not Evaluated

VDHR ID #	Site Category	Site Type	Temporal Association	NRHP Status
	griciculture			
44GV0281	DSS Legacy	Mill	20th Century: 2nd half (1950 - 1999)	Not Evaluated
44GV0282	Domestic, Subsistence/Agriciculture	Dwelling, single, Well	<Null>	DHR Staff: Not Eligible
44GV0283	Domestic	Dwelling, single	19th Century: 4th quarter (1875 - 1899)	Not Evaluated
44GV0287	Domestic	Dwelling, single	19th Century (1800 - 1899)	Not Evaluated
44GV0288	Domestic	Farmstead	20th Century (1900 - 1999)	Not Evaluated
44GV0289	Domestic, Funerary	Cemetery, Dwelling, single	19th Century (1800 - 1899), 20th Century (1900 - 1999)	DHR Staff: Not Eligible
44GV0290	Domestic	Farmstead	18th Century: 4th quarter (1775 - 1799), 19th Century: 1st quarter (1800 - 1825)	DHR Staff: Not Eligible
44GV0291	Domestic	Dwelling, single	20th Century (1900 - 1999)	Not Evaluated
44GV0292	Domestic	Farmstead	18th Century: 4th quarter (1775 - 1799), 19th Century (1800 - 1899), 20th Century (1900 - 1999)	Not Evaluated
44GV0293	Domestic, Subsistence/Agriciculture	Farmstead, Outbuilding	<Null>	Not Evaluated
44GV0294	Domestic	Dwelling, single	19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)	Not Evaluated
44GV0295	Domestic	Dwelling, single	19th Century (1800 - 1899)	Not Evaluated
44GV0296	DSS Legacy	Trash scatter	19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)	Not Evaluated
44GV0297	Domestic	Dwelling, single	19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)	Not Evaluated
44GV0298	DSS Legacy	Trash scatter	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century: 4th quarter (1875 - 1899)	Not Evaluated
44GV0299	Domestic	Dwelling, single	20th Century: 1st quarter (1900 - 1924)	Not Evaluated
44GV0300	Domestic, Funerary, Subsistence/Agriciculture	Cemetery, Dwelling, single, Outbuilding	19th Century: 1st quarter (1800 - 1825), 20th Century (1900 - 1999)	Not Evaluated
44GV0301	Domestic, DSS Legacy	Dwelling, single, Trash scatter	20th Century: 2nd/3rd quarter (1925 - 1974)	Not Evaluated
44GV0302	Domestic	Dwelling, single	20th Century: 1st half (1900 - 1949)	DHR Staff: Eligible
44GV0312	Domestic	Farmstead	20th Century (1900 - 1999)	Not Evaluated
44GV0340	DSS Legacy	Railroad bridge	19th Century: 4th quarter (1875 - 1899), 20th Century: 1st half (1900 - 1949)	DHR Staff: Not Eligible
44GV0373	Domestic	Camp, base	Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E)	DHR Evaluation Committee: Eligible
44GV0378	Industry/Processing/Extraction	Lithic scatter	Pre-Contact	DHR Staff: Not Eligible
44GV0394	Funerary	Cemetery	The New Dominion (1946 - 1991), Post Cold War (1992 - Present)	DHR Staff: Not Eligible

VDHR ID #	Site Category	Site Type	Temporal Association	NRHP Status
44GV0398	Domestic	Artifact scatter	Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991), Post Cold War (1992 - Present)	DHR Staff: Not Eligible
44GV0406	Domestic, Funerary	Cemetery, Dwelling, single	Colony to Nation (1751 - 1789), Early National Period (1790 - 1829), Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916)	DHR Staff: Potentially Eligible
44GV0407	Domestic	Artifact scatter, Camp, base	Early Archaic Period (8500 - 6501 B.C.E), Middle Archaic Period (6500 - 3001 B.C.E), Late Archaic Period (3000 - 1201 B.C.E), Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E), Late Woodland (1000 - 1606), Early National Period (1790 - 1829), Antebellum Period (1830 - 1860)	DHR Evaluation Committee: Not Eligible
44GV0409	Industry/Processing/Extraction	Lithic scatter	Early Archaic Period (8500 - 6501 B.C.E)	DHR Evaluation Committee: Not Eligible
44GV0410	Industry/Processing/Extraction	Lithic workshop	Early Archaic Period (8500 - 6501 B.C.E)	DHR Evaluation Committee: Not Eligible
44GV0411	Domestic	Artifact scatter	Early Woodland (1200 B.C.E - 299 C.E), Middle Woodland (300 - 999 C.E), Late Woodland (1000 - 1606)	DHR Staff: Not Eligible
44GV0415	Domestic	Dwelling, single	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	DHR Evaluation Committee: Not Eligible
44GV0416	Industry/Processing/Extraction	Lithic scatter	Pre-Contact	DHR Staff: Not Eligible
44GV0418	Domestic	Dwelling, single	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44GV0419	Domestic	Artifact scatter	Pre-Contact	DHR Staff: Not Eligible
44GV0420	Domestic	Dwelling, single	World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44GV0422	Domestic	Artifact scatter	Pre-Contact	DHR Staff: Not Eligible
44GV0423	Domestic	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44GV0441	Domestic	Artifact scatter	Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and	Not Evaluated

VDHR ID #	Site Category	Site Type	Temporal Association	NRHP Status
			Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	
44GV0452	Domestic	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	DHR Staff: Not Eligible
44GV0453	Indeterminate	Artifact scatter	Pre-Contact	DHR Staff: Not Eligible
44GV0454	Domestic	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	DHR Staff: Not Eligible
44GV0455	Indeterminate	Artifact scatter	Pre-Contact	DHR Staff: Not Eligible
44GV0456	Domestic	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	DHR Staff: Not Eligible
44GV0457	Domestic	Artifact scatter	Colony to Nation (1751 - 1789), Early National Period (1790 - 1829), Antebellum Period (1830 - 1860)	DHR Staff: Not Eligible

Table 4-5: Previously recorded archaeological sites within or adjacent to the project area for the Line 254 Clubhouse-Lakeview Rebuild project as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
0.0 (within or adjacent to ROW)	Archaeological Sites	44GV0095	Camp, temporary - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0104	Camp, temporary, Cemetery - Middle Archaic (6500 - 3001 B.C.), 19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)
		44GV0106	Camp, temporary - Middle Archaic (6500 - 3001 B.C.)
		44GV0107	<Null> - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0108	<Null> - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0128	Camp, temporary - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0153	Camp, temporary - Middle Woodland (300 - 999 A.D.)

