Dominion Energy®

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

Before the State Corporation Commission of Virginia

Chesterfield-Tyler 230 kV Transmission Lines #205 and #2003 Partial Rebuild Project

Application No. 297

Case No. PUR-2020-00014

Filed: January 28, 2020

Volume 2 of 2

DEQ Supplement

BEFORE THE
STATE CORPORATION COMMISSION
OF VIRGINIA

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

Chesterfield-Tyler 230 kV Transmission Lines #205 and #2003
Partial Rebuild Project

Application No. 297

DEQ Supplement

Case No. PUR-2020-00014

Table of Contents

Based upon consultations with the Virginia Department of Environmental Quality ("DEQ"), Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") has developed this DEQ Supplement to facilitate review and analysis of the proposed Chesterfield-Tyler 230 kV Transmission Lines #205 and #2003 Partial Rebuild Project ("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, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes:

(i) to rebuild within an existing right-of-way or on Company-owned property, an approximately 3.2 mile section of existing 230 kV Chesterfield-Locks Line #205 and Chesterfield-Poe Line #2003 between the Company's existing Chesterfield Substation, which is located on the Company's Chesterfield Power Station site, to Structure #205/19A, #2003/25, which is located approximately 0.6 mile south of the Company's existing Tyler Substation, all within Chesterfield County, Virginia; and

(ii) to perform minor work at both the Chesterfield Substation and Tyler Substation

(collectively, the "Rebuild Project"). Although the Rebuild Project extends past Tyler Substation for approximately 0.6 mile to Structure #205/19/A, #2003/25 in Chesterfield County, for simplicity in this Appendix and elsewhere, the Company will refer to the end points of this rebuild as Chesterfield Substation and Tyler Substation.

As of April 2019, the Company has approximately 3,115 miles of overhead transmission lines built prior to 1980 (approximately 47% of the overall overhead transmission system mileage). The Company has developed a proactive plan to rebuild transmission lines that are comprised of weathering steel towers (COR-TEN®[1] towers). The 230 kV system accounts for approximately 2,861 miles of the Company's total overhead transmission line system, of which approximately 1,502 miles were built primarily before 1980.

The proposed Rebuild Project will replace aging infrastructure that is at the end of its service life in order to comply with the Company's mandatory transmission planning criteria (the "Planning Criteria"), thereby enabling the Company to maintain the overall long-term reliability of its transmission system, as well as to provide important system reliability benefits to the Company's entire network. Specifically, the Company proposes to rebuild approximately 3.2 miles of existing Line #205 and Line #2003, which share structures that were constructed in 1962 predominantly on double circuit COR-TEN® steel lattice towers. These COR-TEN® towers have been identified for rebuild based on the Company's assessment in accordance with its Planning Criteria. The Company retained a third-party company, Quanta Technology

[1] Registered trademark of United States Steel Corporation.

("Quanta"), to evaluate the condition of its COR-TEN® towers. After completing its evaluation, Quanta Technology provided the Company with the 2016 Quanta Report, which confirmed the need to rebuild the COR-TEN® section of Lines #205 and #2003, among other 230 kV COR-TEN® transmission lines on the Company's system.

The Company proposes to rebuild Lines #205 and #2003 primarily in two construction phases: the first in the 0.6-mile section of those lines between Tyler Substation and Structure #205/19A, #2003/25; and the second in the 2.6-mile section of those lines between Chesterfield Substation and Tyler Substation. This construction will include rebuild line preparation work associated with 230 kV Lines #211 and #228 described in Section I.F of the accompanying Appendix, as well as construction of a temporary line described in Section II.A.10 of the Appendix.

The length of the existing right-of-way and Company-owned property to be used for the Rebuild Project is approximately 3.2 miles. Also see Section II.B.6 of the accompanying Appendix. Because the existing right-of-way and Company-owned property is adequate to construct the proposed Rebuild Project, no new right-of-way is required. Given the availability of existing right-of-way and the statutory preference given to use existing rights-of-way, and because additional costs and environmental impacts would be associated with the acquisition and construction of new right-of-way, the Company did not consider any alternate routes requiring new right-of-way for this Rebuild Project.

2. Environmental Analysis

The Company solicited comments from all relevant state and local agencies about the proposed Rebuild Project in December 2019. Copies of those letters are included as Attachment 2.

A. Air Quality

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

The entire 235-foot and the 160-foot widths of the existing transmission line right-of-way currently is maintained for transmission facility operations. However, the 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 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 Rebuild Project is located within the Lower James River (Hydrologic Unit Code 02080206) watershed. The U.S. Geological Survey ("USGS") topographic quadrangles for Drewry's Bluff (1994) and Chester (1994) depict the study area as existing, cleared transmission line traversing through nearly level to steeply sloping terrain. Several well-defined drainages cross the existing right-of-way.

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 Rebuild Project on December 3, 2019. In a letter dated December 17, 2019, VMRC provided comments that the proposed project is outside the jurisdictional areas of the VMRC and will not require a permit (Attachment 2.B.1). If necessary, a Joint Permit Application will be submitted for review by DEQ, the U.S. Army Corps of Engineers (the "Corps") and the Chesterfield County Local Wetlands Board to authorize jurisdictional crossings and for any impacts to jurisdictional features.

The Company provided the wetland study to the DEQ for review as part of its Memorandum of Agreement Regarding Wetland Impact Consultation. The DEQ responded in a letter on December 16, 2019 with recommendations and potential permits. See Attachment 2.B.2. The Company will follow DEQ recommendations and will acquire permits as needed.

C. Discharge of Cooling Waters

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

D. Tidal and Non-tidal Wetlands

No tidal wetlands were identified within the proposed Rebuild Project area.

Wetlands Impact Consultation

Within the Rebuild Project corridor, 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 *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). The delineation of wetlands and other waters of the U.S. was performed for the Chesterfield-Hopewell 230 kV Transmission Line Rebuild, which overlaps with the proposed Rebuild Project. The Company submitted the results of this delineation to the Corps in October 2018 for confirmation, Attachment 2.D.1. An additional 1,000 feet of right-

of-way included in the Rebuild Project was not part of the Chesterfield-Hopewell 230 kV Transmission Line Rebuild project delineation. Therefore, the Company delineated wetlands with the additional right-of-way in March 2019. The results of the delineation were submitted to the Corps for confirmation in December 2019 (Attachment 2.D.2). Total jurisdictional resources within the proposed Rebuild Project right-of-way are provided in Table 1 and detailed in Attachments 2.D.1 and 2.D.2.

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

Resource	Acreage (±)
Palustrine Emergent Wetland	0.53
Palustrine Scrub-shrub Wetland	1.12
Open water	0.14
Jurisdictional Ditches	0.003 (64 linear feet)
Upper Perennial Streams	0.14 (1,496 linear feet)
Intermittent Streams	0.01 (346 linear feet)

E. Solid and Hazardous Waste

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

According to this database, there are 23 registered RCRA sites present within a 0.5-mile radius of the project. A review of the FRS forms has determined that some sites are unspecified generators. Most sites are listed as conditionally exempt small quantity generators and are located well outside the right-of-way. None of these sites are expected to be a concern for the project due to the distance and nature of the sites. The Chesterfield Power Station is listed as a RCRA site; however, the site is managed

by Dominion Energy Virginia and is not anticipated to be a concern for Rebuild Project. A table identifying RCRA sites as falling within 0.5 mile of the Rebuild Project is included as part of Attachment 2.E.1.

DEQ records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites and petroleum releases within 0.5 mile of the Rebuild Project. A total of 20 petroleum release sites were identified within the search radius, with the closest site (PC Number: 19940010) located approximately 323 linear feet from the project area. This site falls outside of the right-of-way and the case has been closed. Additionally, none of the other identified petroleum release sites identified within 0.5 mile of the proposed project intersect with the project right-of-way and all except one case has been closed. The remaining open site, 19941599, is associated with the Chesterfield Power Station and is located north of the Rebuild Project. As this release occurred in 1993, it is expected that the DEQ records need to be updated and this case should be closed. The Company has a procedure in place to handle petroleum contaminated soil, if encountered; however, as all the release sites are located outside of the project area, none of the petroleum release sites are expected to have an impact on the proposed project. A table listing these sites is included in Attachment 2.E.1.

One active solid waste permit, associated with Chesterfield Power Station, is located within 0.5 mile of the proposed project. The Rebuild Project occurs within the Chesterfield Power Station; however, the ash ponds associated with the solid waste permit are not within the limits of the Rebuild Project.

F. Natural Heritage, Threatened and Endangered Species

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

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

Species	Status	Database	Results
Northern long-eared bat *Myotis septentrionalis*	FT ST	USFWS	No hibernacula or maternal roost trees were identified in the vicinity of the project.
Tri-colored bat *Perimyotis subflavus*	SE	VAFWIS	Observations north of Chesterfield Power Station. No hibernacula identified in the vicinity of the project.
Atlantic sturgeon *Acipenser oxyrinchus*	FE SE	VAFWIS NMFS	The lower James River is suitable habitat for this species and have been designated as critical habitat.
Sensitive joint vetch *Aeschynomene virginica*	FT ST	USFWS DCR	Identified as potentially occurring in the vicinity of the project.
Bald eagle *Haliaeetus leucocephalus*	Protected	CCB	No nests were identified within the vicinity of the project.
Colonial Waterbirds	Protected	CCB	One great blue heron colony approximately 0.5-mile northwest of project

FT: federally threatened, FE: federally endangered, ST: state threatened, SE: state endangered

The federally and state threatened northern long-eared bat has been identified by USFWS as potentially occurring within the proposed Rebuild Project area. However, DGIF records indicate that no known hibernacula or maternity roost trees occur within the vicinity, and thus, no adverse effects are expected. The Rebuild Project will occur within an existing maintained right-of-way and tree removal is expected to be limited to danger trees and limbing. To the extent necessary, if hibernacula or maternity roost trees are found to occur in the vicinity of the Rebuild Project area during the Section 404 Clean Water Act permitting, the project is expected to rely on the findings of the 4 (d) rule with a time-of-year restriction ("TOYR") for tree clearing of June 1-July 31.

The tri-colored bat was identified north of the project area. Because there are no known hibernacula in the vicinity of the Rebuild Project, no adverse effects are expected.

DGIF identified the lower James River as a potential anadromous fish use area with a TOYR for instream work from February 15-June 30. Additionally, the National Marine Fisheries Service ("NMFS") has designated the main stem of the James River as critical habitat for the Atlantic sturgeon. There is no instream work proposed in the river or tidal tributaries, and as such, the Rebuild Project is not expected to adversely affect the Atlantic sturgeon or need to adhere to the TOYR.

USFWS and DCR have identified the federally and state threatened sensitive joint-vetch ("SJV") as potentially occurring within the project area. SJV prefers fresh to slightly brackish tidal marshes in the mid-Atlantic. No tidal marsh is present within the Rebuild Project area; therefore, SJV would not occur in the project area.

There are no bald eagle nests located within the vicinity of Rebuild Project. According to the 2013 colonial waterbird survey, one great blue heron colony is located northwest of the Chesterfield Power Station and within 0.5 mile of the project. Due to the presence of the existing power station, no impacts are expected to occur to the colony.

In addition to these database searches, DCR was solicited for comments on the Rebuild Project. Comments were received from DCR in a letter dated January 9, 2020 (Attachment 2.F.2). DCR noted that the Rebuild Project would not affect any documented state-listed plants or insects and there are no State Natural Area Preserves in the project vicinity.

As the Company will obtain all necessary permits prior to construction, such as authorization from the DEQ and the Corps, coordination with the DGIF, DCR, and USFWS will take place through the respective permit processes to avoid and minimize impacts to listed species.

Lastly, during the Company's recent Mt. Storm-Valley 500 kV transmission line rebuild project proceeding (Case No. PUR-2019-00049), the Company and the DCR Division of Natural Heritage ("DCR DNH" or the "Division") jointly presented language that would replace DCR DNH's biotics recommendation in the Company's transmission cases going forward in the form of a late-filed exhibit submitted in that proceeding. The recommendation going forward is as follows:

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

G. Erosion and Sediment Control

The DEQ approved the Company's Standards & Specification for Erosion & Sediment Control and Stormwater Management for Construction of Linear Electric Transmission Facilities (TE VEP 8000) in January 2018. These specifications are given to the Company's contractors and require erosion and sediment control measures to be in place before construction of the proposed Rebuild Project begins and specify the requirements for rehabilitation of the right-of-way.

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

Stantec was retained by the Company to conduct Stage I Pre-Application Analysis for the proposed Rebuild Project. 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* (DHR 2008) for proposed transmission line improvements. As detailed by Virginia Department of Historic Resources ("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. The Stage 1 Analysis, which was submitted to VDHR on December 20, 2019, is included as Attachment 2.H.1.

Archaeological Resources

A total of eight previously recorded archaeological sites were identified either within or immediately adjacent to the existing right-of-way. One of these archaeological sites is "eligible" and one other is considered "potentially eligible" for listing on the NRHP by VDHR. The remaining six archaeological sites have not been evaluated for NRHP eligibility. The table below provides archaeological resources within the Rebuild Project right-of-way.

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

VDHR #	Resource Name	VDHR/NRHP Status
44CF0102	Woodland Site; 18th Century Osbornes Town Site	Eligible
44CF0124	Prehistoric Camp; Indeterminate 18th Century Historic Site	Not Evaluated
44CF0125	Indeterminate 18th Century Site: 19th Century Trash Pit	Not Evaluated
44CF0127	Bridge, Historic Road	Not Evaluated
44CF0128	Prehistoric Camp: Indeterminate, 18th Century Historic Site	Not Evaluated
44CF0129	Prehistoric Camp; Indeterminate Quarry	Not Evaluated
44CF0130	Indeterminate Prehistoric Camp; 19th Century Dwelling; Poss. 17th Century Hospital	Not Evaluated
44CF0578	Civil War Earthworks	Potentially Eligible

Architectural Resources

No NHL-listed architectural resources are located within the 1.5-mile radius. One NRHP-listed resource and eight battlefields were identified in the 1.0-mile radius of the project centerline. One of the battlefield resources, the Howlett Line (VDHR #020-0232), determined potentially eligible by VDHR, was evaluated during the current project as the resource is contributing to the Richmond National Battlefield Park (VDHR #043-0033). Distances of architectural resources to the proposed Rebuild Project are provided in the table below.

Table 4. Architectural Resources within or adjacent to the Rebuild Project Right-of-Way

VDHR#	Resource Name	VDHR/NRHP Status	Distance to Line (Miles)
020-0121	Osborne's Naval Battle Site	NRHP- Eligible	1,512
020-0232/ 043-0033-0059	Howlett Line/Parker's Battery/Parker's Battery Earthworks	Potentially Eligible	24
020-5317/ VA 047	Port Walthall Junction Battlefield, Indian Hills Road	NRHP-Eligible	3,808
020-5318/ VA-050	Swift Creek Battlefield /Arrowfield Church	Potentially Eligible	3,716
020-5319/ VA 054	Ware Bottom Church Battlefield	Potentially Eligible	0
020-5320/ VA 053	Proctor's Creek Battlefield/ Drewry's Bluff (2nd) Battlefield/ Fort Darling/ Fort Drewry	Potentially Eligible	0
043-0307/ VA 075	Battle of Chaffin's Farm/New Market Heights Battlefield	Potentially Eligible	3,755
123-5025/ VA 063	Assault on Petersburg/Petersburg Battlefield II	Potentially Eligible	3,336
043-0033	Richmond National Battlefield Park	NRHP-Listed	16

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 Company will meet those conditions.

J. Wildlife Resources

Relevant agency databases were reviewed and requests for comments from the USWFS, DGIF, DCR, and VDACS were submitted to determine if the proposed Rebuild Project has the potential to affect any threatened or endangered species. As described in Section 2.F and included as Attachment 2.F.1, certain federal and state listed species were identified as potentially occurring in the project area. The Company will coordinate with the USFWS, NMFS, DGIF, and DCR as appropriate to determine whether additional surveys are necessary and to minimize impacts on wildlife resources. Because the proposed Rebuild Project is a rebuild of a transmission line within the existing right-of-way, no loss of wildlife habitat is anticipated.

K. Recreation, Agricultural and Forest Resources

The Company anticipates minimal permanent impacts on recreational, agricultural, and forest resources because no additional right-of-way is required for the Rebuild Project. The general character of the Rebuild Project area is predominantly industrial with minimal residential and scattered open space.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. Land that does not meet the criteria for prime farmland can be considered to be "farmland of statewide importance." The criteria for defining and delineating farmland of statewide importance are determined by the Virginia Department of Agriculture and Consumer Services. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. 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 42.02 acres of prime farmland and 0.26 acre of farmland of statewide importance are located within the Rebuild Project right-of-way. No portion of the existing right-of-way for the Rebuild Project is currently in agricultural use. Chesterfield County does not have designated farmlands of local importance. Therefore, the Rebuild Project is not expected to affect agricultural land.

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.

The Company solicited comments from the Virginia Outdoors Foundation ("VOF") regarding the proposed Rebuild Project on December 3, 2019. VOF responded on December 6, 2019, indicating there are not any existing or proposed VOF open-space

easements in the immediate vicinity of the Rebuild Project. This response is included as Attachment 2.K.1.