Buffer(miles)	Considered Resources	VDHR #	Description
		44GV0154	Camp, temporary - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0159	Camp, temporary - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0161	Camp, temporary - Late Woodland (1000 - 1606)
		44GV0162	Dwelling, single, Other - Historic/Unknown, Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0163	Camp, temporary - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0262	Camp - Middle Archaic (6500 - 3001 B.C.), Late Archaic (3000 - 1201 B.C.), Woodland (1200 B.C. - 1606 A.D.)
		44GV0263	Camp - Prehistoric/Unknown (15000 B.C. - 1606 A.D.)
		44GV0264	Camp - Middle Archaic (6500 - 3001 B.C.)
		44GV0265	Camp - Middle Archaic (6500 - 3001 B.C.)
		44GV0423	Artifact scatter - Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)
		44GV0454	Artifact scatter - Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)

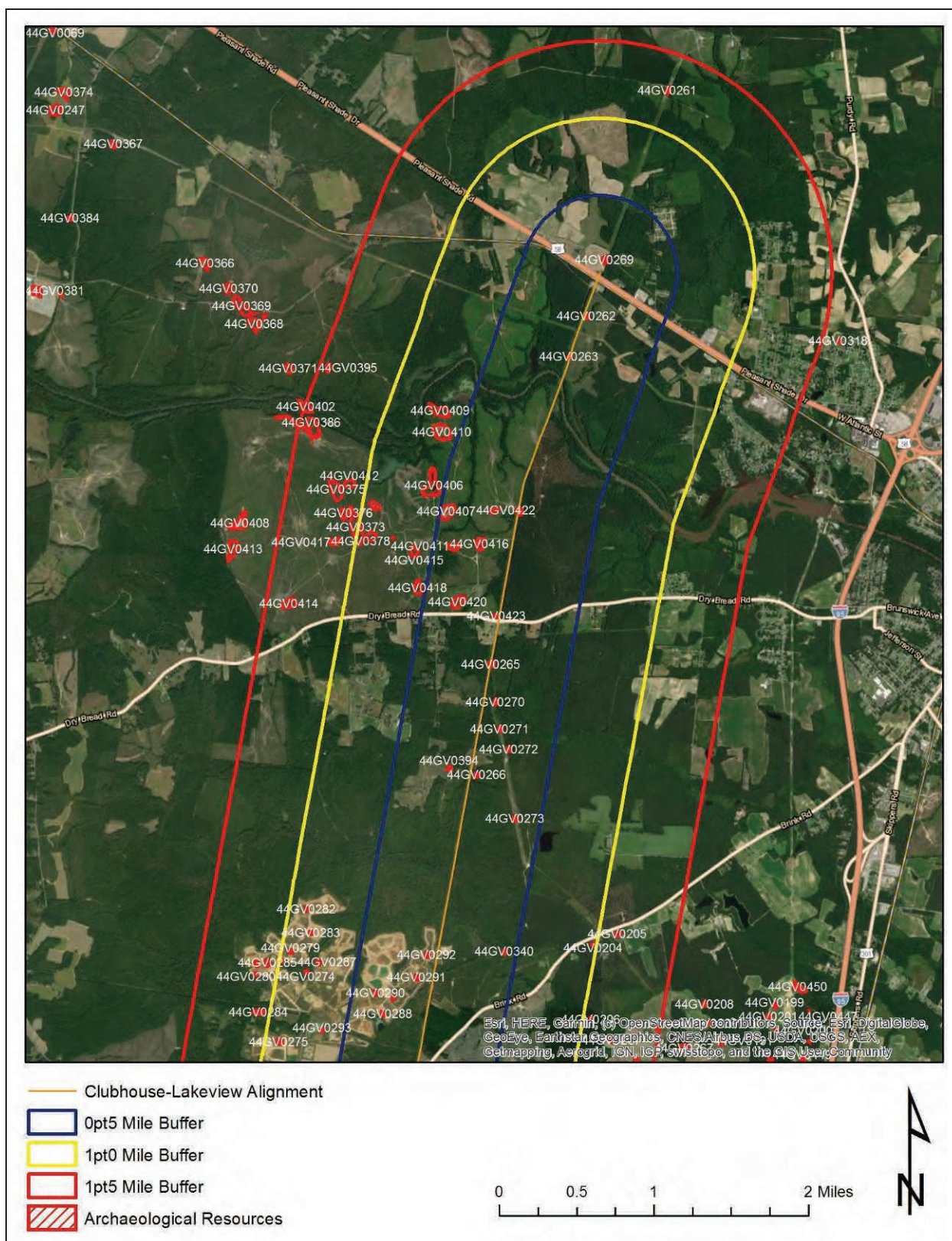


Figure 4-10: Previously recorded archaeological resources located within 1- mile of project area (northern portion. Source: VCRIS)