The existing ROW is located on the western edge of the Parker's Battery unit of the Richmond National Battlefield. Lines #205 and #2003 do not pass directly over the park unit and no transmission structures are located within the park. Because no infrastructure from the Rebuild Project is located within Richmond National Battlefield, no direct effects are expected during construction. The Company will coordinate with the National Park Service prior to construction.

The existing right-of-way also is adjacent to Battery Dantzler Park, which is managed by the Chesterfield County Parks and Recreation Department. This approximately 14.7-acre historical park provides a short trail and interpretation of the Howlett Line during the Siege of Petersburg. The VDHR holds an easement on this park property.

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. Within the vicinity of the Rebuild Project, the James River has been qualified as a river found worth as designation as a scenic river. Because the Rebuild Project involves the rebuild of a transmission line within an existing right-of-way containing other electric transmission lines, no impact would be expected to the scenic qualities of the James River.

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

Any tree along the right-of-way that is tall enough to endanger the conductors if it were to break at the stump or uproot and fall directly towards the conductors and exhibits signs or symptoms of disease or structural defect that make it an elevated risk for falling will be designated as a "danger tree" and may be removed. The Company's arborist will contact the property owner if possible before any danger trees are cut, except in emergency situations. The Company's Forestry Coordinator will field inspect the right-of-way and designate any danger trees present. Qualified contractors working in accordance with the Company's Electric Transmission specifications will perform all danger tree cutting. The Rebuild Project is expected to have minimal, if any, impact on agricultural or forest resources as the proposed Rebuild Project involves rebuilding a portion of an existing line which is already cleared and maintained for existing facility operation and no additional right-of-way is required for the Rebuild Project.

L. Use of Pesticides and Herbicides

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

DEQ has previously requested that only herbicides approved for aquatic use by the EPA or the USFWS be used in or around any surface water; the Company intends to comply with this request.

M. Geology and Mineral Resources

According to the Division of Geology and Mineral Resources Interactive Geologic Map, the Rebuild Project is underlain by unconsolidated sediments of the Atlantic Coastal Plain. The Rebuild Project sits atop the Charles City, Potomac, and Bacon's Castle Formations and Lower Tertiary deposits which consists of sands and gravels with clays, mud, and silt.

According to the USGS topographic maps and aerial imagery, there are no active mines or stone quarries within the proposed Rebuild Project. A search of the Virginia Department of Mines, Minerals, and Energy online map confirms there are no active or abandoned mines within the right-of-way for any of the Sections. Mines within 0.5 mile of the Rebuild Project are provided in the table below. The Company does not anticipate that the proposed Rebuild Project will result in negative impacts on the geology or mineral resources.

Table 5. Mines within 0.5 Mile of the Rebuild Project

Mine ID	Mineral	Status	Latitude	Longitude
DMM04621	Sand	Orphaned	37.3522	-77.4008
DMM04620	Sand	Orphaned	37.3517	-77.4025
DMM04623	Sand	Orphaned	37.3600	-77.4000
DMM04624	Sand	Orphaned	37.3529	-77.3913
DMM04622	Sand	Orphaned	37.3600	-77.3800

Mine ID	Mineral	Status	Latitude	Longitude
DMM11116	Sand	Orphaned	37.3390	-77.4039
DMM04619	Sand	Orphaned	37.3399	-77.3920
13902AB	Sand & Clay	Released	37.3508	-77.3846
13902AC	Sand & Clay	Active	37.3508	-77.3846

N. Transportation Infrastructure

The existing right-of-way to be used for the proposed Rebuild Project crosses multiple roads in Chesterfield County. Roads within the project area range from low traffic volume roads to a primary state highway (Route 10). The Company plans to apply for land use permits from the Virginia Department of Transportation ("VDOT") for the aerial crossings of VDOT maintained roads and any construction entrances from the VDOT right-of-way. All permits will be obtained prior to construction. The Company solicited comments from VDOT regarding the proposed Rebuild Project on December 3, 2019.

The existing Rebuild Project right-of-way crosses two railroads operated by CSX Transportation. One crossing is the railroad spur within the Company property of the Chesterfield Power Station. The Company will coordinate with the railroad as necessary to obtain permits; however, it is not anticipated that the proposed Rebuild Project will affect railroad facilities or conflict with their operation.

The Company solicited comments from the Virginia Department of Aviation ("DOAv") regarding the proposed Rebuild Project on December 3, 2019. In a letter dated December 6, 2019, the DOAv stated that the proposed project limits for the Rebuild Project do not lie within 20,000 linear feet of any public use airport. The DOAv stated the requirement for the Company to submit Form 7460 to the FAA for any structures that reach 200 feet in height above ground level. This letter is provided as Attachment 2.N.1 of the DEQ Supplement. The design of the proposed Rebuild Project must prevent interference with pilots' safe ingress and egress at the airport. Such hazard or impediments include interference with navigation and communication equipment and glare from materials and external lights.

Finally, the Company has reviewed the FAA website (https://oeaaa.faa.gov/oeaaa/external/portal.jsp) to identify airports within 10 nautical miles of the Rebuild Project; the following airports were identified:

- Richmond International Airport, 9.4 miles northeast of Chesterfield Power Station
- Defense Supply Center Richmond Heliport, 4.5 miles northwest of Chesterfield Power Station
- Richmond Executive-Chesterfield County Airport, 7.8 miles northwest of Chesterfield Power Station
- Fort Lee AHP 3, 6.2 miles southeast of the southern terminus of the project
- Fort Lee NR 1, 6.6 miles southeast of the southern terminus of the project

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

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

Attachments

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

December 3, 2019

Mr. James Golden
Virginia Department of Environmental Quality
Piedmont Regional Office00
4949-A Cox Road
Glen Allen, Virginia 23060

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Golden:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

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 *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). This delineation of wetlands and other waters of the U.S. was performed for the Chesterfield-Hopewell 230 kV Transmission Line Rebuild which overlaps with the proposed Rebuild Project. The Company submitted the results of this delineation to the U.S. Army Corps of Engineers ("Corps") in October 2018 for confirmation. An additional 1,000 feet of ROW included in the Rebuild Project was not part of the Chesterfield-Hopewell 230 kV Transmission Line Rebuild project delineation. Therefore, the Company delineated wetlands with the additional ROW in March 2019. The results of the delineation have been submitted to the Corps for confirmation. Total jurisdictional resources within the proposed Rebuild Project right-of-way is provided in the table below:

Jurisdictional Resources within Rebuild Project ROW

Resource	Acreage (±)
Palustrine Emergent Wetland	0.53
Palustrine Scrub-shrub Wetland	1.12

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

Resource	Acreage (±)
Open water	0.14
Jurisdictional Ditches	0.003 (64 linear feet)
Upper Perennial Streams	0.14 (1,496 linear feet)
Intermittent Streams	0.01 (346 linear feet)

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Department of Environmental Quality ("DEQ") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DEQ would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DEQ may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

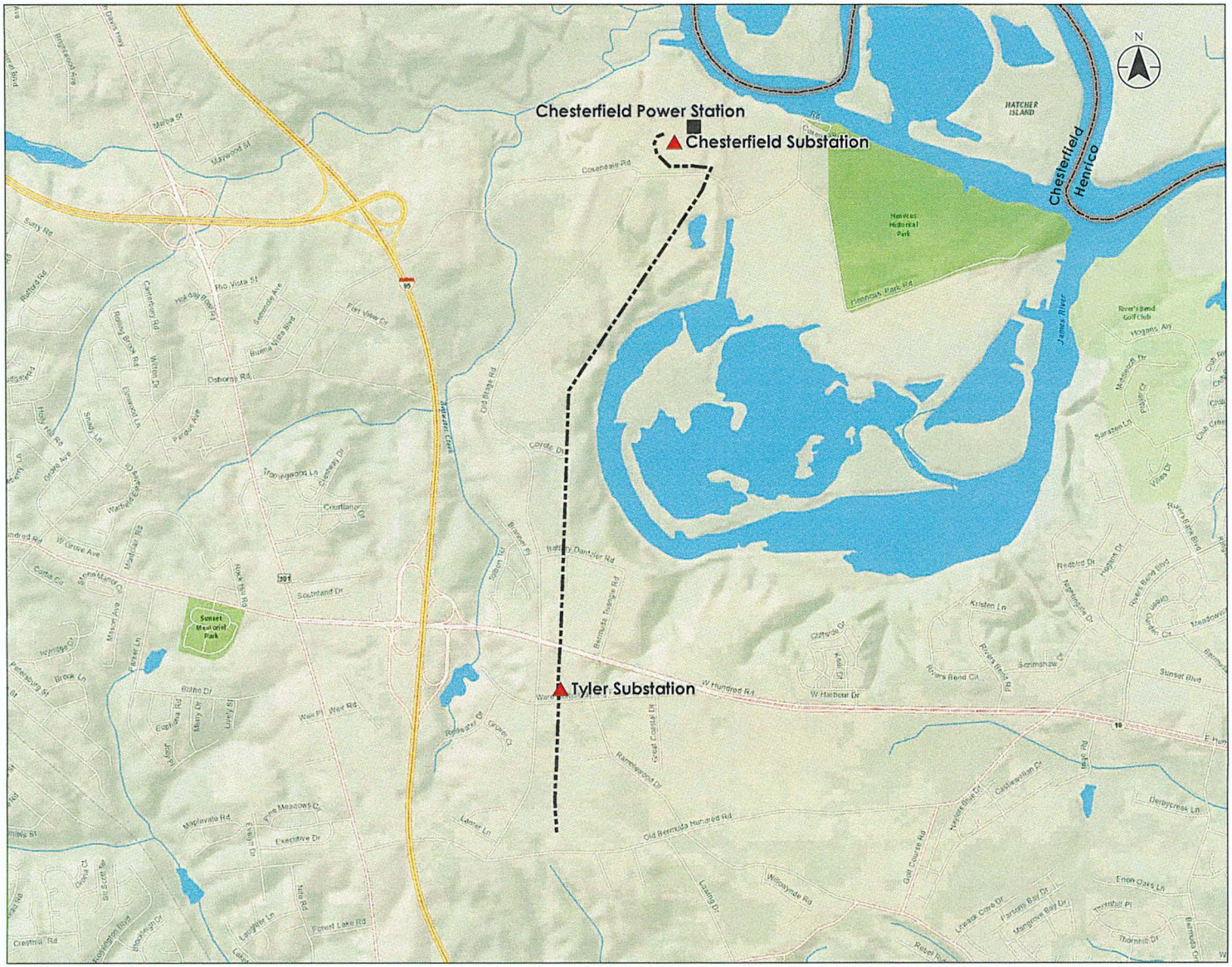


Figure No.
1

Title
Project Overview Map

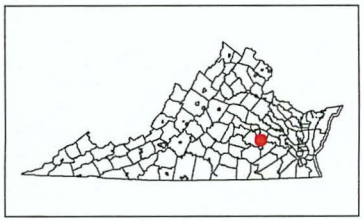
Client/Project
Dominion Energy Virginia
Line 205 and Line 2003
Chesterfield - Tyler 230 kV Rebuild

Project Location
Chesterfield County, Virginia

203401247
Prepared by LJS on 2019-01-08
Technical Review by MQS on 2019-01-09
Independent Review by CPG on 2019-01-24

0 2,000 4,000 Feet
1:24,000 (At original document size of 11x17)

- Existing Substation
- Existing Power Station
- Project Centerline



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Base features provided by Dominion Energy Virginia
3. Substation locations digitized from orthoimagery
4. County boundary provided by DCR
5. Base Map © National Geographic

Stantec Dominion Energy

Page 01 of 01

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

December 3, 2019

Ms. Martha Little, Deputy Director
Virginia Outdoors Foundation
600 East Main Street
Richmond, Virginia 23219

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Ms. Little:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Outdoors Foundation ("VOF") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the VOF would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information VOF may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Ms. Rayfield:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Department of Environmental Quality ("DEQ") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DEQ would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DEQ may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Ms. Henicheck:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Department of Environmental Quality ("DEQ") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DEQ would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DEQ may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

Mr. S. Rene Hypes, Project Review Coordinator
Natural Heritage Program
Virginia Department of Conservation and Recreation
Division of Natural Heritage
600 East Main Street, 24th Floor
Richmond, Virginia 23219

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Hypes:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Conservation and Recreation ("DCR") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DCR would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DCR may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Ms. Rhur:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Conservation and Recreation ("DCR") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DCR would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DCR may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

Ms. Julie Langan
Review and Compliance Division
Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Ms. Langan:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Department of Historic Resources ("DHR") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DHR would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DHR may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

Ms. Amy M. Ewing
Virginia Department of Games and Inland Fisheries
7870 Villa Park, Suite 400
Henrico, Virginia 23228

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Ms. Ewing:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Games and Inland Fisheries ("VDGIF") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the VDGIF would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information VDGIF may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Tignor:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Agriculture and Consumer Services ("VDACS") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If VDACS would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information VDACS may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Groh:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Forestry ("VDOF") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the VDOF would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information VDOF may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

Mr. Tony Watkinson
Habitat Management Division
Virginia Marine Resources Commission
Building 96, 380 Fenwick Road
Newport News, Virginia 23607

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Watkinson:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Marine Resources Commission ("VMRC") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the VMRC would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information VMRC may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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 Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Anderson:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the US Fish and Wildlife Service ("USFWS") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the USFWS would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information USFWS may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Kube:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the U.S. Army Corps of Engineers ("USACE") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the USACE would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information USACE may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

Mr. Michael Dowd
Department of Environmental Quality
Air Division
P.O. Box 1105
Richmond, Virginia 23218

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Dowd:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

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The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Department of Environmental Quality ("DEQ") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the DEQ would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DEQ may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Felix:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Federal Aviation Administration (FAA) submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If the FAA would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information FAA may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

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

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Denny:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Aviation ("DOAV") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If DOAV would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information DOAV may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 3, 2019

Mr. Bart Thrasher
Richmond District Engineer
Virginia Department of Transportation
Richmond District Office
2430 Pine Forest Drive
Colonial Heights, Virginia 23834

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Thrasher:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that the Virginia Department of Transportation ("VDOT") submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If VDOT would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information VDOT may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

December 3, 2019

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

Dominion Energy®

Mr. Andrew Gillies
Planning Director
Chesterfield County
9800 Government Center Parkway
Chesterfield, Virginia 23832

RE: Dominion Energy Virginia's Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield County, Virginia
Applicant: Virginia Electric and Power Company (Dominion Energy Virginia)

Dear Mr. Gillies:

Dominion Energy Virginia (the "Company") is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County (collectively, the "Rebuild Project"). 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, the Company will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

The Company is preparing an application for a Certificate of Public Convenience and Necessity ("CPCN") from the Virginia State Corporation Commission ("SCC"). At this time, in advance of the SCC filing, the Company respectfully requests that Chesterfield County submit any comments or additional information that would have bearing on the proposed Rebuild Project within 30 days of the date of this letter. If Chesterfield County would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 771-4061 or lane.e.carr@dominionenergy.com. The Company appreciates your assistance with this project review and looks forward to any additional information Chesterfield County may have to offer.

Sincerely,

Lane Carr
Siting and Permitting Specialist

Enclosed: Project Overview Map

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

December 17, 2019

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

Re: Proposed Chesterfield-Tyler Transmission Lines Partial Rebuild
Chesterfield County, Virginia

Dear Mr. Carr:

This will respond to the request for comments regarding the Proposed Chesterfield-Tyler Transmission Lines Partial Rebuild, prepared by Dominion Energy Virginia. Specifically, Dominion has proposed to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines between Chesterfield Power Station and Tyler Substation in Chesterfield County, Virginia.

We reviewed the provided project documents and found the proposed project is outside the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and will not require a permit from this agency. Should any changes to the planned work result in work performed in, or construction access through, tidal wetlands, a tidal wetlands permit will be required from the VMRC.

Please be advised that the VMRC pursuant to Chapter 12, 13, & 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. 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) 247-8028 or by email at mark.eversole@mrc.virginia.gov. Thank you for the opportunity to comment.

Sincerely,

Mark Eversole
Environmental Engineer, Habitat Management

MCE/keb
HM

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

December 16, 2019

Mr. Lane Carr
Dominion Virginia Power
10900 Nuckols Rd.
Glen Allen, VA 23060

RE: Wetland Impact Consultation; Proposed Proposed Chesterfield-Tyler 230 kV Transmission Lines Partial Rebuild, Chesterfield Virginia

Dear Mr. Carr:

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 Virginia Power (here after, Dominion) regarding potential wetland impacts on the above referenced project. Dominion is proposing to rebuild approximately 2.6 miles of its double circuit 230 kV transmission lines, Lines #2003 and #205, which are located between the Chesterfield Power Station and 0.6 mile south of the Tyler Substation in Chesterfield County. 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 service to customers. The proposed route is entirely within existing transmission line right-of-way; however, Dominion will be pursuing approximately 0.2 acres of additional right-of-way to maintain a buffer area to adequately protect, maintain, and provide safe clearances for the existing and proposed facilities located on the right-of-way and within the Company's Tyler Substation.

Dominion conducted a wetlands delineation which identified both wetland areas and stream corridors within the transmission line alignment. Because this project proposes to use existing Dominion right-of-way, no other alternatives for this project were considered. Given that this project involves rebuilding the transmission line; Dominion anticipates minimum permanent impacts to State waters associated with this project.

Summary of Findings

The delineation of wetlands and other waters of the U.S. was performed for the Chesterfield-Hopewell 230 kV Transmission Line Rebuild which overlaps with the proposed Rebuild Project. The Company submitted the results of this delineation to the U.S. Army Corps of Engineers ("Corps") in October 2018 for confirmation. An additional 1,000 feet of ROW included in the Rebuild Project was not part of the Chesterfield-Hopewell 230 kV Transmission Line Rebuild project delineation.

Therefore, the Company delineated wetlands with the additional ROW in March 2019. The results of the delineation have been submitted to the Corps for confirmation. Total jurisdictional resources within the proposed Rebuild Project right-of-way is provided in the table below:

Jurisdictional Resources within Rebuild Project ROW

Resource	Acreage (±)
Palustrine Emergent Wetland	0.53
Palustrine Scrub-shrub Wetland	1.12
Open water	0.14
Jurisdictional Ditches	0.003 (64 linear feet)
Upper Perennial Streams	0.14 (1,496 linear feet)
Intermittent Streams	0.01 (346 linear feet)

DEQ recommends structures should be sited to avoid wetlands to the extent practicable and should be sited outside of stream channels. Timbering debris should not be placed in wetlands or streams. 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

Based upon review of the information provided by Dominion, we offer the following recommendations:

1. Prior to commencing project work, all wetlands and streams within the project corridor should be field delineated and verified by the U.S. Army Corps of Engineers (the Corps), using accepted methods and procedures.
2. Wetland and stream impacts should be avoided and minimized to the maximum extent practicable. Stream impacts should be minimized or avoided by spanning the transmission line across each stream. No foundations should be placed within streambeds. Where access is required across a wetland, removable mats should be used to reduce compaction and rutting. Towers should be placed avoid wetlands, wherever possible. To the extent where any footings must be installed in wetlands, each footing should occupy the minimum space necessary. When excavation for a structure is necessary in a wetland, excess spoil should not be disposed of in adjacent wetland areas unless authorized by a state or federal wetland permit.
3. If the scope of the project changes, additional review will be necessary by this office.

4. At a minimum, compensation for impacts to State Waters, if necessary, should be in accordance with all applicable state wetland regulations and wetland permit requirements, including the compensation for permanent conversion of forested wetlands to emergent wetlands.
5. Any temporary impacts to surface waters associated with this project should require restoration to pre-existing conditions.
6. 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.
7. 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.
8. No machinery may enter surface waters, unless authorized by a Virginia Water Protection (VWP) permit.
9. 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.
10. 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.
11. 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 permit. Wet, excess, or waste concrete should be prohibited from entering surface waters.
12. 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.
13. Consider mitigating impacts to forested or converted wetlands by establishing new forested wetlands within the impacted watershed.

Further, the following permits may be required:

1. If the project qualifies for a Nationwide Permit 12 (NWP 12) from the Corps, then a Virginia Water Protection (VWP) permit is not necessary. If the applicant does not obtain a NWP 12, then a VWP permit may be necessary.
2. If the project proposes permanent impacts to more than one-half (1/2) acre of wetlands, then a VWP permit will be required from DEQ.

Should you have any questions, please don't hesitate to contact me at 804-698-4007 or at **michelle.henicheck@deq.virginia.gov**.

Sincerely,

Michelle Henicheck

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

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

Stantec Consulting Services Inc.
5209 Center Street, Williamsburg Virginia 23188-2680

March 20, 2018
Revised: September 5, 2018
File: 203401053

Attention: Ms. Elaine Holley
U.S. Army Corps of Engineers
9100 Arboretum Parkway, Suite 235
Richmond Virginia 23236
Via Email: Elaine.K.Holley@usace.army.mil

Dear Ms. Holley:

Reference: **Request for Preliminary Jurisdictional Determination**
Chesterfield – Hopewell 230 kV Rebuild
Chesterfield County, Prince George County, City of Hopewell, Virginia
Start: Latitude: 37.379681° Longitude: -77.387324°
Terminus: Latitude: 37.290017° Longitude: -77.283916°

Applicant: Mr. John Mulligan
Virginia Electric and Power Company
701 East Cary Street, 12th Floor
Richmond Virginia 23219

Stantec Consulting Services Inc. (Stantec) has been retained by Virginia Electric and Power Company, doing business as Dominion Energy Virginia, to conduct a detailed investigation of waters of the U.S., including wetlands (WOUS), on the above-referenced project. The project consists of an approximate 10.90-mile existing 230-kV transmission line right-of-way (ROW) within the Appomattox River, Cattail Creek, and James River drainage basins in Chesterfield County, Prince George County, and the City of Hopewell, Virginia (Figure 1). An approximate 0.43-mile portion of the project area located south at the Chesterfield Power Station has been excluded from the study limits because of land disturbing activities associated with another project. The project area originates north of Coxendale Road and east of Old Stage Road and primarily runs south and southeast, crossing, but not limited to, West Hundred Road, Ware Bottom Spring Road, Ramblewood Drive, Bermuda Orchard Lane, Enon Church Road (Route 746), the Appomattox River, Interstate 295, River Road (Route 645), and Winston Churchill Drive. The study area terminates at the Hopewell Cogeneration Facility, located north of Borrow Pit Road, east of South 1st Avenue, south of Winston Churchill Drive, and west of Hercules Road. The project area can be accessed via Chesterfield Power Station, Coyote Drive, Batter Dantzler Court, West Hundred Road, Old Bermuda Hundred Road, Loretto Way, the Appomattox River Regional Park, River Road, and South 1st Avenue (Figure 2). A copy of the Pre-Application and/or Jurisdictional Waters Determination Request Form is provided as Appendix A.

Off-site Evaluation

Prior to conducting fieldwork, Stantec consulted the U.S. Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map for Drewrys Bluff, Virginia (1994), Chester, Virginia (1987), and Hopewell, Virginia (1987), the National Wetlands Inventory Interactive Mapper (NWI), administered by the U.S. Fish and Wildlife Service (USFWS), and the SSURGO Soil Survey, administered by the Natural Resources Conservation Service (NRCS). The USGS quad maps depicts the majority of the study area within and existing transmission ROW with gentle to moderately sloping terrain along with perennial and intermittent stream channels. The Appomattox River and Cattail Creek along with associated wetlands are also mapped within the study area. The NWI map (Figure 3) depicts palustrine forested, scrub-shrub, and emergent wetlands; freshwater perennial and intermittent stream channels; freshwater ponds; and tidal riverine channels within the project boundaries. Additionally, the soil survey (Figure 4) indicates that the site is underlain primarily by Ochrepts and Udults and Lucy-Orangeburg loamy sands. Of these, Emporia soils with Kinston inclusions, Emporia and Slagle soils with Kinston inclusions, Lynchburg-Slagle Complex with Kinston Inclusions, Udorthents with Argent inclusions, and Fluvaquents are classified by the NRCS as hydric in Chesterfield County, Prince George County, and the City of Hopewell, Virginia.

On-site Evaluation

Fieldwork was conducted during the months of March 2018 and July 2018 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 (Version 2.0)*. Wetland flags were placed in the field by Stantec and sequentially numbered to provide an on-site record of the delineation. The data sheets (Appendix B) used in this investigation are attached along with the Delineation Map (Figure 5) showing the GPS-located limits of wetlands and other water features, as well as data point locations.

Site Description

Jurisdictional features identified by Stantec within the project limits may be classified as palustrine scrub-shrub and emergent wetlands; perennial, intermittent and ephemeral stream channels; riverine tidal waters; jurisdictional ditches; and open waters. Wetland vegetation is typified by sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus taeda*), soft rush (*Juncus effusus*), sweetbay magnolia (*Magnolia virginiana*), lurid sedge (*Carex luridia*), sawtooth blackberry (*Rubus argutus*), deer tongue (*Dichanthelium clandestinum*), velvet panicgrass (*Dichanthelium scoparium*), wool grass (*Scirpus cypernus*), and roundleaf greenbriar (*Smilax rotundifolia*). The transition from wetland to upland is generally identified by a shift in the vegetative community and a shift from hydric to non-hydric soils. Table 1 shows the dimensions of the identified jurisdictional resources within the project area.

Stantec

March 20, 2018; Revised September 5, 2018
Ms. Elaine Holley

Reference: Chesterfield – Hopewell 230 kV Rebuild

Table 1. Wetlands and WOUS Calculations

PSS (Acres)	**PEM** (Acres)	**Riverine Tidal Waters** (R1) Acres (LF)	**Stream Channels** (R3) Acres (LF)	**Stream Channels** (R4) Acres (LF)	**Stream Channels** (R6) Acres (LF)	**Jurisdictional Ditches** Acres (LF)	**Open Waters** (Acres)
2.05	19.39	3.63 (386)	0.59 (3,428)	0.08 (1,425)	0.02 (459)	0.01 (167)	0.15

On behalf of our client, Stantec respectfully requests that the Corps confirm our delineation. We would appreciate the opportunity to meet with you on site to present our fieldwork. Please call to set up a meeting date or to discuss any questions regarding our investigation.

Thank you for your cooperation in this matter.

Regards,

Stantec Consulting Services

Brendan Young
Ecologist
Phone: (757) 220-6869
Fax: (757) 229-4507
brendan.young@stantec.com

Scott Kupiec, PWD
Senior Ecologist
Phone: (757) 220-6869
Fax: (757) 229-4507
scott.kupiec@stantec.com

Enclosures: Figures 1, 2, 3, 4, and 5
Appendices A and B

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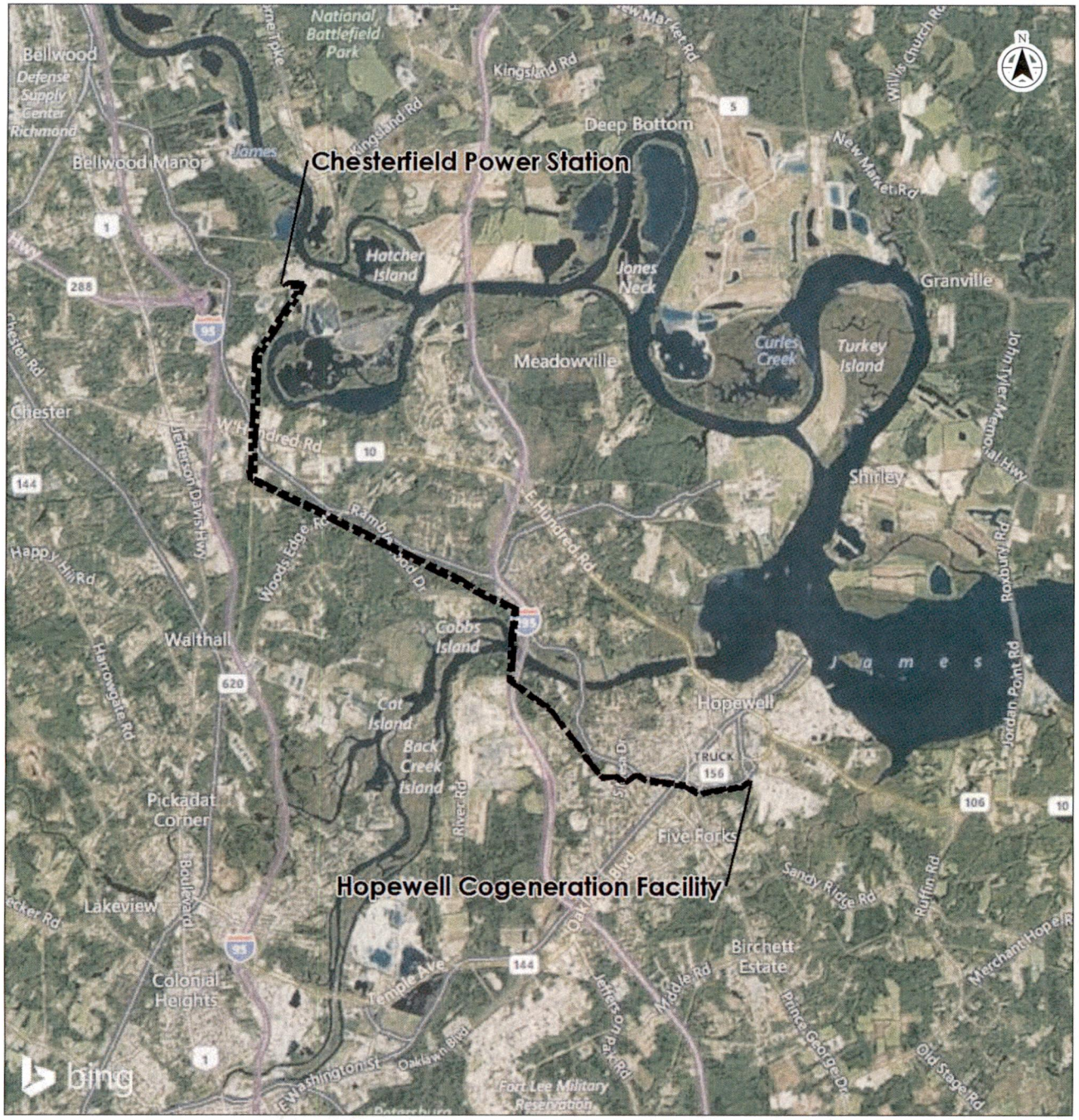

Project Limits

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Stantec

Project Location
Chesterfield and Prince George Counties and City of Hopewell, Virginia

203401053
Prepared by MGS on 2018-09-05
Technical Review by TPS on 2018-09-05
Independent Review by CSK on 2018-09-05

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Map Date: 2018-03-20

Figure No.
1

Title
Vicinity Map

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project Limits produced by data provided by Dominion Energy Virginia
3. Orthoimagery © Bing Maps
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

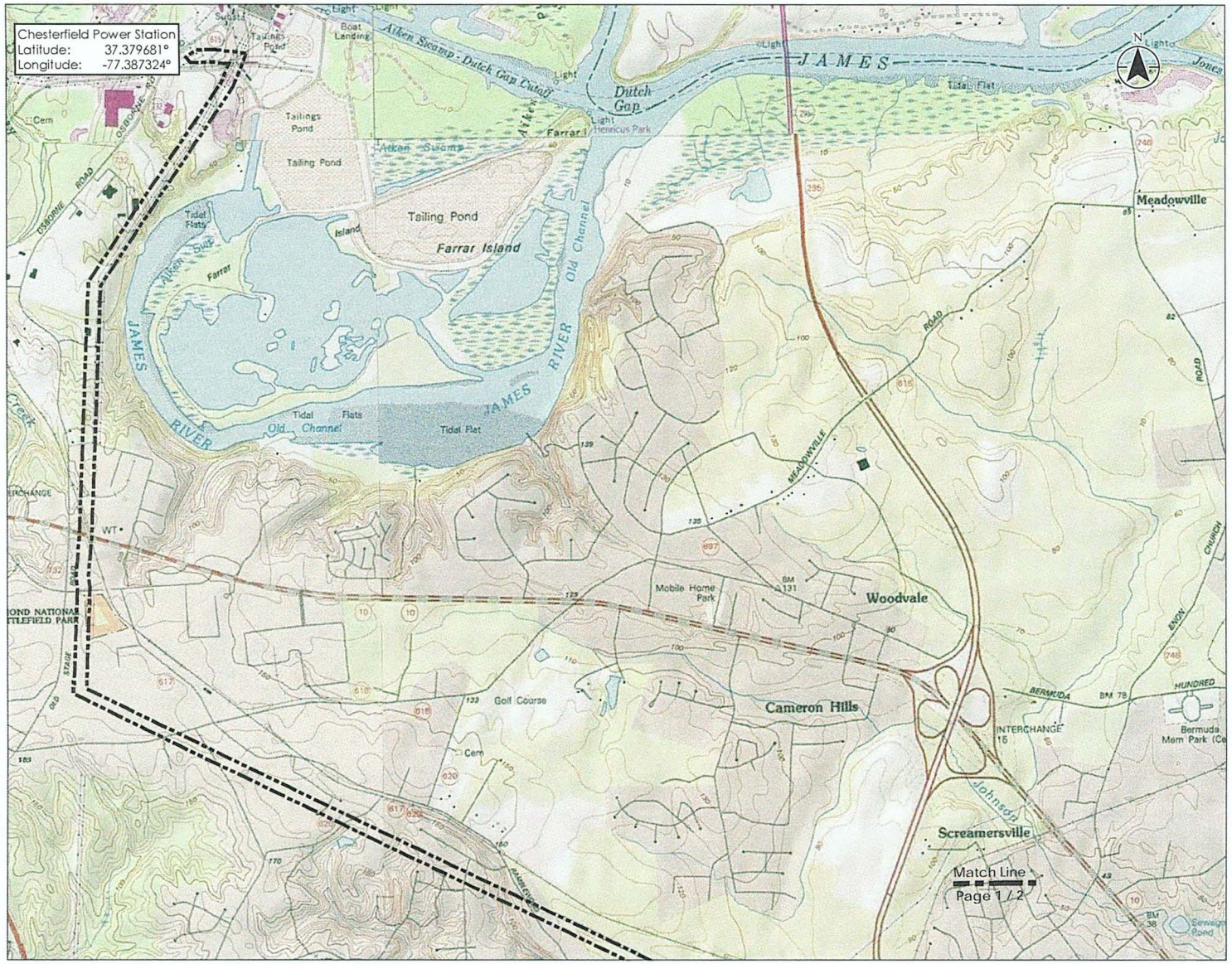

Figure No.
2

Title
Project Location Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by LJB on 2018-08-28
Technical Review by TPS on 2018-08-28
Independent Review by KP on 2018-08-28