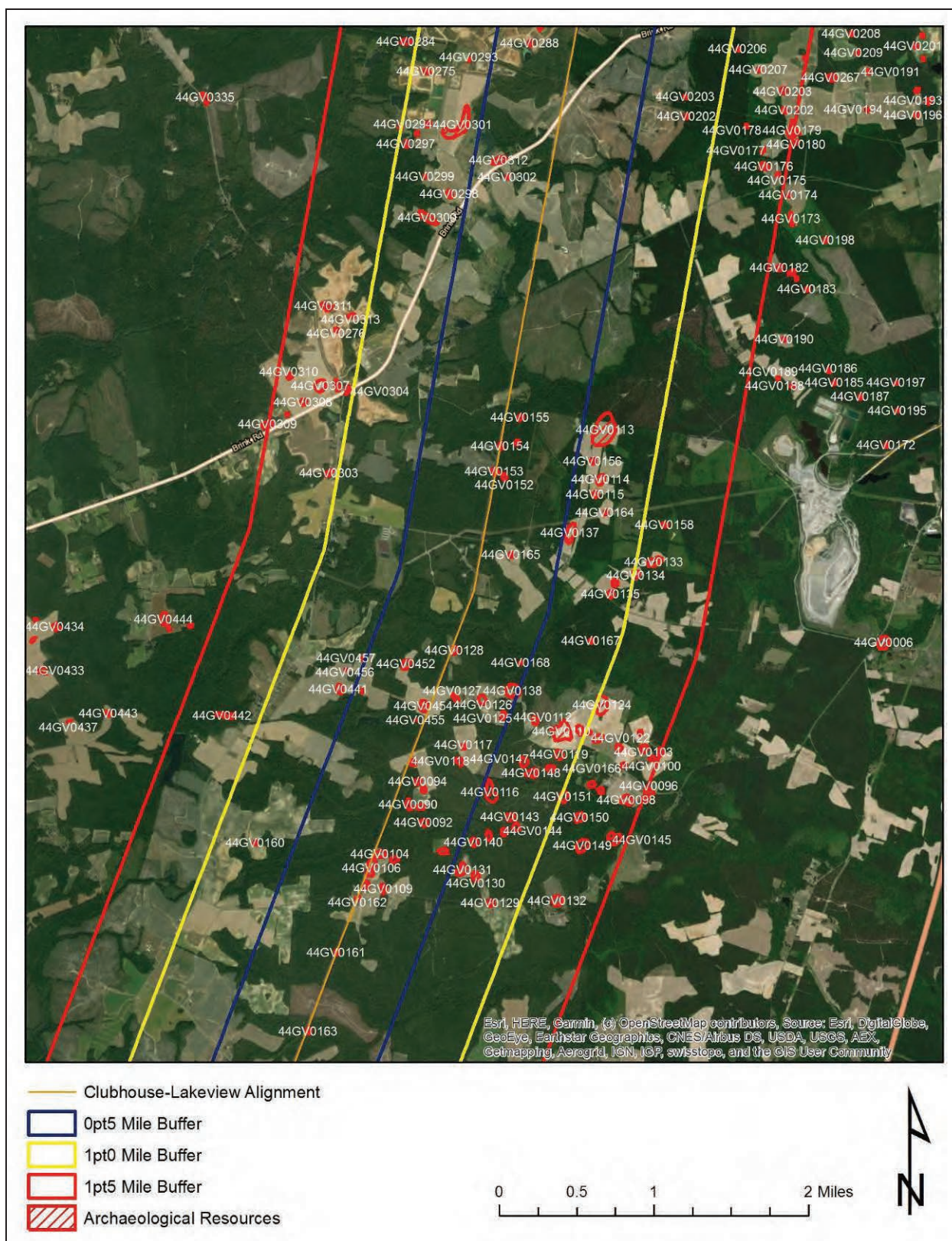


Figure 4-11: Previously recorded archaeological resources located within 1- mile of project area (central portion). Source: VCRIS

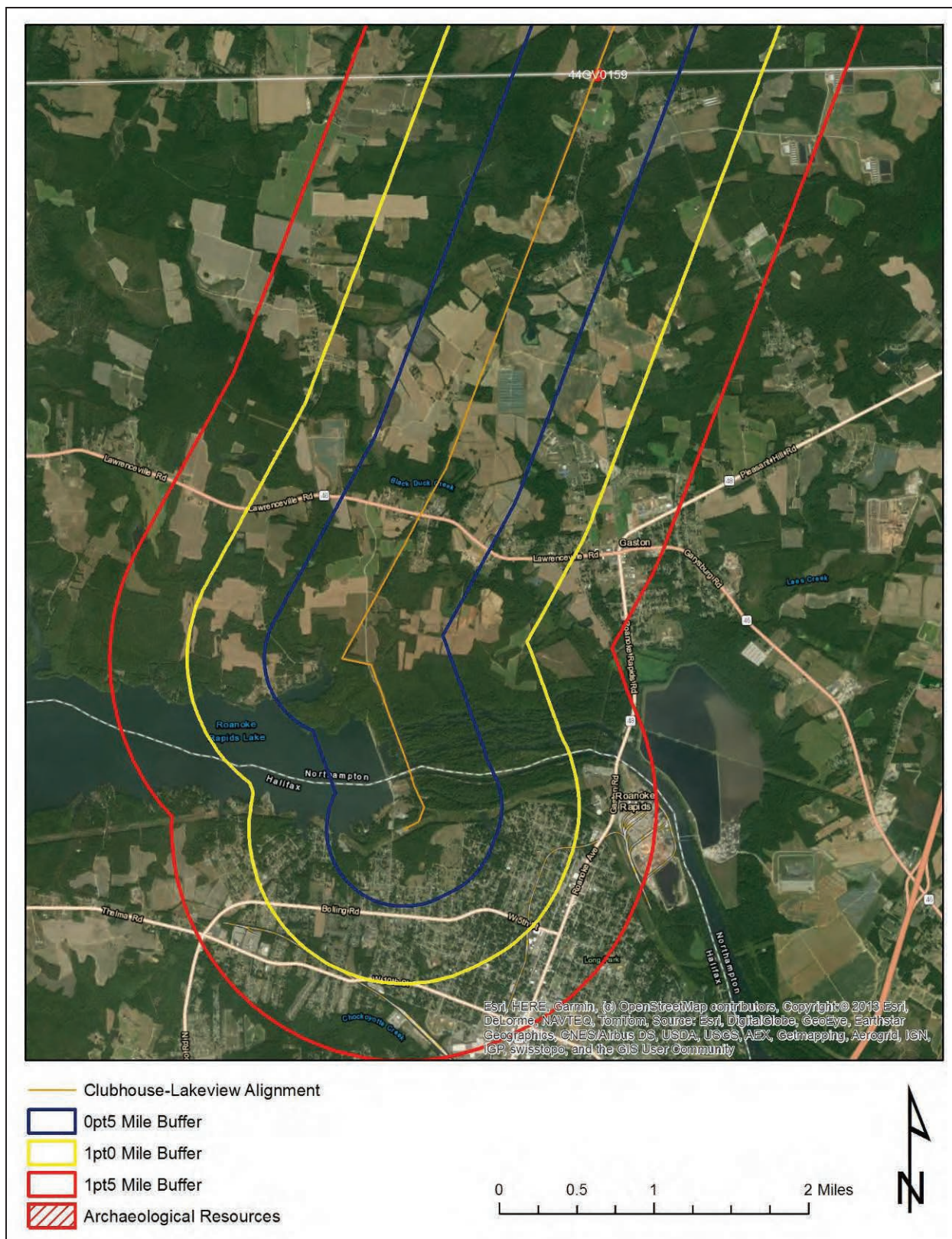


Figure 4-12: Previously recorded archaeological resources located within 1- mile of project area (southern portion). Source: VCRIS

NPS AMERICAN BATTLEFIELD PROTECTION PROGRAM (ABPP)

A review of the NPS ABPP records and maps prepared by the Civil War Sites Advisory Commission (CWSAC) revealed no portions of any noted battlefield are located within one mile of the project area.

5. RESULTS OF FIELD RECONNAISSANCE

In accordance with the VDHR guidelines for assessing impacts of proposed electric transmission lines on historic resources, each of the previously recorded historic architectural properties either listed or determined eligible for listing in the NRHP located within 1-mile or 0.5 miles of the project were field verified for existing conditions and photo documented. Archaeological sites were not subject to inspection or verification as part of this effort. The results of the field reconnaissance for each resource are summarized below.

Chambliss House (VDHR ID# 040-0010)

The Chambliss House, also known as Woodview, is a Greek Revival-styled dwelling believed to have been built in 1838. The home's first owner was Brigadier General John R. Chambliss, a noted Confederate Civil War commander who was killed in battle on August 16 1864. His grave is located on the property and marked by a marble slab given by General Robert E. Lee. The home was passed down through the Chambliss family, and remained owned by the family as of 1999. The home is set on a large rural property with a small collection of outbuildings. It represents an intact and notable example of early-nineteenth century architecture in the county, and is also significant for its association to the Chambliss family. The property was determined eligible for listing in the NRHP in 1999 and was subsequently subject to a historic rehabilitation tax credit project.

The Chambliss House is located on a 118-acre property at 1855 Pleasant Shade Drive (Route 58) in the Emporia vicinity of Greensville County. The home is set upon a slight knoll roughly one-quarter of a mile back from the road. It rests on a grassy home site shaded by mature trees with a line of vegetative screening along the front of the yard. The several associated outbuildings are set within the yard to the rear of the house and the building complex is bordered by open agricultural fields beyond.

The project area is located to the southeast of the Chambliss House. Although the corner of the property is located directly across US-58 from the northern terminus of the project alignment, the house itself is set over 0.26 miles away. The project's northern terminus is at an existing substation across US-58 from the property and extends away from the property through a wooded area to the south. Another portion of the existing transmission line extends north from the substation, across the road and through the agricultural fields in the eastern edge of the Chambliss House property.

In order to assess the potential impact of the proposed project, visual inspection and ground-based digital photography was conducted of the setting around the resource property with emphasis on views towards the project area to document existing setting, sitelines, and viewshed. This assessment found that the rural setting of the property is generally intact with some modern change and intrusion. US-58 which the home is located along is a twentieth century highway that is now a wide, four-lane divided highway. This route was built between the Chambliss House property and the nineteenth century Norfolk and Western Railroad corridor beyond. The driveway in front of the house historically crossed the railroad to Brunswick Road beyond, however, this length was removed when US-58 was built and the home no longer has

connectivity or visibility of the rail line and older road because of the highway and the bordering treeline. The setting and viewshed to the east of the house also includes the presence of an existing transmission line corridor that crosses through the fields to the east of the home. This power line was built in the early-twentieth century.

A substation was built along the line across US-58 from the Chambliss House property in the 1970s and is the beginning point of the Line 254 Clubhouse-Lakeview Rebuild project. The portion of the line extending to the south is included in the rebuild project, while the length to the north, including the portion that runs through the Chambliss House property will not be rebuilt or otherwise modified as part of this project. Inspection from the Chambliss House driveway and points along US-58 in front of the property revealed that the portion of the transmission line north of the highway that is not subject to this rebuild is visible from most vantage points. It crosses open agricultural field to the east of the house without visual obstruction. As it extends beyond the property to the north, it crosses through a treeline where it becomes screened from visibility. Inspection also revealed that the length of the line south of the substation and subject to this rebuild effort is not visible from most locations throughout and bordering the property. Both the substation and existing line are bordered by thick wooded areas to both sides that completely screen it from the homesite, driveway, and most publicly-accessible locations along US-58 with the exception of views from immediately beneath the existing transmission line corridor.

The intervening wooded areas that screen the project alignment from the house and property are spread across multiple properties and border the Norfolk and Western Railroad Corridor, Brunswick Road, and a large private property parcel beyond. None of these wooded areas are included within the project area or will be cleared or trimmed as part of the rebuild effort. As such, views from the house and property following the rebuild are likely to be similar, with no visibility of the rebuilt transmission line. The nearest transmission line structure to the property is located directly within the substation and will not be replaced as part of the rebuild. The existing structure, which is currently not visible, is a concrete monopole at 80-feet tall above ground level. The next three structures in proximity to the property are currently wood H-frame structures at 59, 69, and 67-feet tall respectively, and will be replaced with weathering steel H-frame structures at 61, 79, and 79-feet tall respectively. As the proposed increased height of these structures will be shorter than the existing 80-feet tall structure within the substation that is not currently visible, it is anticipated that these structures will likewise remain not visible. This was confirmed with photo simulation that reveals all proposed structures will remain beneath the treeline and not visible. At the third structure, the transmission line perpendicularly crosses another transmission line ROW which is also currently not visible from the property, and therefore it is anticipated that there will continue to be no visibility of the portion of the rebuild alignment beyond that corridor.

As such, the Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project is not anticipated to increase visibility of the existing transmission line or otherwise introduce any new or substantially different character or qualities into the viewshed of or from the Chambliss House property. The project alignment is currently not visible from the home or property and will likely continue to be screened by intervening vegetation as the nearest structures will continue to be shorter than an existing substation structure that is not currently

visible. Therefore, it is D+A's opinion that the proposed Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project will have no more than a *minimal impact* on the Chambliss House.

Figure 5-1 depicts the location of the resource relation to the project alignment and viewshed buffers, and Figure 5-2 illustrates the location of structures to be replaced as part of this project in relation to the resource. Figure 5-3 illustrates the location and direction of all photographs and views. Figures 5-3 through 5-14 are representative photographs of the property, as well as those taken from locations within the property towards the project alignment.