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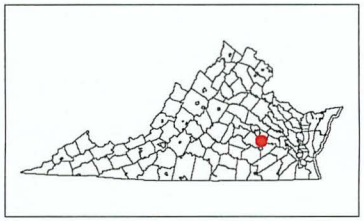
Project Limits



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
3. Topographic map © USGS 7.5 Minute Series Topographic Map Drewry's Bluff, VA Quadrangle, 1969 (Rev 1994), Chester, VA Quadrangle, 1994, and Hopewell, VA Quadrangle, 1996

Stantec

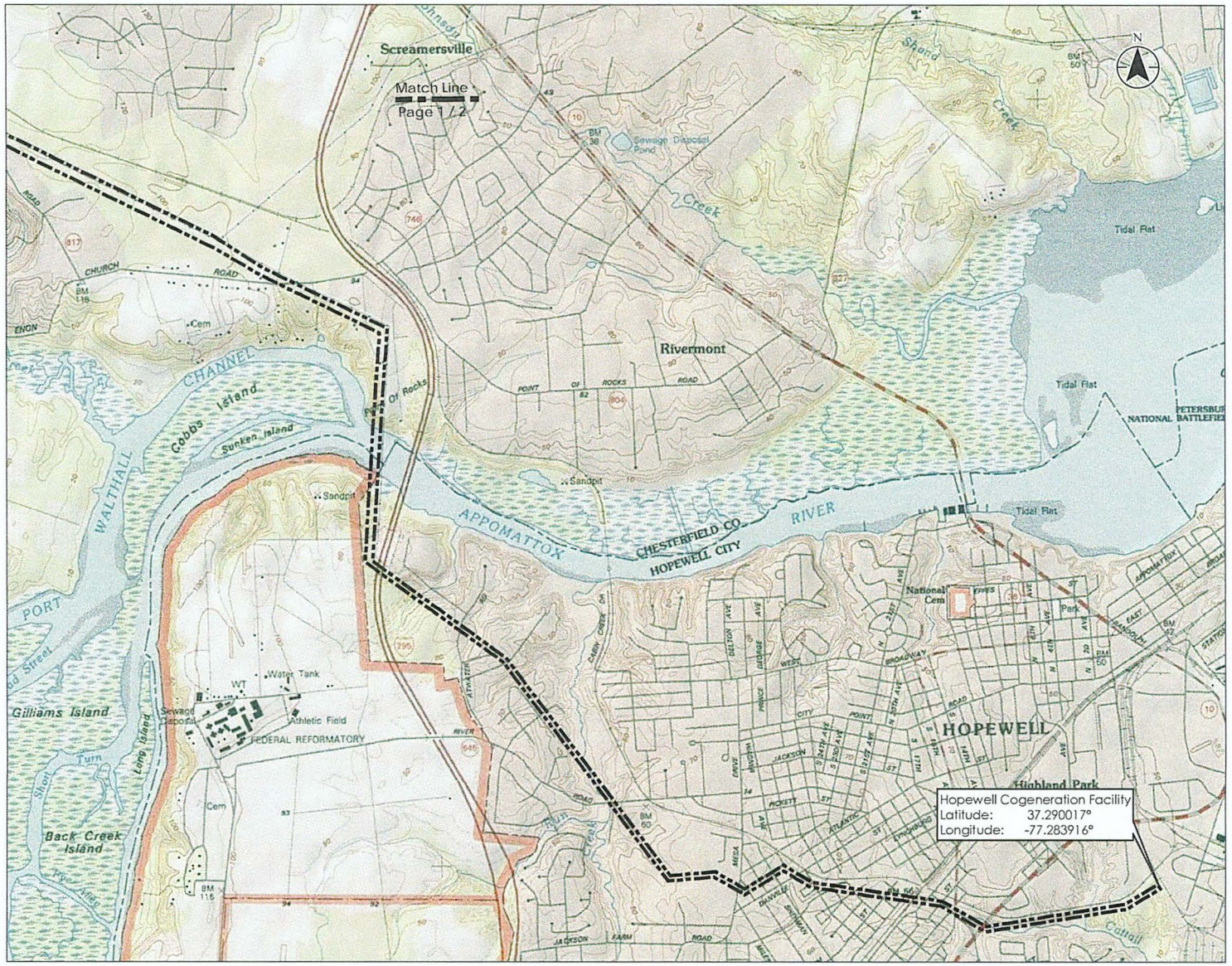


Figure No.
2

Title
Project Location Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by LJB on 2018-05-20
Technical Review by TPS on 2018-05-28
Independent Review by KP on 2018-05-28

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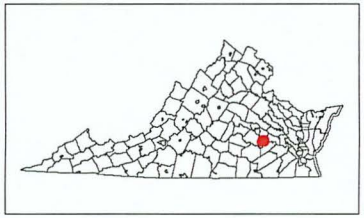
1:24,000 (At original document size of 11x17)

Project Limits



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
3. Topographic map © USGS 7.5 Minute Series Topographic Map Drewry's Bluff, VA Quadrangle, 1969 (Rev 1994), Chester, VA Quadrangle, 1994, and Hopewell, VA Quadrangle, 1996

Stantec

Page 02 of 02

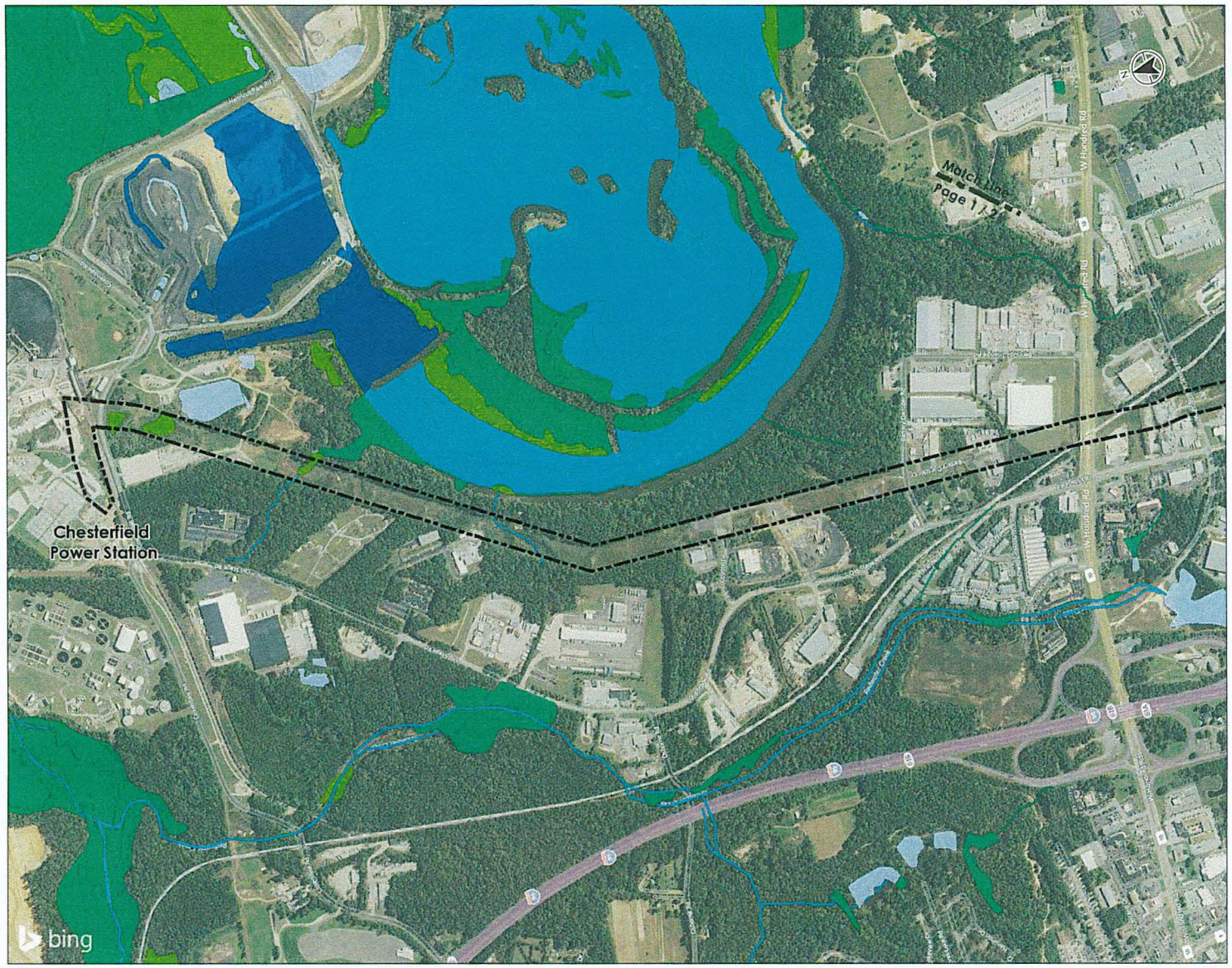


Figure No.
3

Title
National Wetlands Inventory Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YOP on 2018-08-24
Technical Review by MGS on 2018-08-27
Independent Review by KP on 2018-08-27

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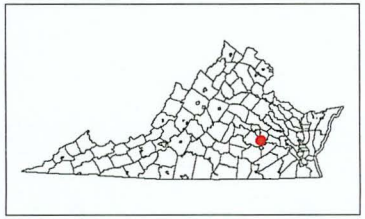
1:12,000 (At original document size of 11x17)

- Project Limits
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
3. Wetlands and waters data provided by USFWS National Wetlands Inventory (NWI)
4. Orthoimagery © Bing Maps
5. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

Stantec

Page 01 of 05

Figure No.
3

Title
National Wetlands Inventory Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YDP on 2018-05-24
Technical Review by MGS on 2018-05-27
Independent Review by KP on 2018-05-27

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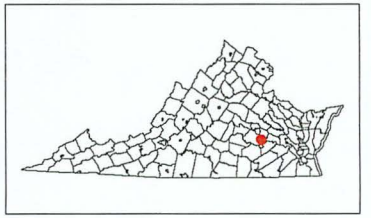
- Project Limits
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
3. Wetlands and waters data provided by USFWS National Wetlands Inventory (NWI)
4. Orthoimagery © Bing Maps
5. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

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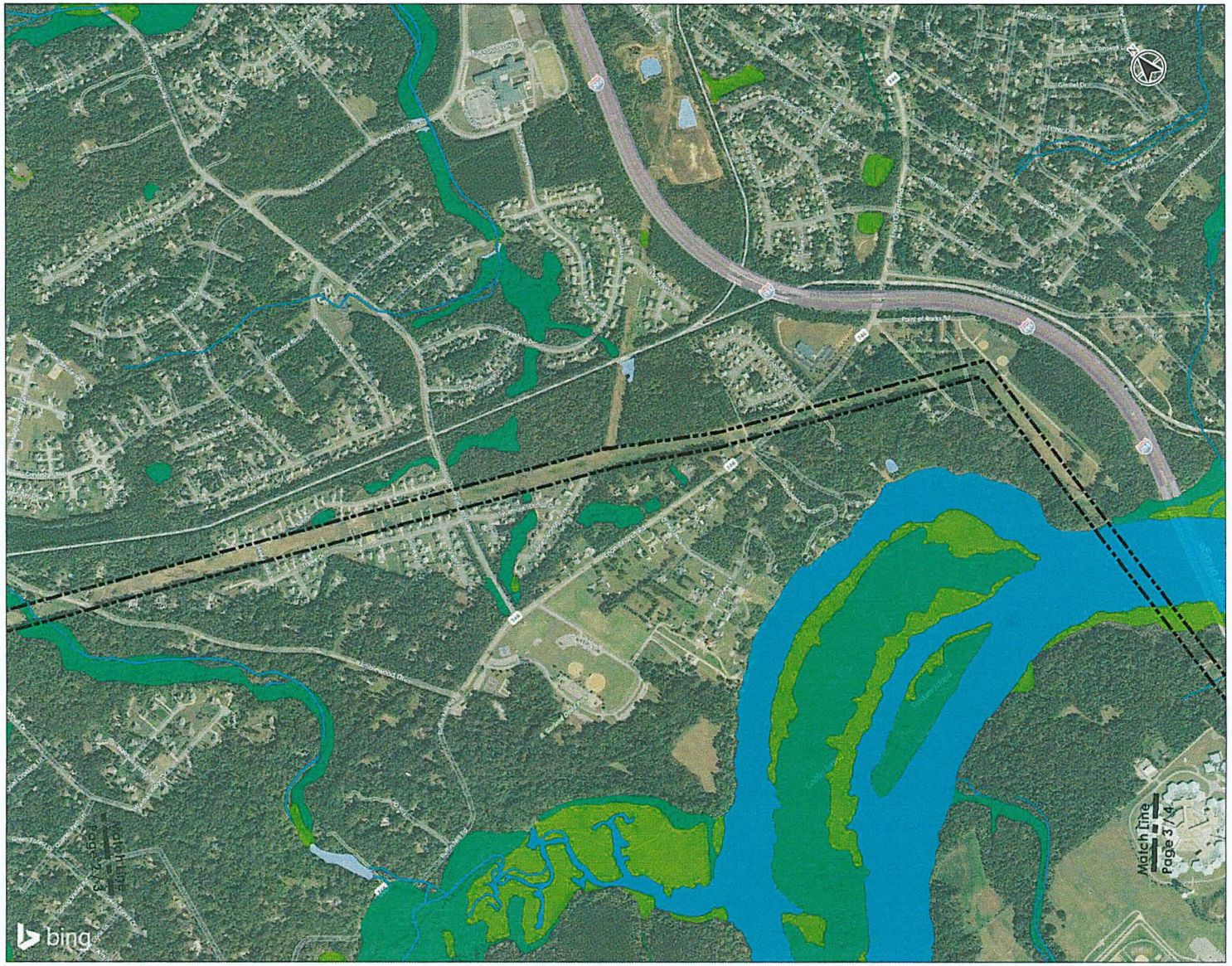

Figure No.
3

Title
National Wetlands Inventory Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YOP on 2018-08-24
Technical Review by MGS on 2018-08-27
Independent Review by KP on 2018-08-27

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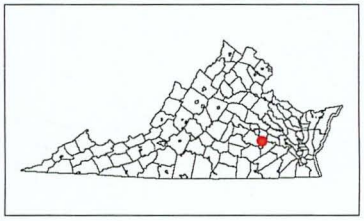
- Project Limits
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine



Notes
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Page 03 of 05

Figure No.
3

Title
National Wetlands Inventory Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YOP on 2018-08-24
Technical Review by MGS on 2018-08-27
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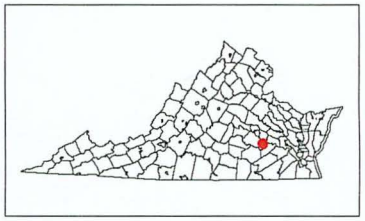