RESULTS OF FIELD RECONNAISSANCE

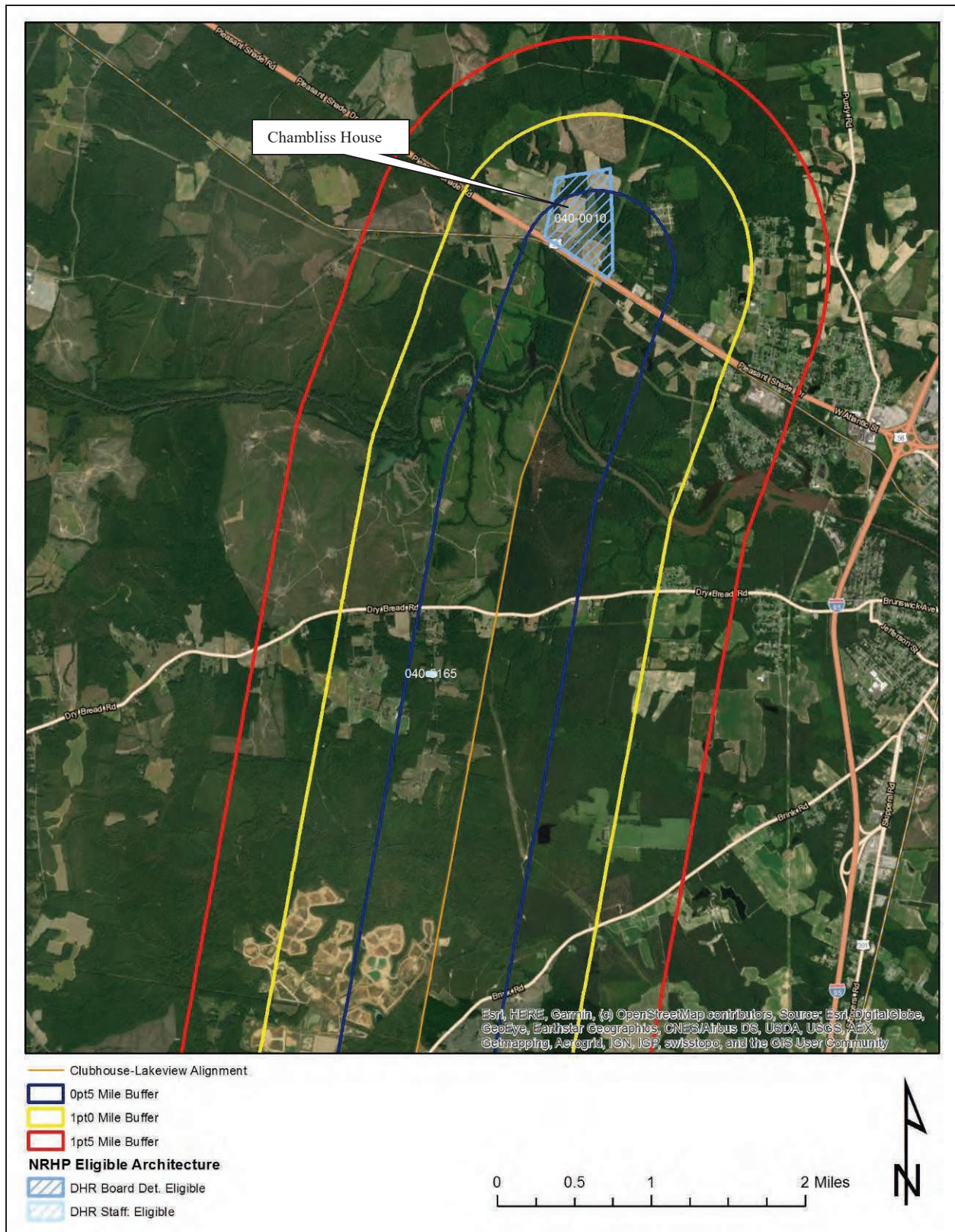


Figure 5-1: Chambliss House in relation to the project area and tiered buffers.

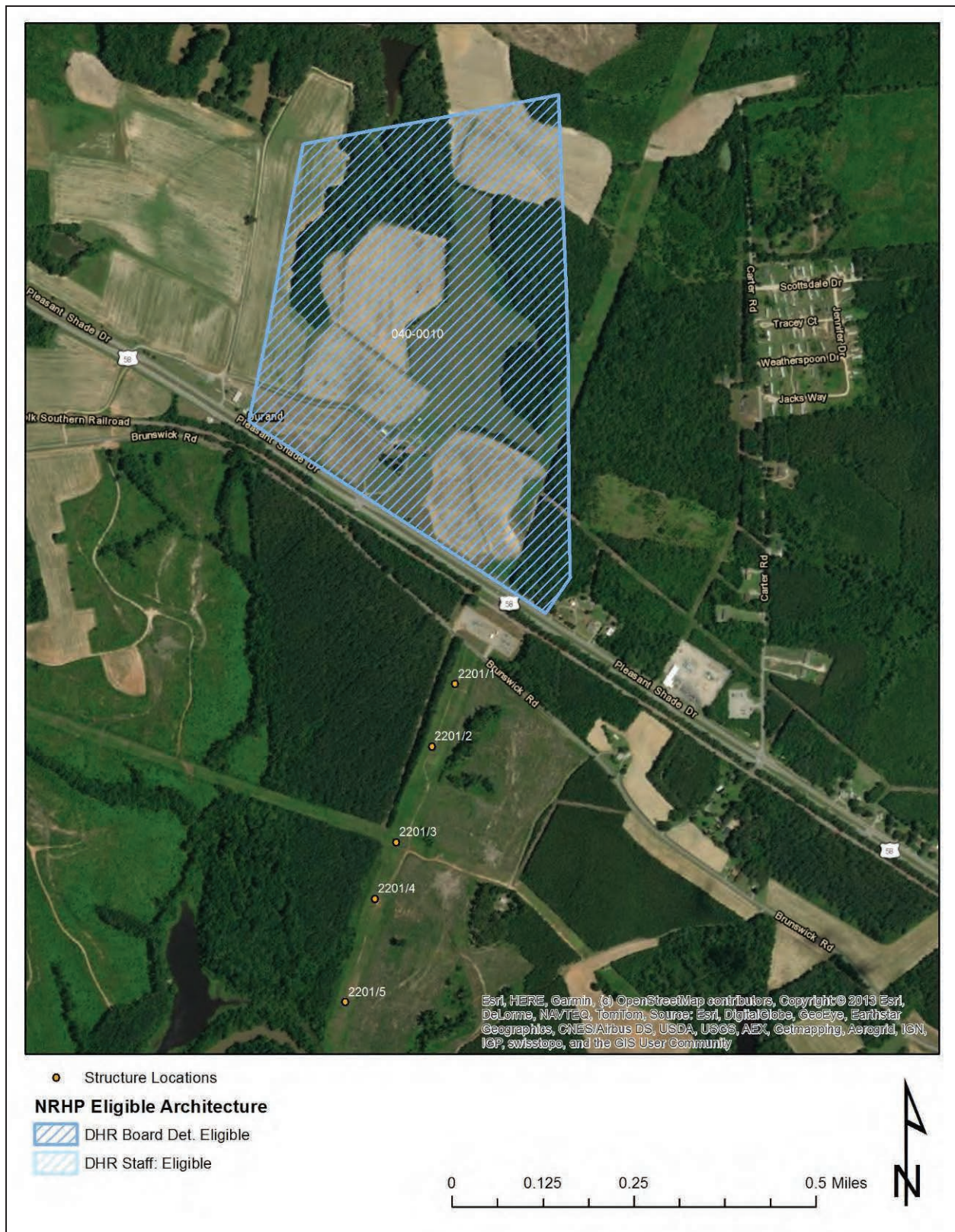


Figure 5-2: Chambliss House in relation to structure locations.



Figure 5-3: Location and directions of photographs (yellow) and photo simulations (green) from Chambliss House (blue) towards the project area (red). Existing transmission line not to be rebuilt or included in this effort shown in orange dashed line.



Figure 5-4: Photo location 1- View of Chambliss House front, facing northwest.



Figure 5-5: Photo location 2- View of Chambliss House setting from front, facing north.



Figure 5-6: Photo location 3- View of Chambliss House setting from US-58, facing northeast.



Figure 5-7: Photo location 4- View of Chambliss House setting from US-58, facing west.



Figure 5-8: Photo location 5- View of existing transmission line (not included in this rebuild project) crossing through Chambliss House property, facing north.



Figure 5-9: Photo location 6- View of existing transmission line (not included in this rebuild project) crossing through Chambliss House property, facing northeast.



Figure 5-10: Photo location 7- View of existing substation and project rebuild alignment across US-58 from Chambliss House property, facing south.