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Page 04 of 05

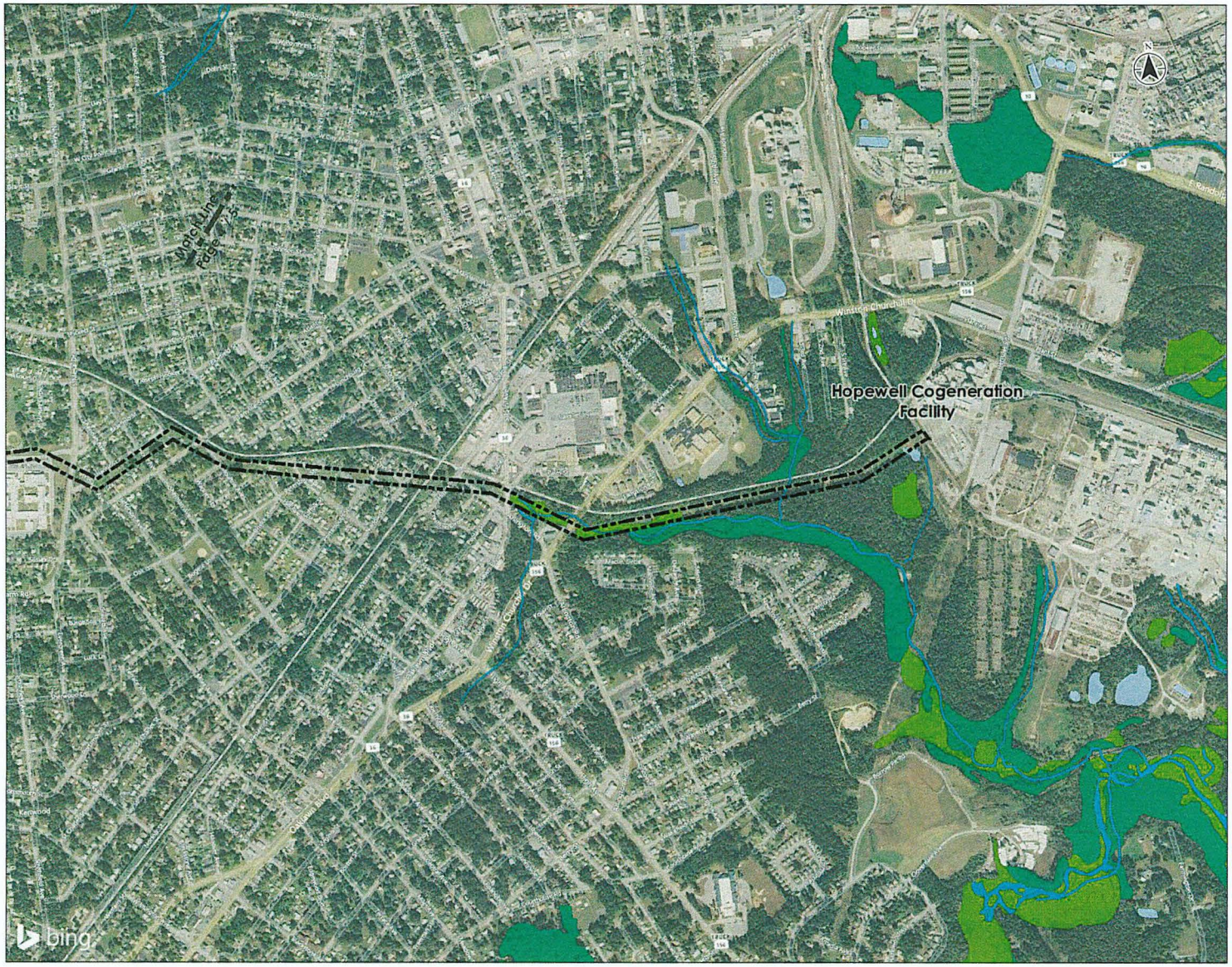

Figure No.
3

Title
National Wetlands Inventory Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YDP on 2018-05-24
Technical Review by MGS on 2018-05-27
Independent Review by KP on 2018-05-27

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- Project Limits
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
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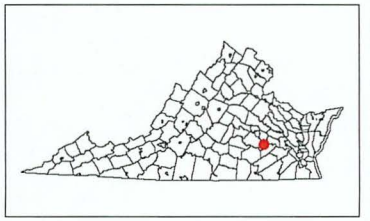
- Freshwater Pond
- Lake
- Other
- Riverine



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

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Page 05 of 05

Map Unit Symbol	Description	Map Unit Symbol	Description	Map Unit Symbol	Description
1A	Fluvaquents	23A	Peawick silt loam, 0 to 2 percent slopes	100	Hydraquents
1B	Ackwater silt loam, 2 to 6 percent slopes	23B	Peawick silt loam, 2 to 6 percent slopes	112B	Orangeburg-Faceville sandy loams, 2 to 6 percent slopes
11B	Emporia fine sandy loam, 2 to 6 percent slopes	25A	Slagle sandy loam, 0 to 2 percent slopes	157B	Faceville-Gritney fine sandy loams, 2 to 6 percent slopes
11C	Emporia fine sandy loam, 6 to 10 percent slopes	25B	Slagle sandy loam, 2 to 6 percent slopes	158B	Tetotum loam, clayey substratum, 2 to 6 percent slopes
12F	Emporia soils, 15 to 45 percent slopes	26	Udorthents, loamy	163B	Vaucluse sandy loam, 2 to 6 percent slopes
13D	Emporia and Slagle soils, 6 to 15 percent slopes	27	Udorthents, clayey	163C	Vaucluse sandy loam, 6 to 12 percent slopes
14	Kinston complex	28	Urban land	172D	Ochrepts and Udults, sloping
15	Made land	30B	Wickham fine sandy loam, 2 to 6 percent slopes	172F	Ochrepts and Udults, steep
15	Levy silt loam	33B	Coxville loam, 2 to 6 percent slopes	188	Dunbar fine sandy loam, 0 to 4 percent slopes
17	Lynchburg-Slagle complex	49B	Bourne fine sandy loam, 2 to 6 percent slopes	191	Aquults
17B	Gritney fine sandy loam, 2 to 6 percent slopes	67B	Lenoir loam, flooded, 0 to 4 percent slopes	212B	Lucy-Orangeburg loamy sands, 2 to 6 percent percent slopes
17C	Gritney fine sandy loam, 6 to 12 percent slopes	82B	Kempsville-Bourne complex, 2 to 6 percent slopes	W	Water

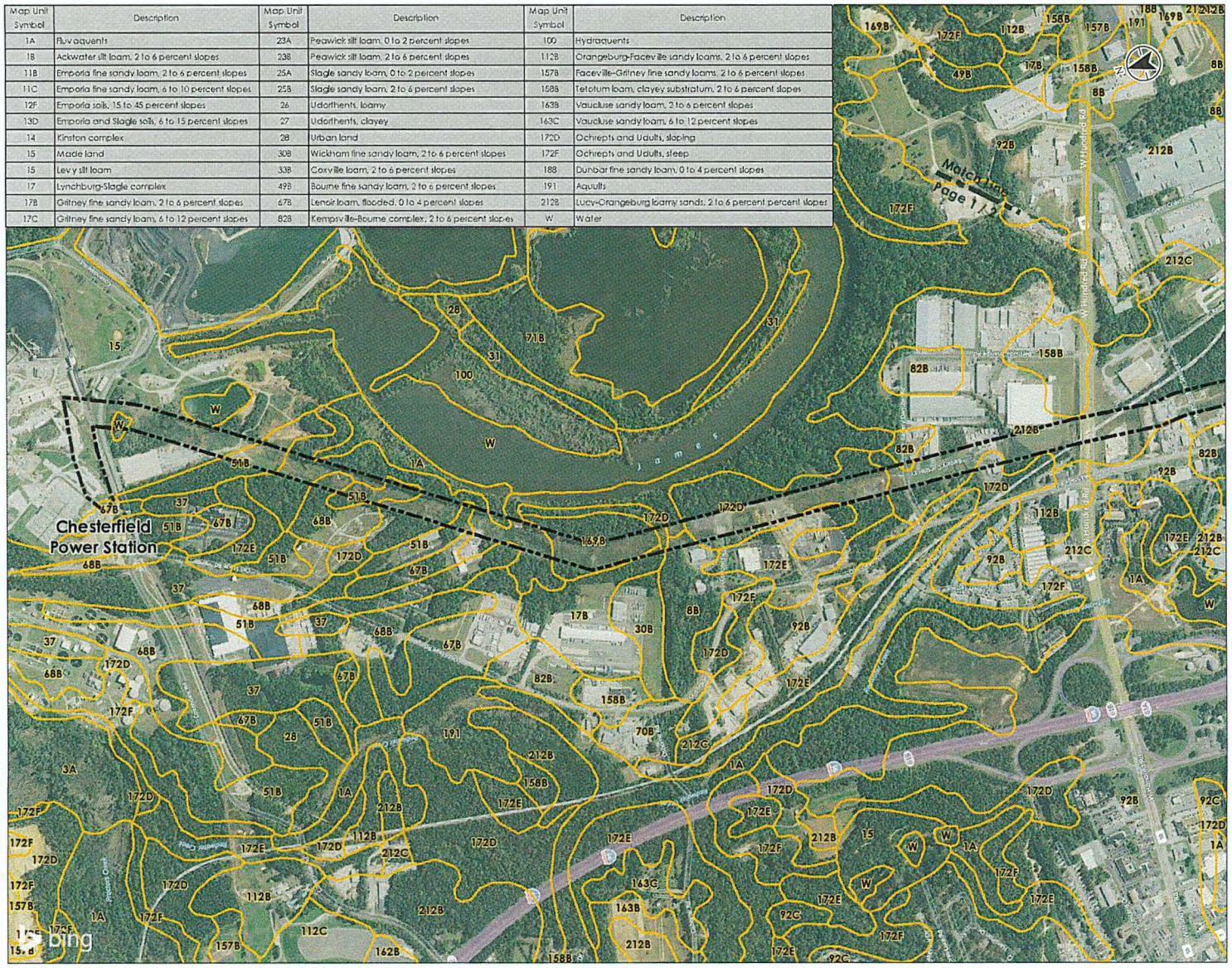

Figure No.
4

Title
Soils Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by ECL on 2018-01-31
Technical Review by MGS on 2018-08-27
Independent Review by KP on 2018-08-27

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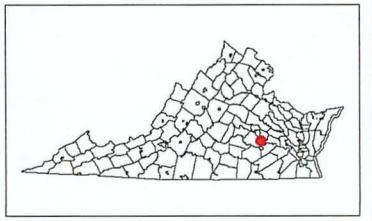
Project Limits
Soils



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
Soils data provided by USDA NRCS SSURGO Soil Survey
3. Orthoimagery © Bing Maps
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

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Page 01 of 05

Map Unit Symbol	Description	Map Unit Symbol	Description	Map Unit Symbol	Description
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1B	Ackwater silt loam, 2 to 6 percent slopes	23B	Peawick silt loam, 2 to 6 percent slopes	112B	Orangeburg-Faceville sandy loams, 2 to 6 percent slopes
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11C	Emporia fine sandy loam, 6 to 10 percent slopes	25B	Slagle sandy loam, 2 to 6 percent slopes	158B	Telotum loam, clayey substratum, 2 to 6 percent slopes
12F	Emporia soils, 15 to 45 percent slopes	26	Udorthents, loamy	163B	Vaucluse sandy loam, 2 to 6 percent slopes
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17C	Gritney fine sandy loam, 6 to 12 percent slopes	82B	Kempsville-Bourne complex, 2 to 6 percent slopes	W	Water

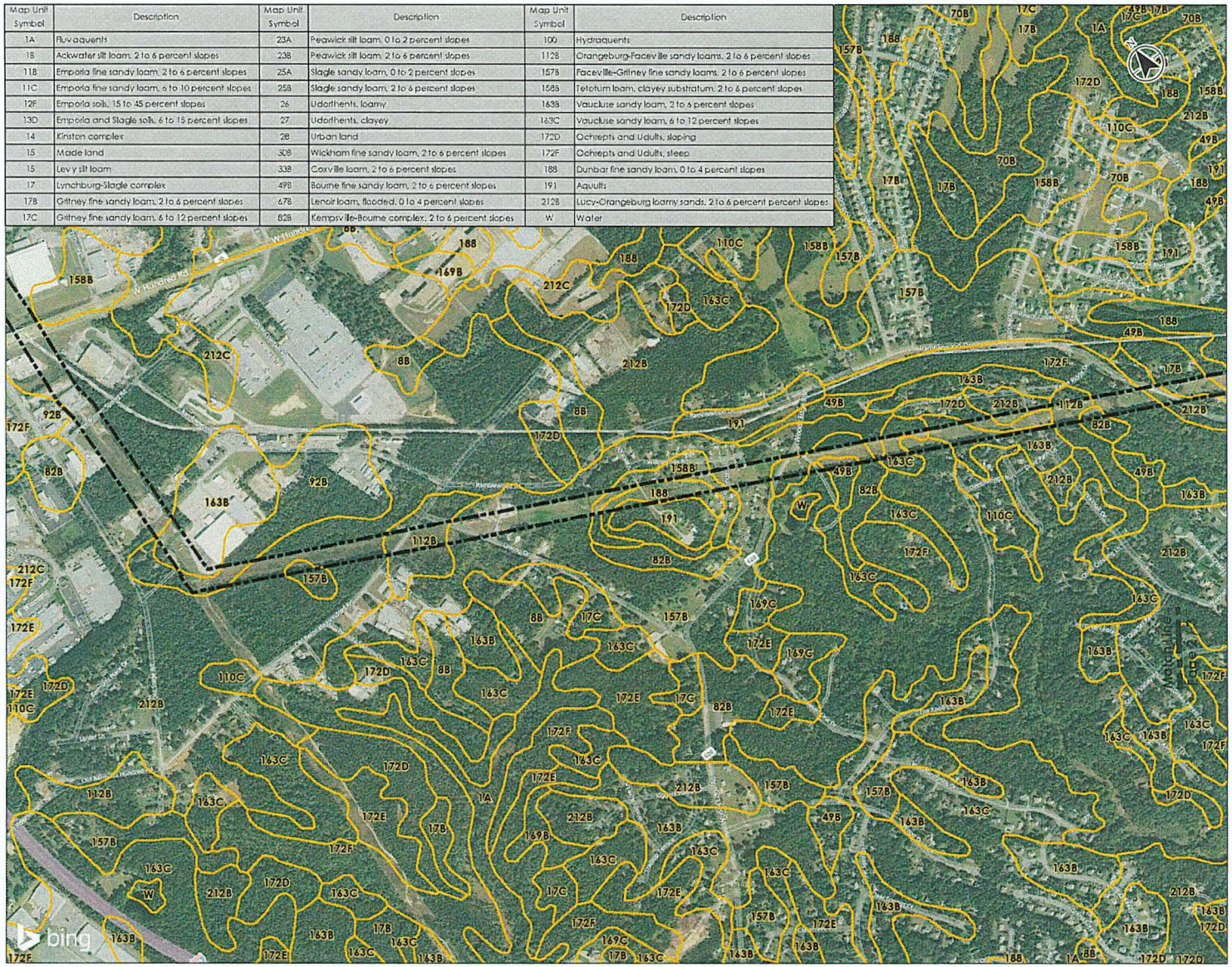

Figure No.
4

Title
Soils Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by ECL on 2018-01-31
Technical Review by MGS on 2018-05-27
Independent Review by KP on 2018-05-27

0 1,000 2,000 Feet
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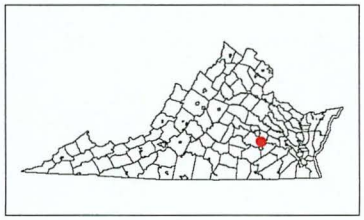
Project Limits
Soils



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
3. Soils data provided by USDA NRCS SSURGO Soil Survey
4. Orthoimagery © Bing Maps
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Map Unit Symbol	Description	Map Unit Symbol	Description	Map Unit Symbol	Description
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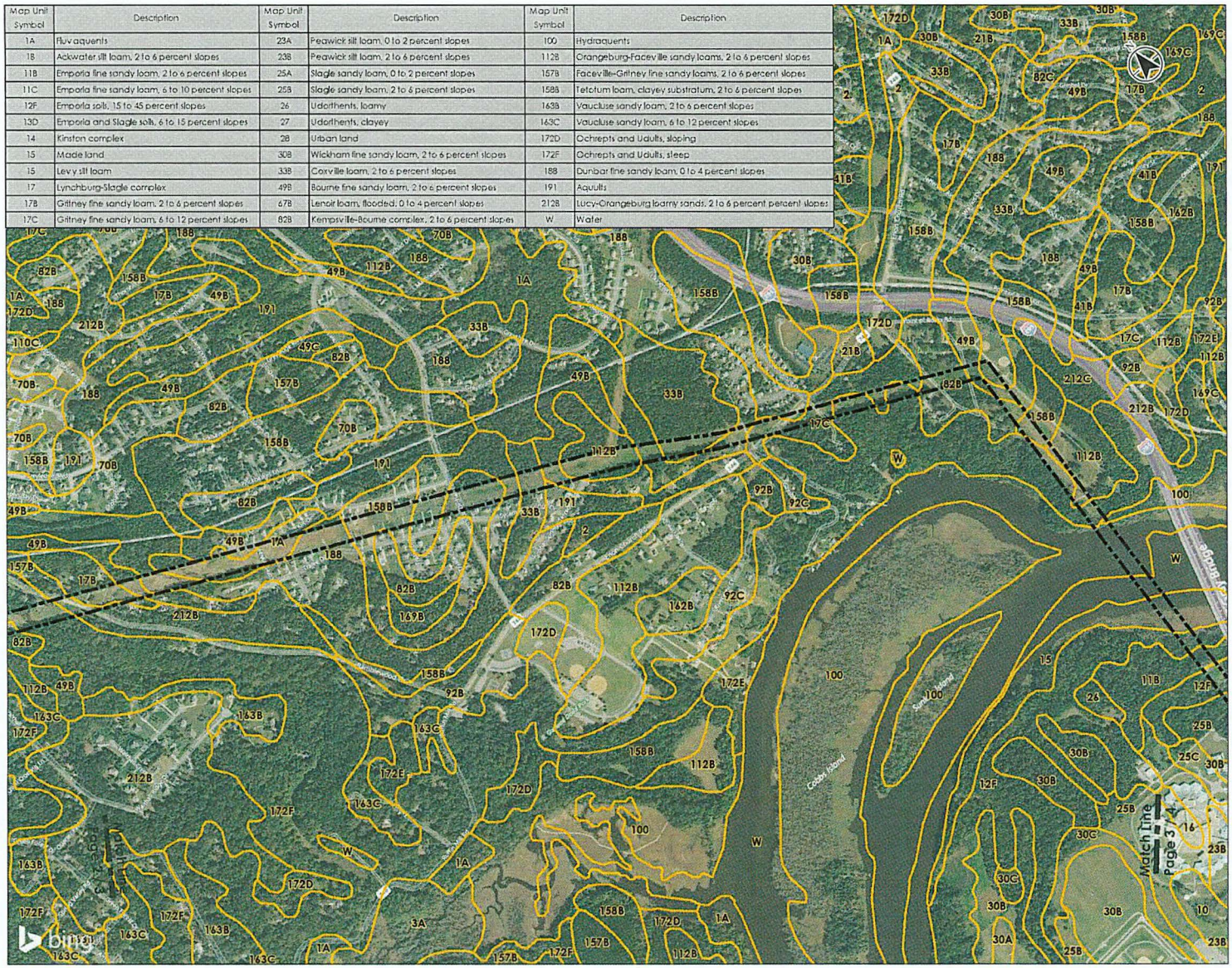

Figure No.
4

Title
Soils Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by ECL on 2018-01-31
Technical Review by MGS on 2018-06-27
Independent Review by KP on 2018-06-27

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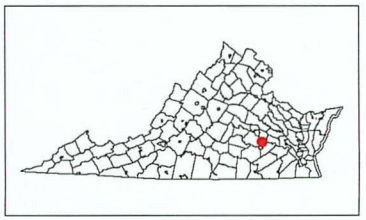
Project Limits
Soils



Notes
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2. Project limits produced from data provided by Dominion Energy Virginia
   Soils data provided by USDA NRCS SSURGO Soil Survey
3. Orthoimagery © Bing Maps
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

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Page 03 of 05

Map Unit Symbol	Description	Map Unit Symbol	Description	Map Unit Symbol	Description
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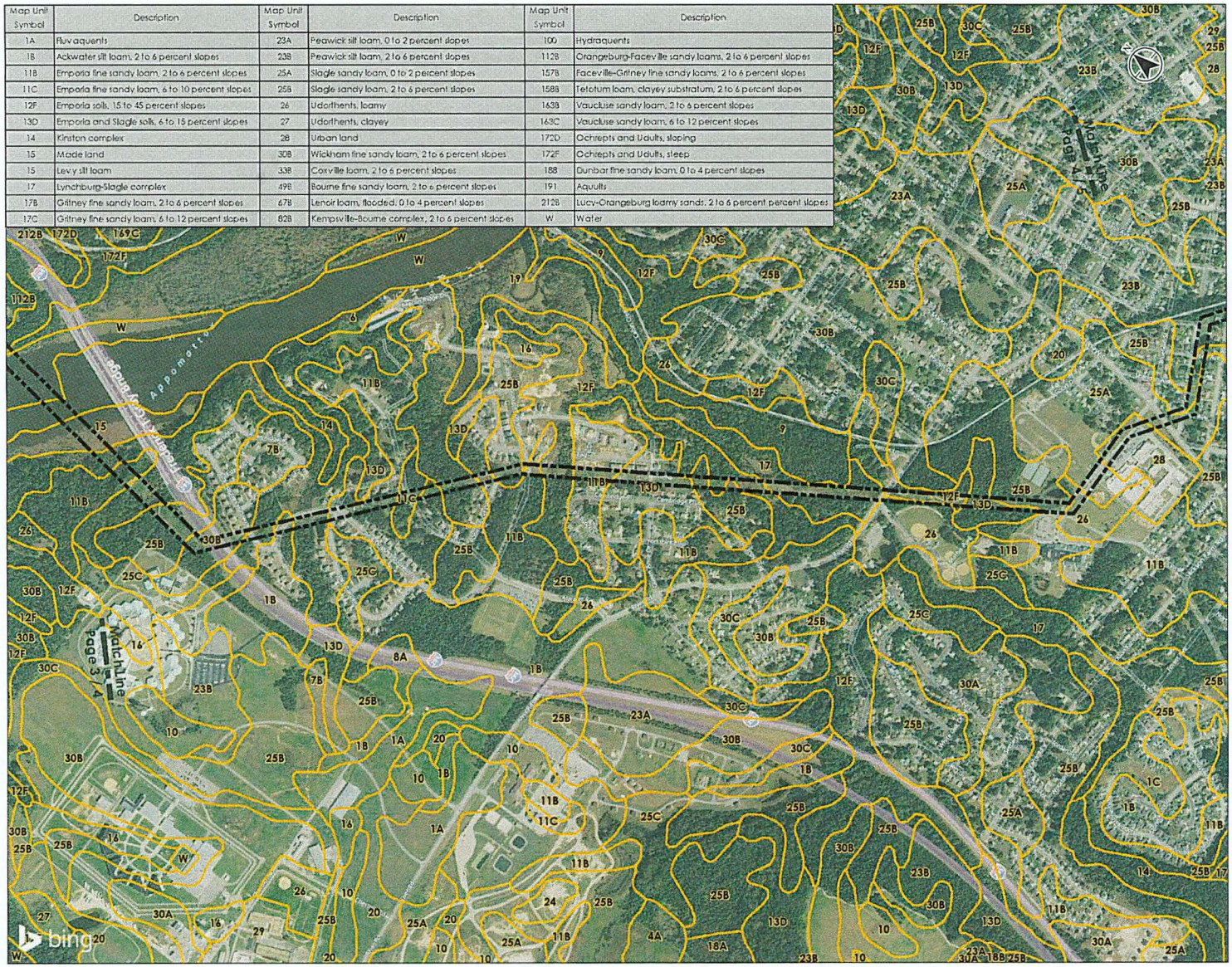

Figure No.
4

Title
Soils Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by ECL on 2018-01-31
Technical Review by MGS on 2018-08-27
Independent Review by KP on 2018-08-27

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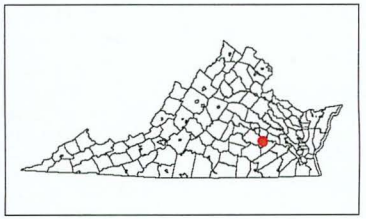
Project Limits
Soils



Notes
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Page 04 of 05

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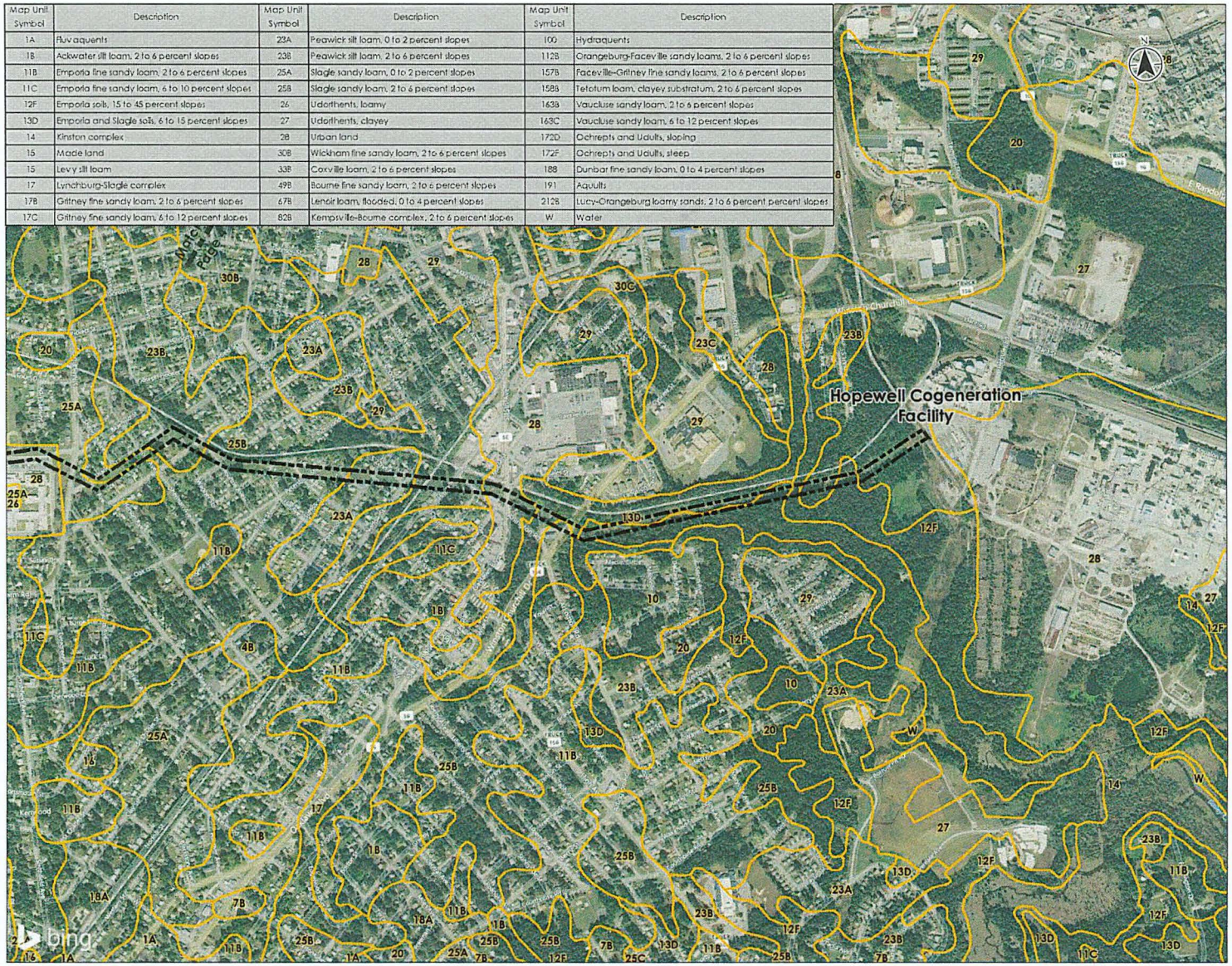

Figure No.
4

Title
Soils Map

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by ECL on 2018-01-31
Technical Review by MGS on 2018-08-27
Independent Review by KP on 2018-08-27

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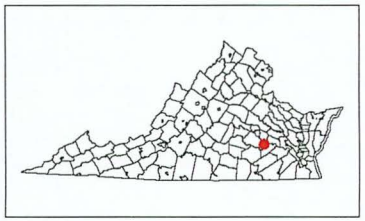

Notes
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2. Project limits produced from data provided by Dominion Energy Virginia
Soils data provided by USDA NRCS SSURGO Soil Survey
3. Orthoimagery © Bing Maps
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Page 05 of 05

Site Data	
Project Area	231.01 Acres ±
Project Length	10.90 Miles ±
Palustrine Scrub-Shrub Wetlands (PSS)	2.05 Acres ±
Palustrine Emergent Wetlands (PEM)	19.39 Acres ±
Tidal Stream Channels (R1)	3.63 Acres ± (386 L.F. ±)
Upper Perennial Stream Channels (R3)	0.59 Acres ± (3,428 L.F. ±)
Intermittent Stream Channels (R4)	0.08 Acres ± (1,425 L.F. ±)
Ephemeral Stream Channels (R6)	0.02 Acres ± (459 L.F. ±)
Open Waters	0.15 Acres ±
Jurisdictional Ditches	0.01 Acres ± (167 L.F. ±)

Figure No.
5

Title
Delineation Map

Map Date: 2018-03-20
Revised: 2018-04-24
Revised: 2018-09-05

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YOP on 2018-08-14
Technical Review by TPS on 2018-08-14
Independent Review by CSK on 2018-08-14

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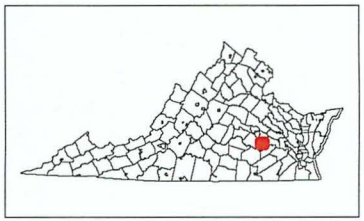
Project Limits
Page Index



Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits produced from data provided by Dominion Energy Virginia
3. Base Map © National Geographic

Stantec

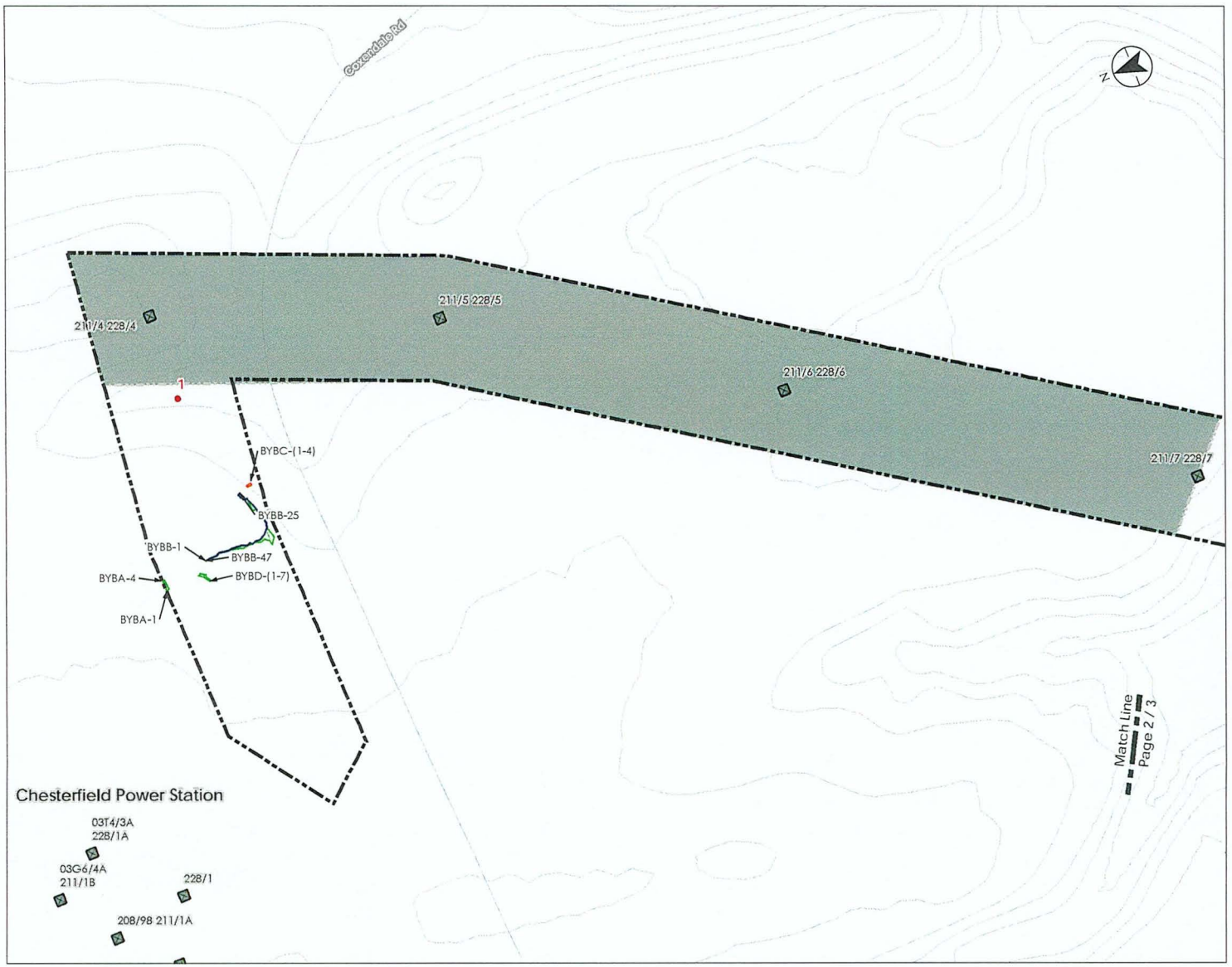


Figure No.
5

Title
Delineation Map

Map Date: 2018-03-20
Revised: 2018-04-24
Revised: 2018-09-05

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YOP on 2018-06-14
Technical Review by TPS on 2018-06-14
Independent Review by CSK on 2018-08-14

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- Data Point Location
- Flag
- Existing Tower Location
- Area Excluded from Study Area
- 2-Foot Contour
- Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)
- Approximate Palustrine Emergent Wetland Limits (PEM)
- Approximate Tidal Stream Channel Limits (R1)
- Approximate Upper Perennial Stream Channel Limits (R3)
- Approximate Intermittent Stream Channel Limits (R4)
- Approximate Open Water Limits (POW)
- Approximate Ephemeral Stream Channel Limits (R6)
- Approximate Jurisdictional Ditch Limits (JD)
- Non-Jurisdictional Stormwater Facility