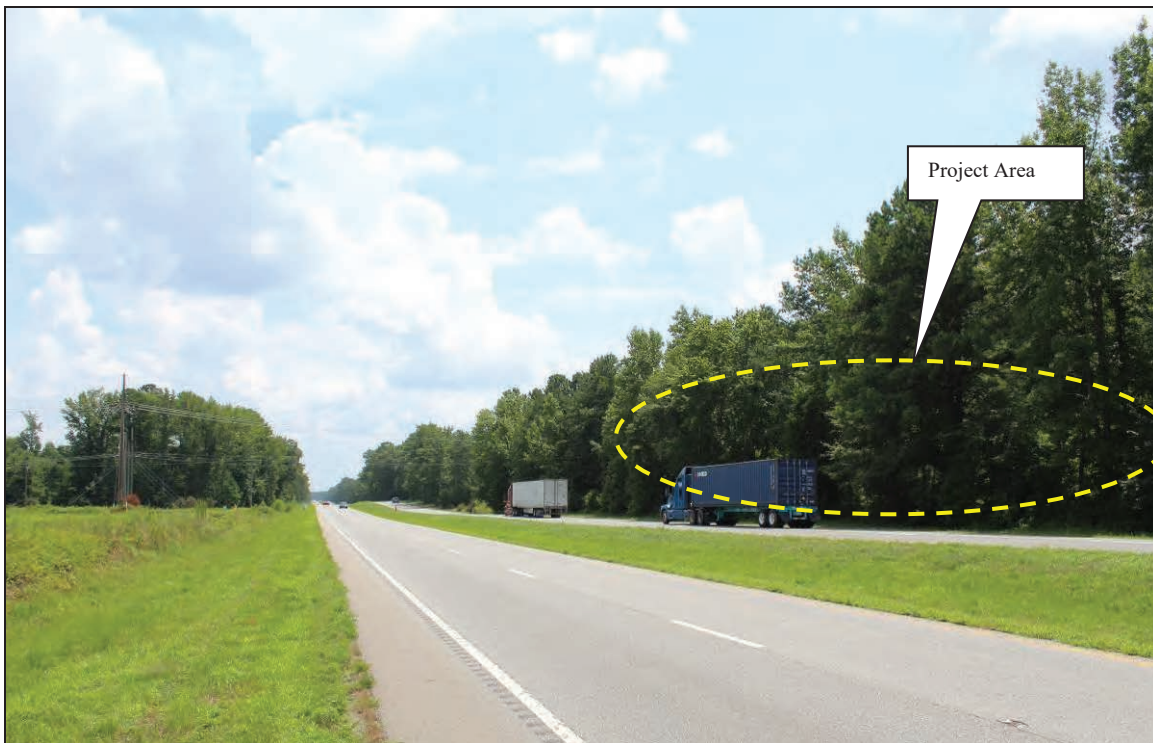


Figure 5-11: Photo location 8- View from US-58 bordering Chambliss House property towards project area (not visible) showing existing transmission line (not included in this rebuild project), facing east.



Figure 5-12: Photo location 9- View from US-58 in front of Chambliss House property showing existing transmission line (not included in this rebuild project), facing northeast.



Figure 5-13: Photo location 10- View from Chambliss House homesite towards project area (not visible) showing existing transmission line (not included in this rebuild project), facing southeast.

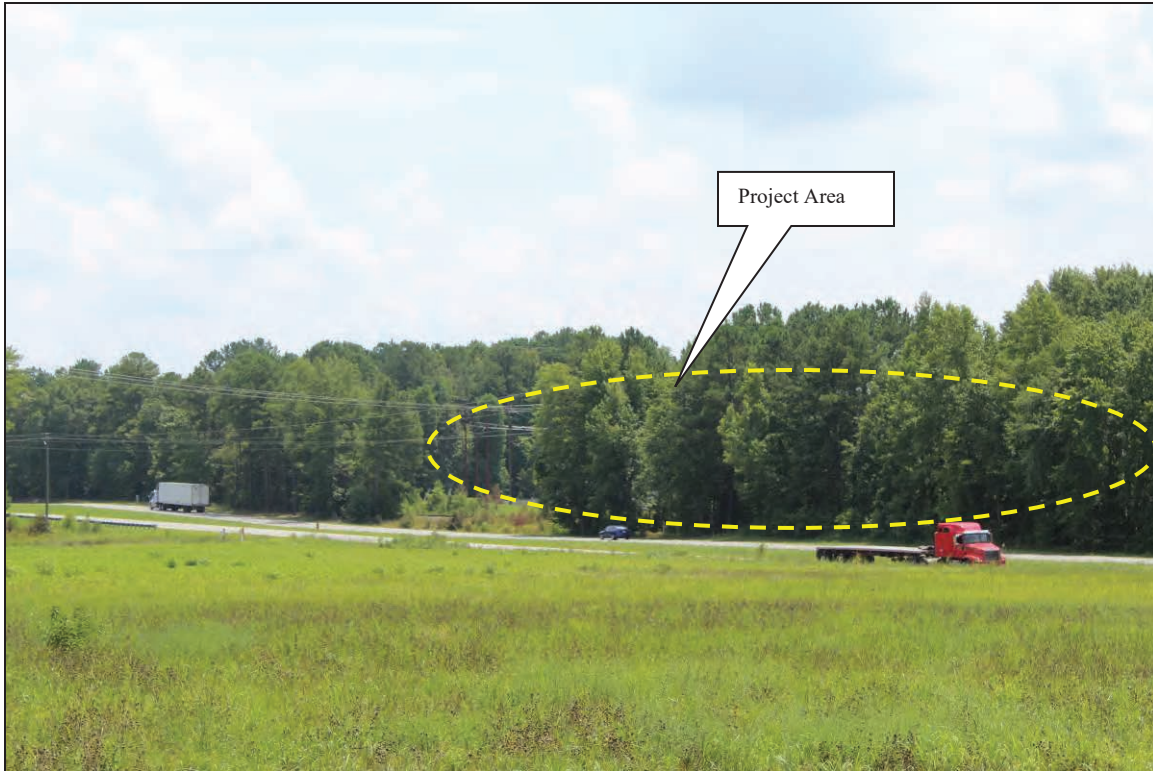


Figure 5-14: Photo location 11- Detail of view from Chambliss House homesite towards project area (not visible) showing existing transmission line (not included in this rebuild project), facing southeast.