Notes
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Topography generated from USGS 1/3 arc second digital elevation model raster dataset
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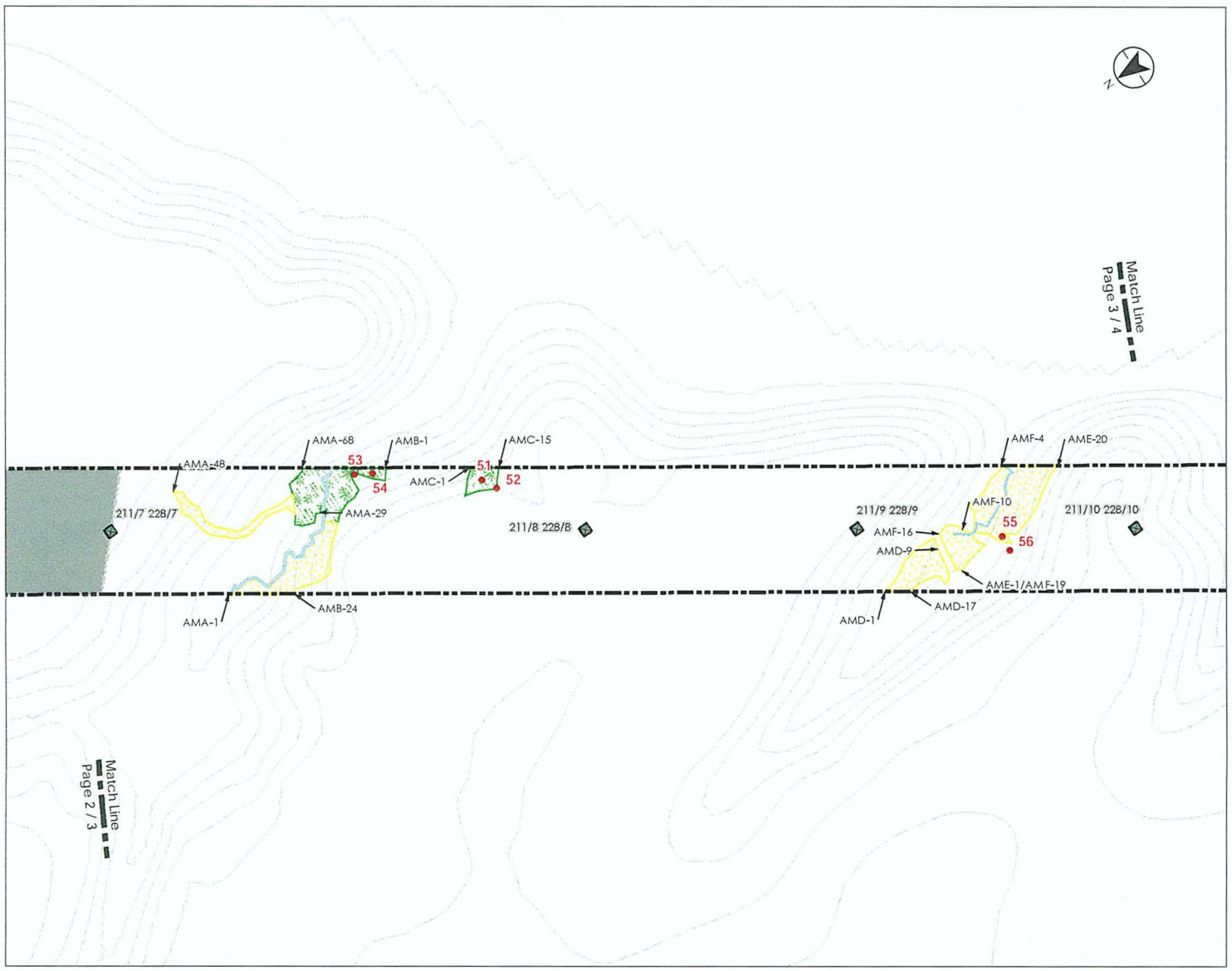

Figure No.
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Title
Delineation Map

Map Date: 2018-03-20
Revised: 2018-04-24
Revised: 2018-09-05

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YDP on 2018-08-14
Technical Review by TPS on 2018-08-14
Independent Review by CSK on 2018-08-14

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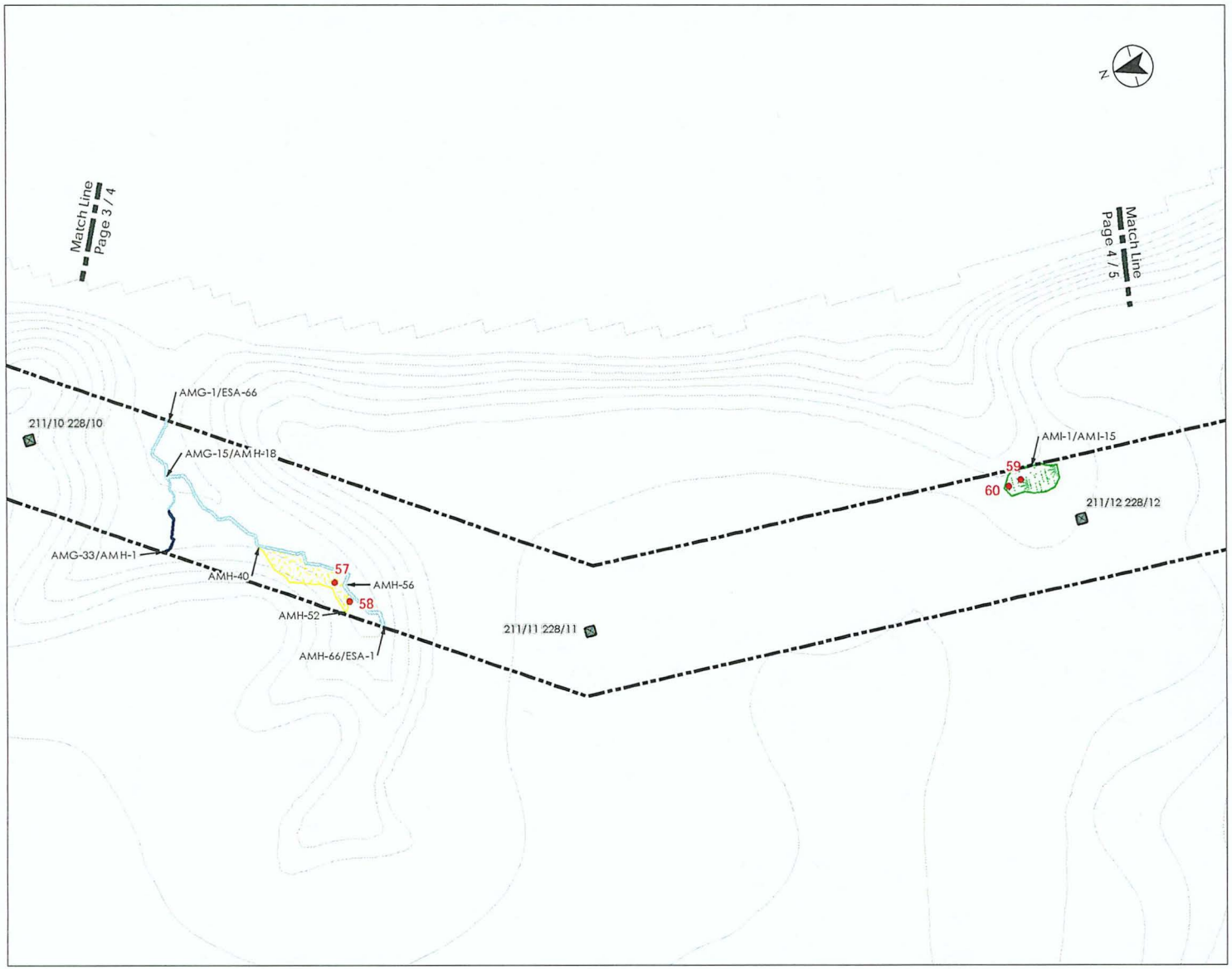

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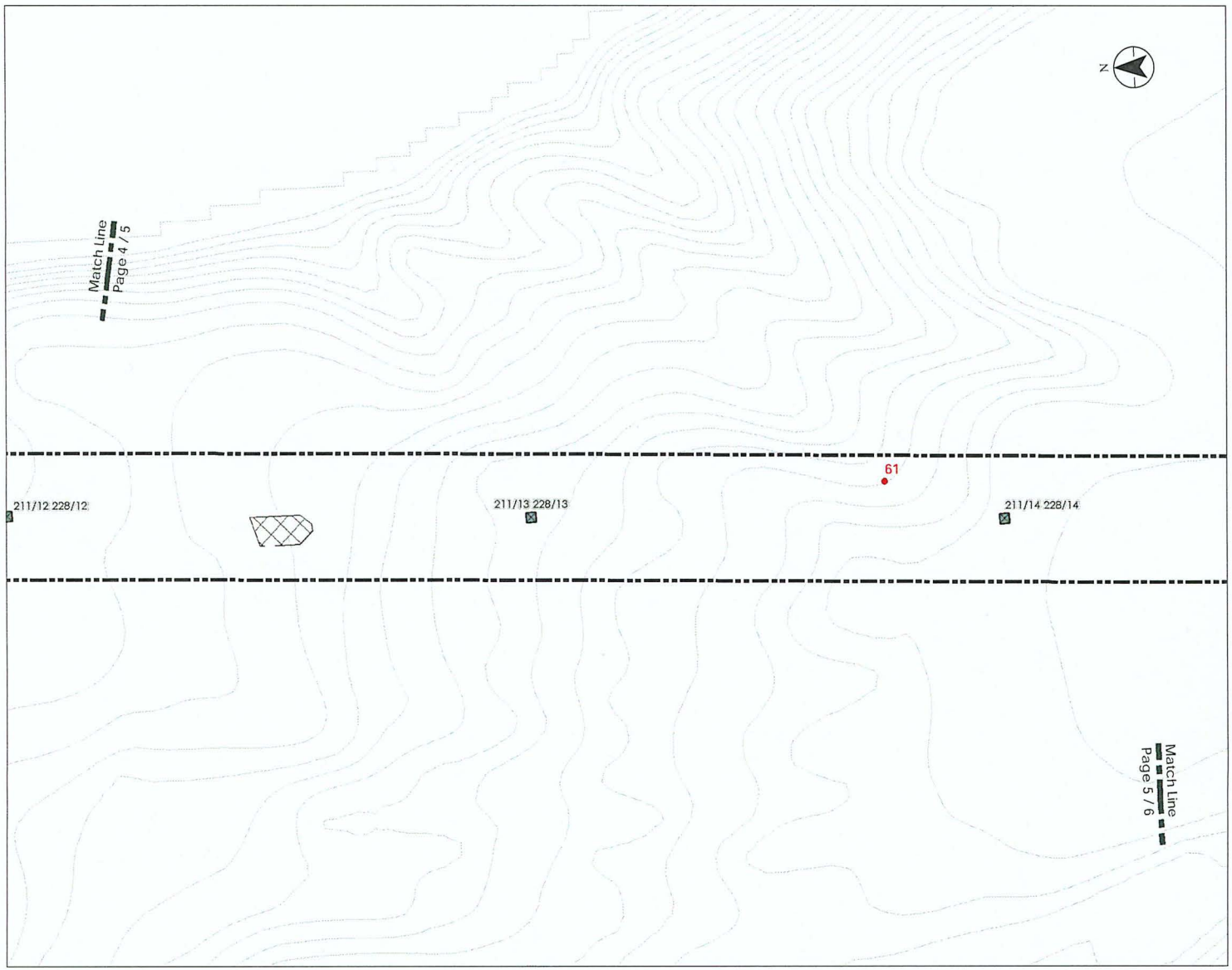

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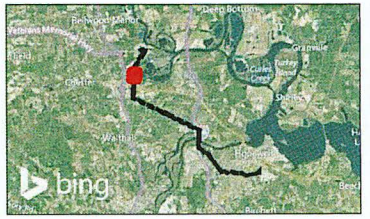

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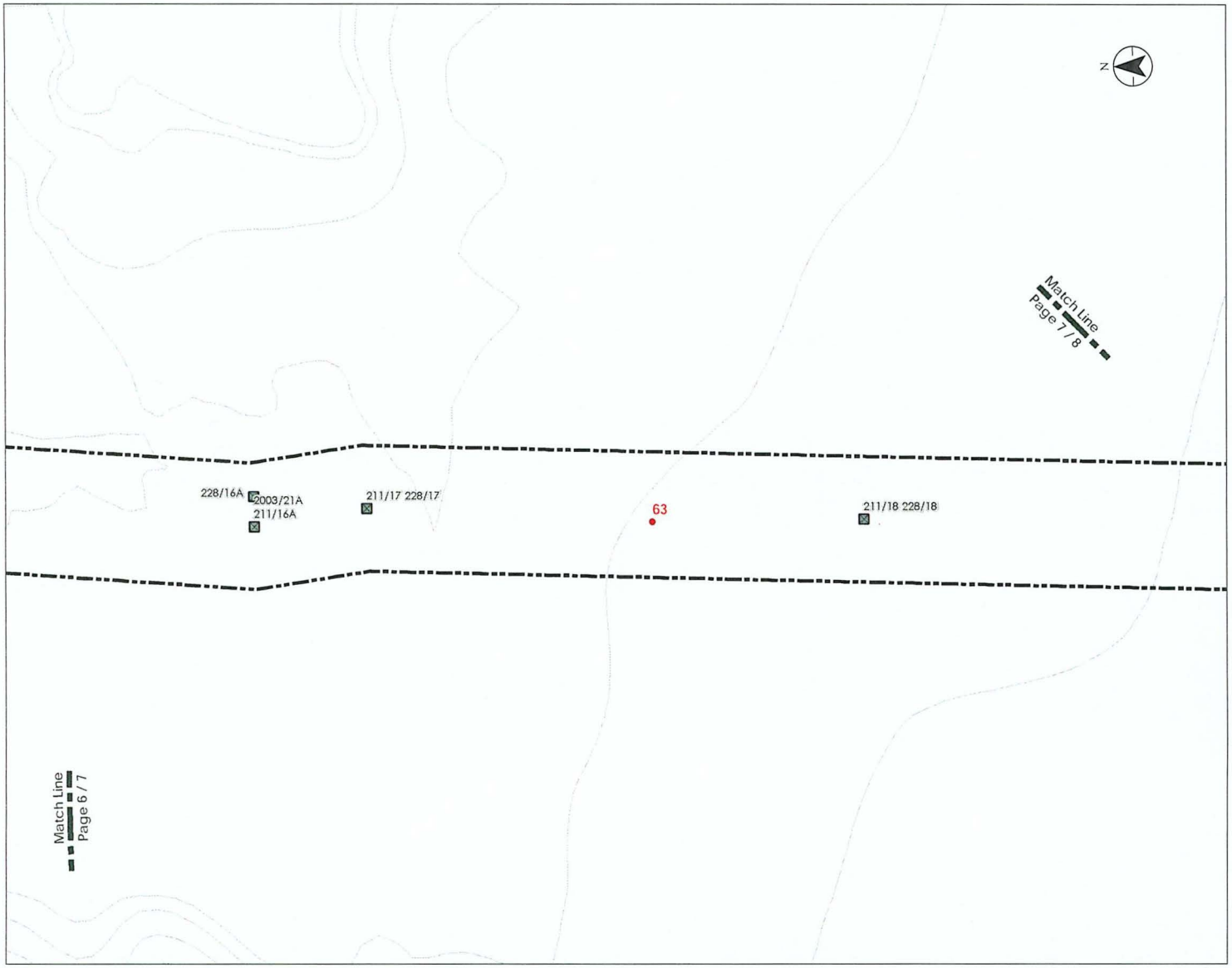

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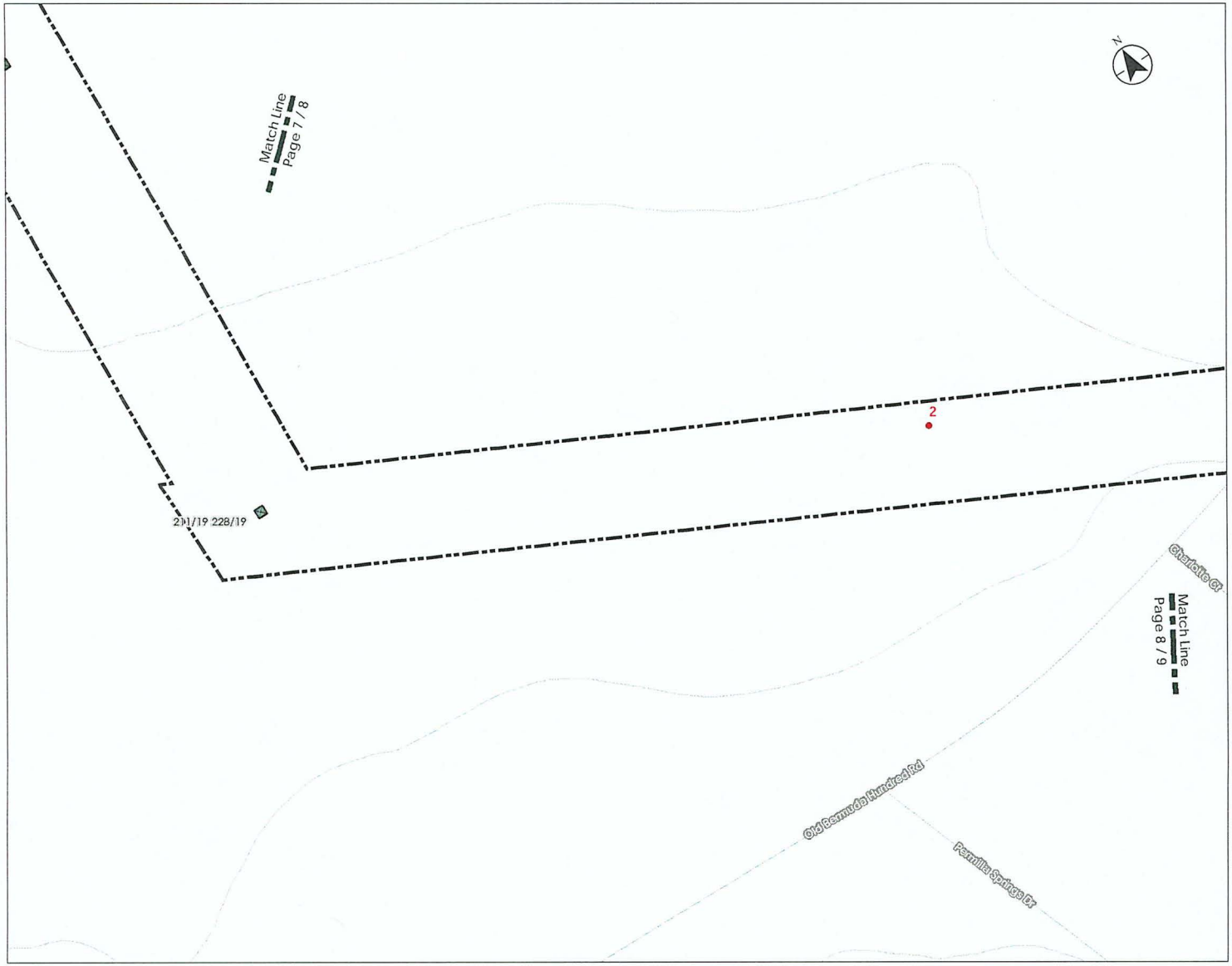