Figure 5-15: Photo location 12- View from US-58 bordering Chambliss House property towards project area (not visible) showing existing transmission line (not included in this rebuild project), facing east

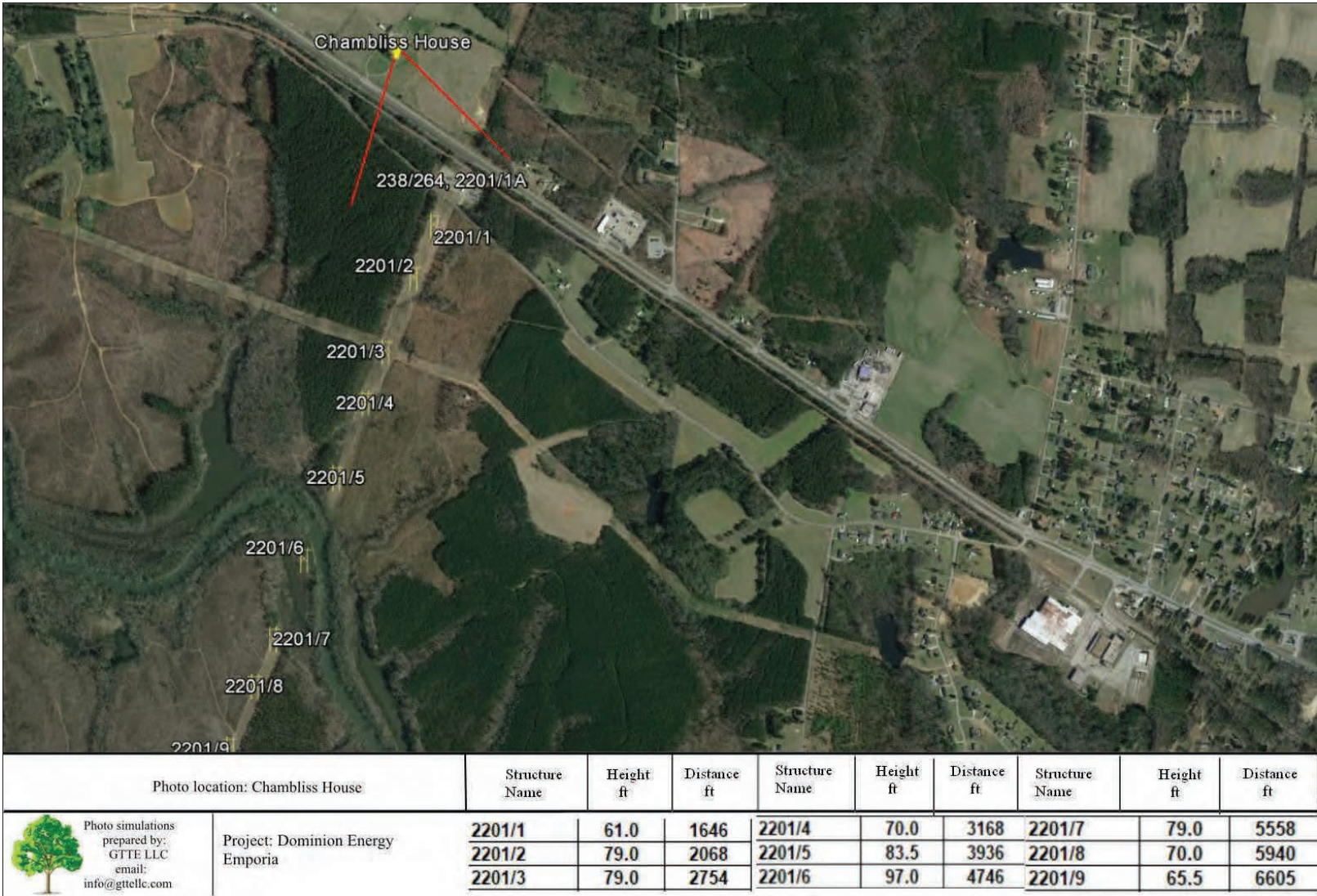


Figure 5-16: Photo Simulation 1 – Simulation location, direction of view, and structures modeled. Source: GTTE, LLC

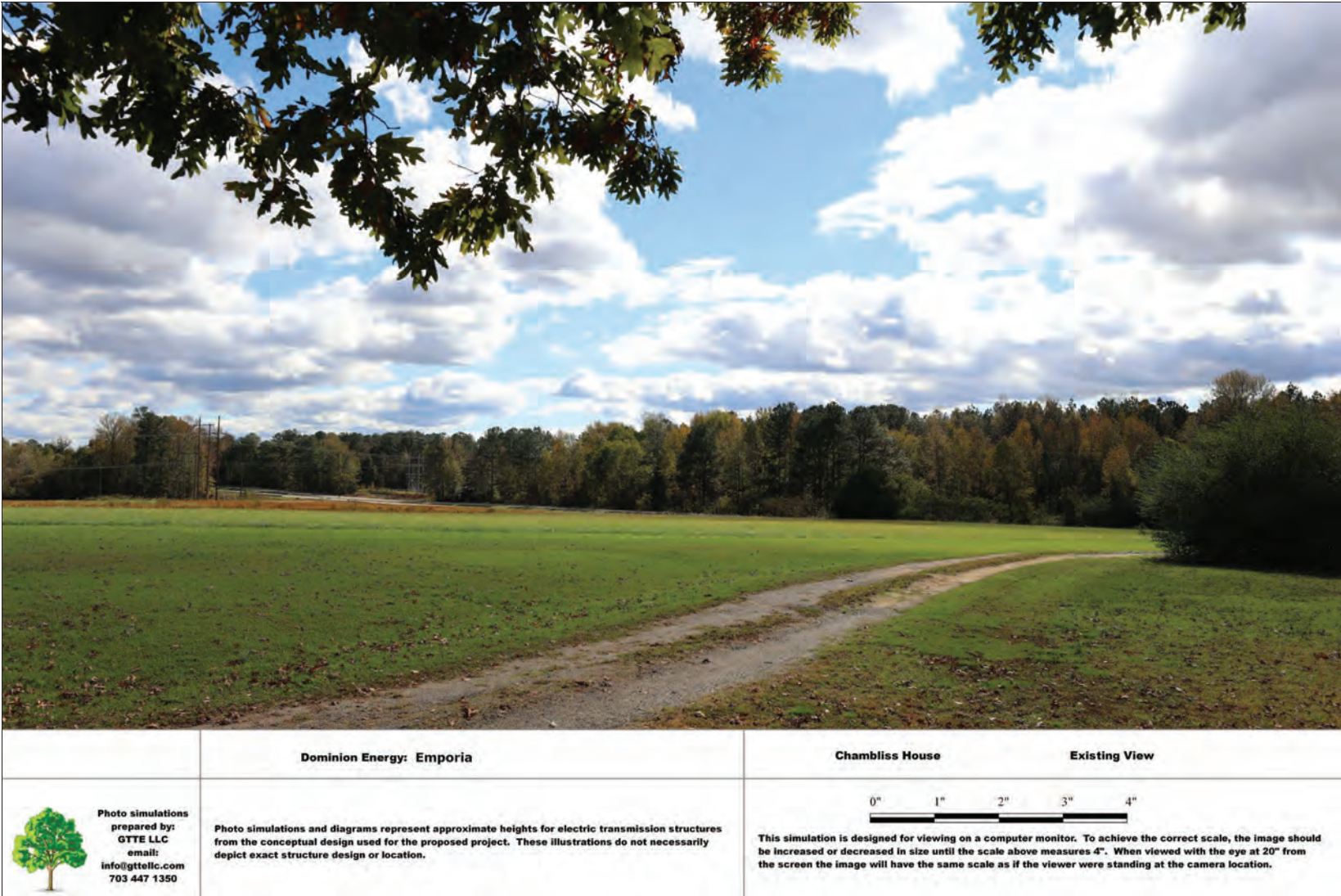


Figure 5-17: Photo Simulation 1 – Existing view from the Chambliss House. Source: GTTE, LLC



Figure 5-18: Photo Simulation 1 – Proposed view from the Chambliss House (structures not visible). Source: GTTE, LLC

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6. SUMMARY OF POTENTIAL IMPACTS

As part of this pre-application analysis of cultural resources for the proposed Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project, potential impacts to previously recorded historic properties listed or considered eligible for listing in the NRHP within the VDHR-defined buffered tiers were assessed in accordance with the VDHR guidelines. For the purposes of this analysis, an impact is one that alters, either directly or indirectly, those qualities or characteristics that qualify a particular property for listing in the NRHP and does so in a manner that diminishes the integrity of a property's materials, workmanship, design, location, setting, feeling, and/or association. With respect to transmission lines, direct impacts typically are associated with ground disturbance resulting from ROW clearing and structure construction. Indirect impacts typically are associated with the introduction of new visual elements or changes to the physical features of a property's setting or viewshed. According to VDHR guidance, project impacts are characterized as such:

- **None** – Project is not visible from the property
- **Minimal** – Occur within viewsheds that have existing transmission lines, locations where there will only be a minor change in tower height, and/or views that have been partially obstructed by intervening topography and vegetation.
- **Moderate** – Include viewsheds with expansive views of the transmission line, more dramatic changes in the line and tower height, and/or an overall increase in the visibility of the route from the historic properties.
- **Severe** – Occur within viewsheds that do not have existing transmission lines and where the views are primarily unobstructed, locations where there will be a dramatic increase in tower visibility due to the close proximity of the route to historic properties, and viewsheds where the visual introduction of the transmission line is a significant change in the setting of the historic properties.

With regards to architectural resources, one historic property that is either designated and NHL, listed in, or determined eligible for listing in the NRHP is located within defined study tiers. This includes the c.1838 Chambliss House which was determined eligible for listing in the NRHP in 1999 as part of a proposed rehabilitation tax credit project.

Field inspection, representative photographs, and photo simulation reveal that the project will be mostly to completely screened from view from all locations within and around the Chambliss House property. An existing transmission line crosses through an agricultural field on the Chambliss House property with unobstructed views from the house, however, the portion of the line to be rebuilt is across the road within a thickly wooded area that completely screens it from visibility and likely continue to do so. It is therefore D+A's opinion that the proposed Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project will have no more than a *minimal impact* on the Chambliss House.

SUMMARY OF POTENTIAL IMPACTS

Table 6-1: Potential impacts summary for architectural resources.

VDHR ID #	Resource Name	NRHP Status	Impact
040-0010	Chambliss House	NRHP- Eligible	Minimal

With regards to archaeology, there are 18 previously recorded sites within or immediately adjacent (within 100-feet of the centerline) to the project area. Of these, two sites have been determined not eligible for listing in the NRHP and the remaining 16 have not been formally evaluated. No archaeological survey or inspection was conducted as part of this effort. Re-identification and verification of site boundaries and eligibility should be conducted prior to any earth-moving or ground-disturbing activity associated with the Clubhouse-Dry Bread Line #2201 and Dry Bread- Lakeview Line #254 230kV Virginia Rebuild Project.

7. REFERENCES

National Park Service

2009 “Civil War Sites Advisory Commission Report Update and Resurvey,” American Battlefield Protection Program

Virginia Cultural Resource Information System (VCRIS)

1991 Architectural Survey Form. *Black Walnut*. VDHR# 041-0006.

2009 Architectural Survey Form. *Staunton River Bridge Battlefield*. VDHR# 019-5190.

Virginia Department of Historic Resources

2008 *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia*

Virginia Department of Historic Resources

2016 Virginia Cultural Resource Information System (VCRIS) database and GIS server.

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Rachel M Studebaker (Services - 6)

From: ImpactReview <impactreview@vof.org>
Sent: Thursday, October 8, 2020 1:26 PM
To: Nancy R Reid (Services - 6)
Subject: [EXTERNAL] RE: Virginia Rebuild Project Greensville County, Virginia
Attachments: 2020.10.08 Martha Little VOF.pdf

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

Ms. Reid,

The Virginia Outdoors Foundation has reviewed the project referenced above and described in the attached document. As of 8 October 2020, there are not any existing nor proposed VOF open-space easements in the immediate vicinity of the project.

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

Thanks,
Mike

Mike Hallock-Solomon, AICP
Virginia Outdoors Foundation

From: Nancy.R.Reid@dominionenergy.com <Nancy.R.Reid@dominionenergy.com>
Sent: Thursday, October 8, 2020 7:21 AM
To: ImpactReview <impactreview@vof.org>
Subject: RE: Virginia Rebuild Project Greensville County, Virginia

Alert: This email originated from outside VOF
Dear Ms. Little,

Please find attached the information for the proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project.

Most respectfully,

Nancy

Nancy Reid
Siting & Permitting Specialist
Electric Transmission
10900 Nuckols Rd
Glen Allen, VA 23060
434.532.7579 cell

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

From: [Scott Denny](#)
To: [Nancy R Reid \(Services - 6\)](#)
Subject: [EXTERNAL] Re: Virginia Rebuild Project Greenville County, Virginia
Date: Thursday, October 15, 2020 3:10:30 PM

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

Dear Ms. Reid:

The Virginia Department of Aviation has reviewed the information package provided in your October 8, 2020 email pertaining to the Clubhouse-Dry Bread and Dry Bread to Lakeview Line rebuild project. This project does not appear to be located within 20,000 linear feet of a public use airport. Therefore, unless any portion of this project will include a structure, temporary or permanent, that will reach a height of 200' above ground level, the submission of a 7460 form will not be required. If a structure, such as a crane, will be erected that reaches a height of 200' above ground level, a 7460 must be submitted to the Federal Aviation Administration to determine if the proposed development will result in the creation of a hazard to air navigation.

Please note that this email will serve as the Department's official response unless a copy of our comments are specifically requested on Department letterhead. Please let me know if you have any questions.

Sincerely,

S. Scott Denny
Senior Aviation Planner
Virginia Department of Aviation

On Thu, Oct 8, 2020 at 7:22 AM Nancy.R.Reid@dominionenergy.com
<Nancy.R.Reid@dominionenergy.com> wrote:

Dear Mr. Denny,

Please find attached the information for the proposed Clubhouse-Dry Bread Line #2201 and Dry Bread-Lakeview Line #254 230 kV Virginia Rebuild Project.

Most respectfully,

Nancy

Nancy Reid
Siting & Permitting Specialist
Electric Transmission
10900 Nuckols Rd
Glen Allen, VA 23060
434.532.7579 cell

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--

S. Scott Denny
Senior Aviation Planner
Virginia Department of Aviation
804-236-3638
scott.denny@doav.virginia.gov