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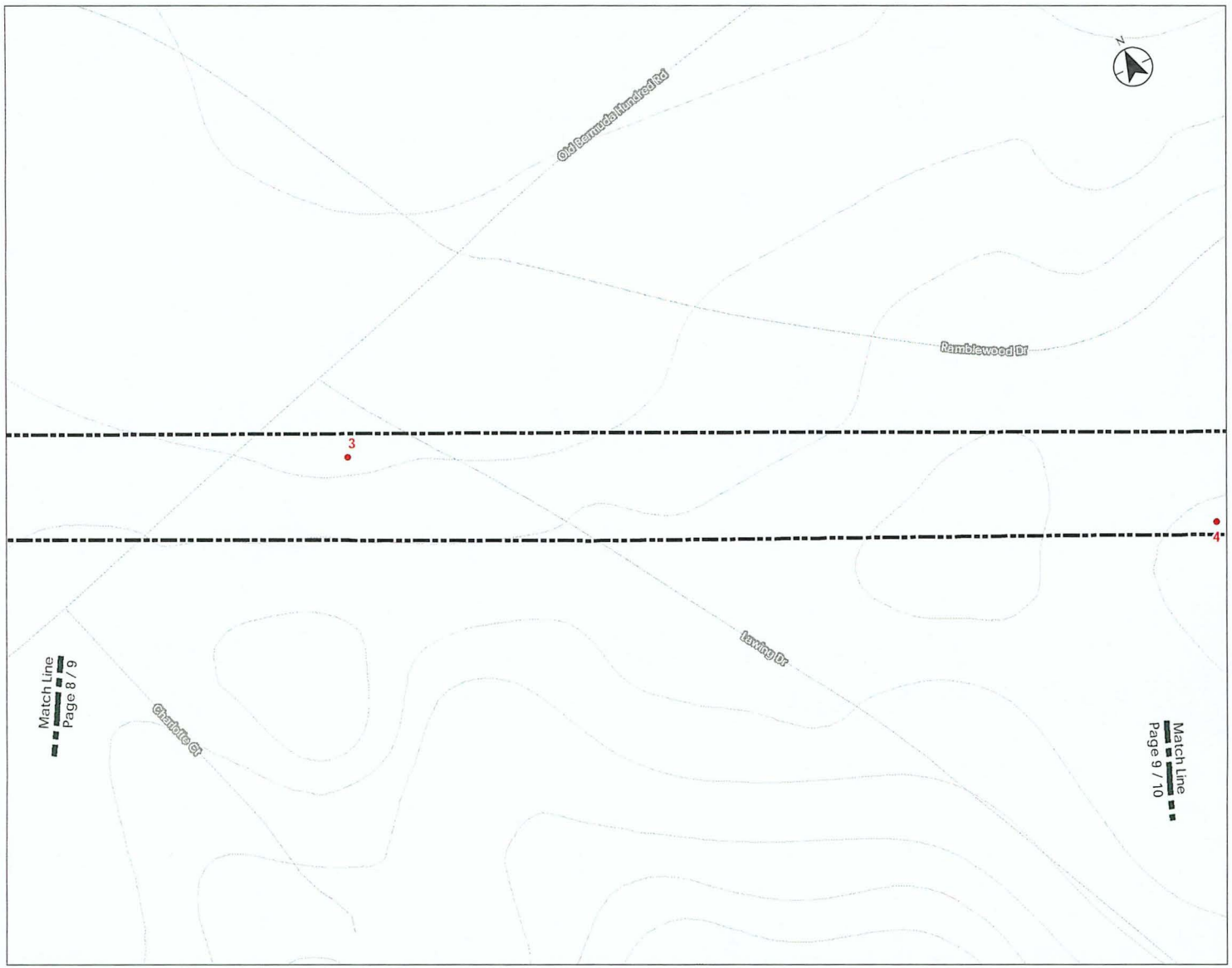

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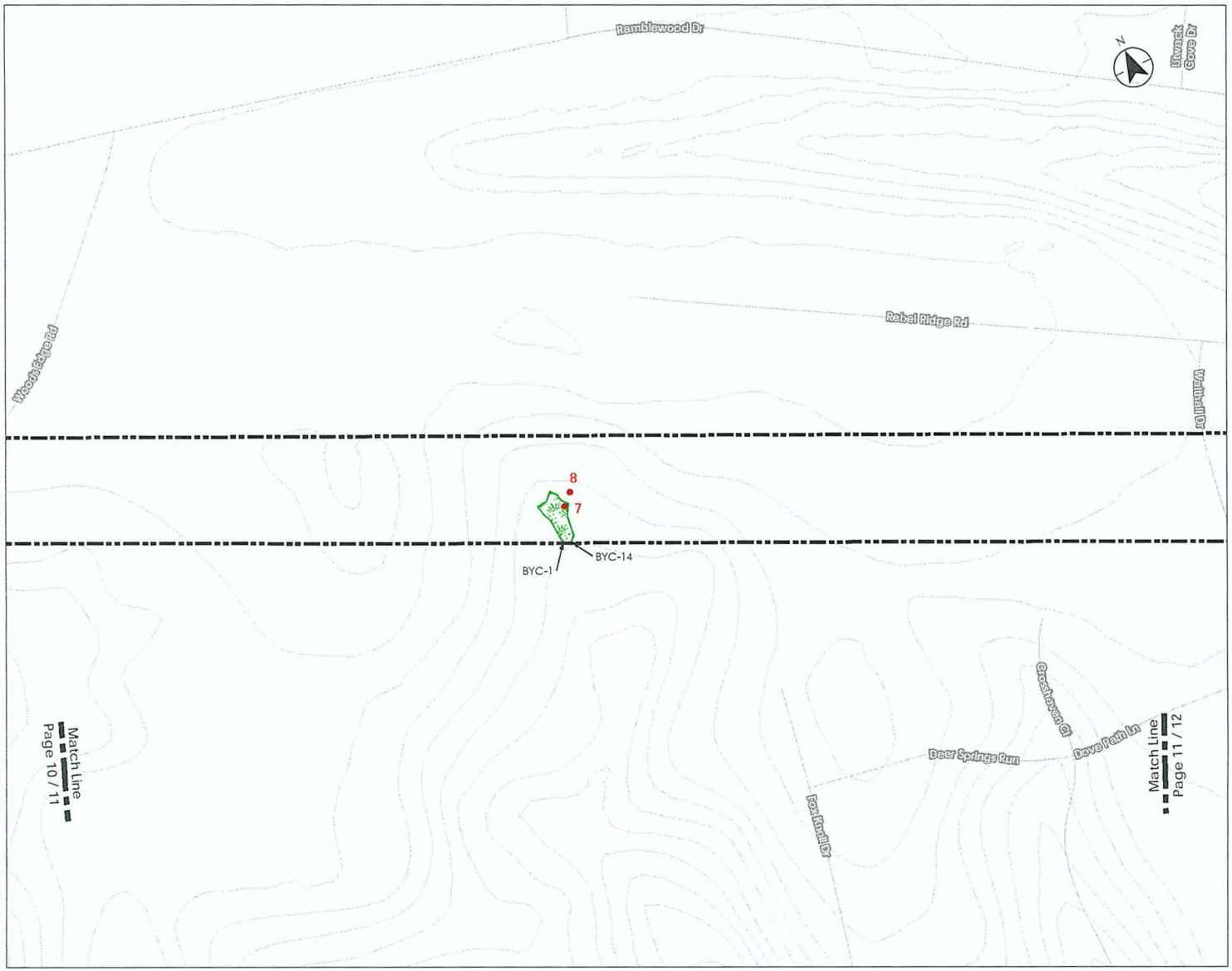

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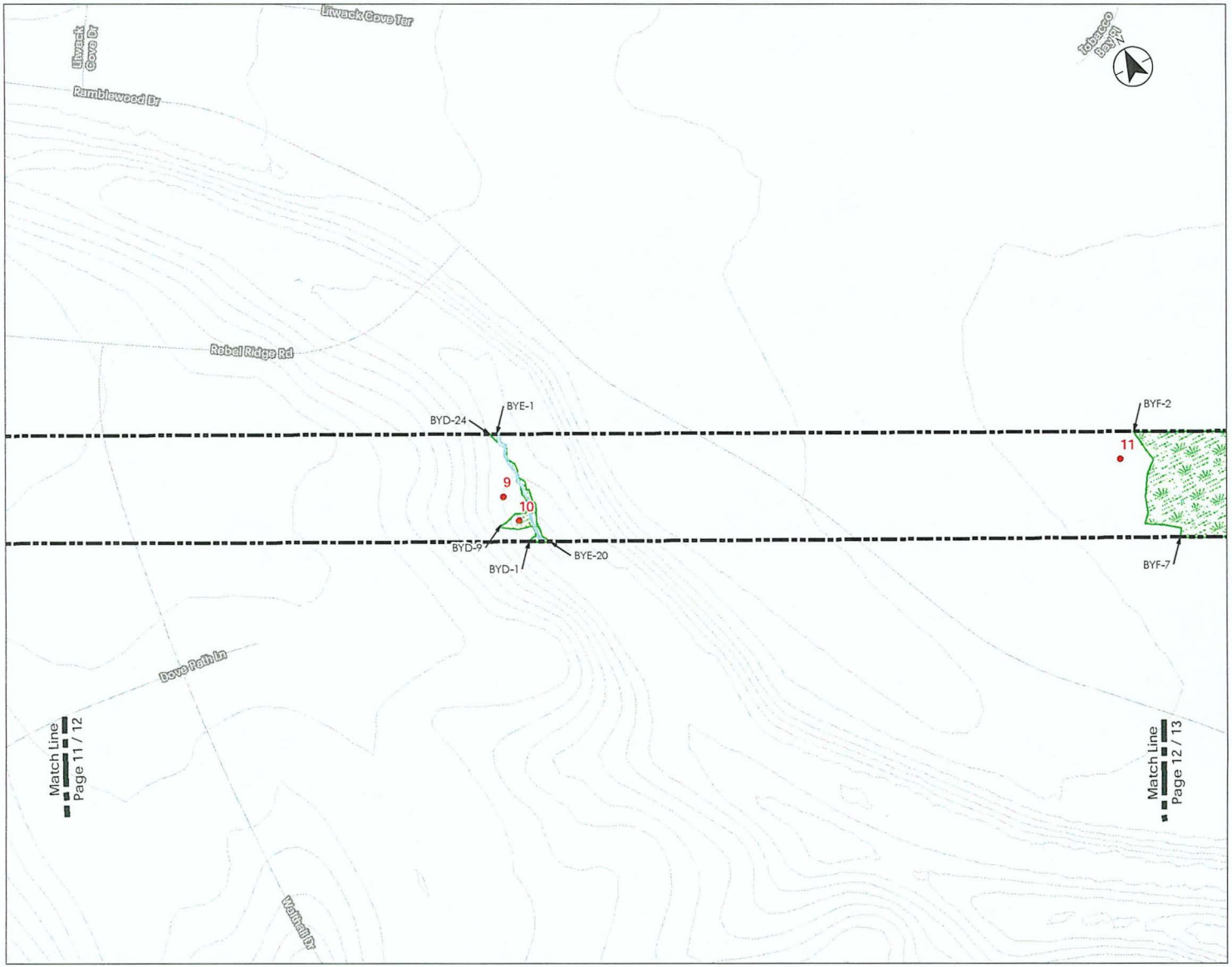

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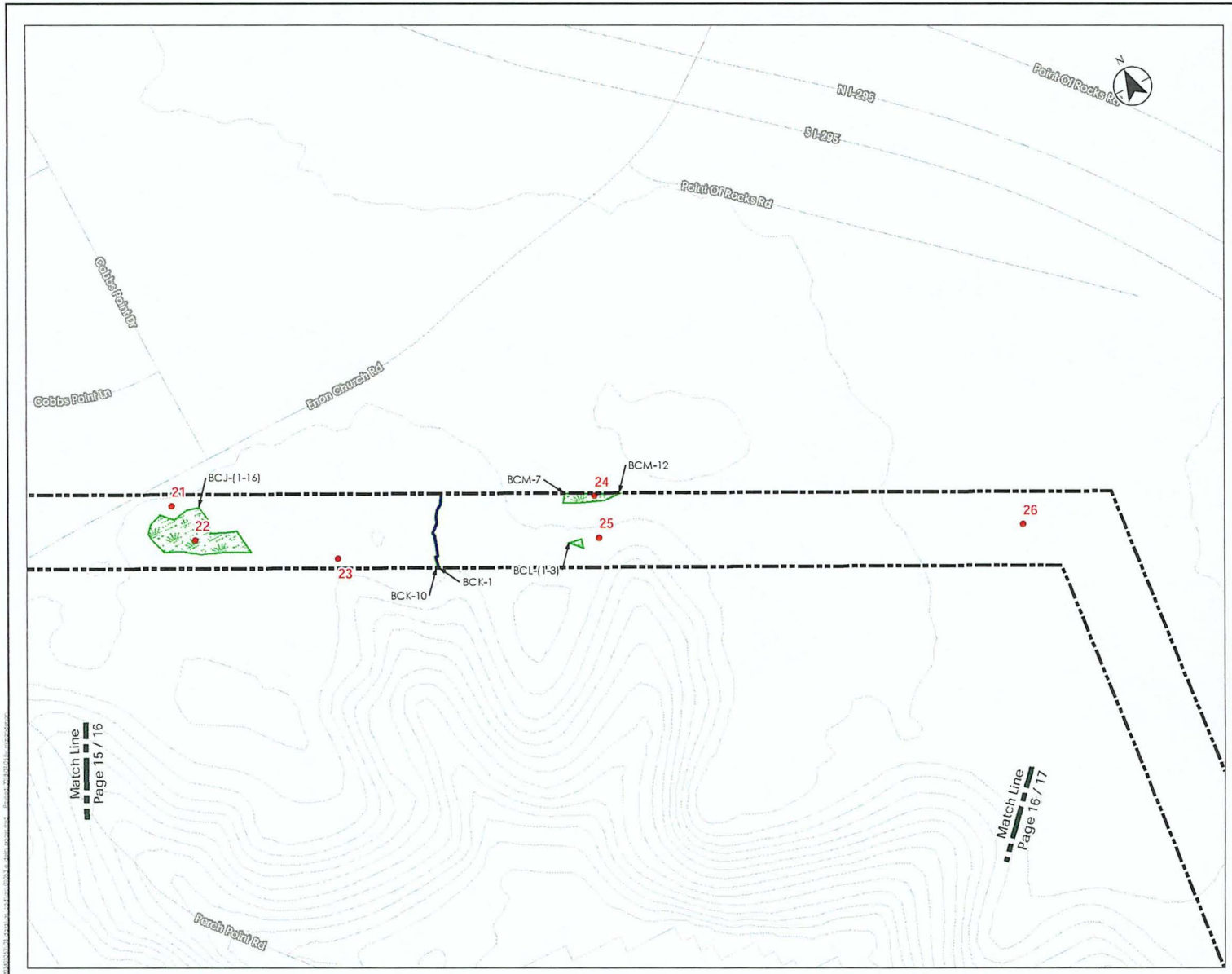

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Figure No.
5

Title
Delineation Map

Map Date: 2018-03-20
Revised: 2018-04-24
Revised: 2018-09-05

Client/Project
Dominion Energy Virginia
Chesterfield - Hopewell 230 kV Rebuild

Project Location
Chesterfield County, Prince George County, and City of Hopewell, Virginia

203401053
Prepared by YOP on 2018-08-14
Technical Review by TPS on 2018-08-14
Independent Review by CSK on 2018-08-14

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

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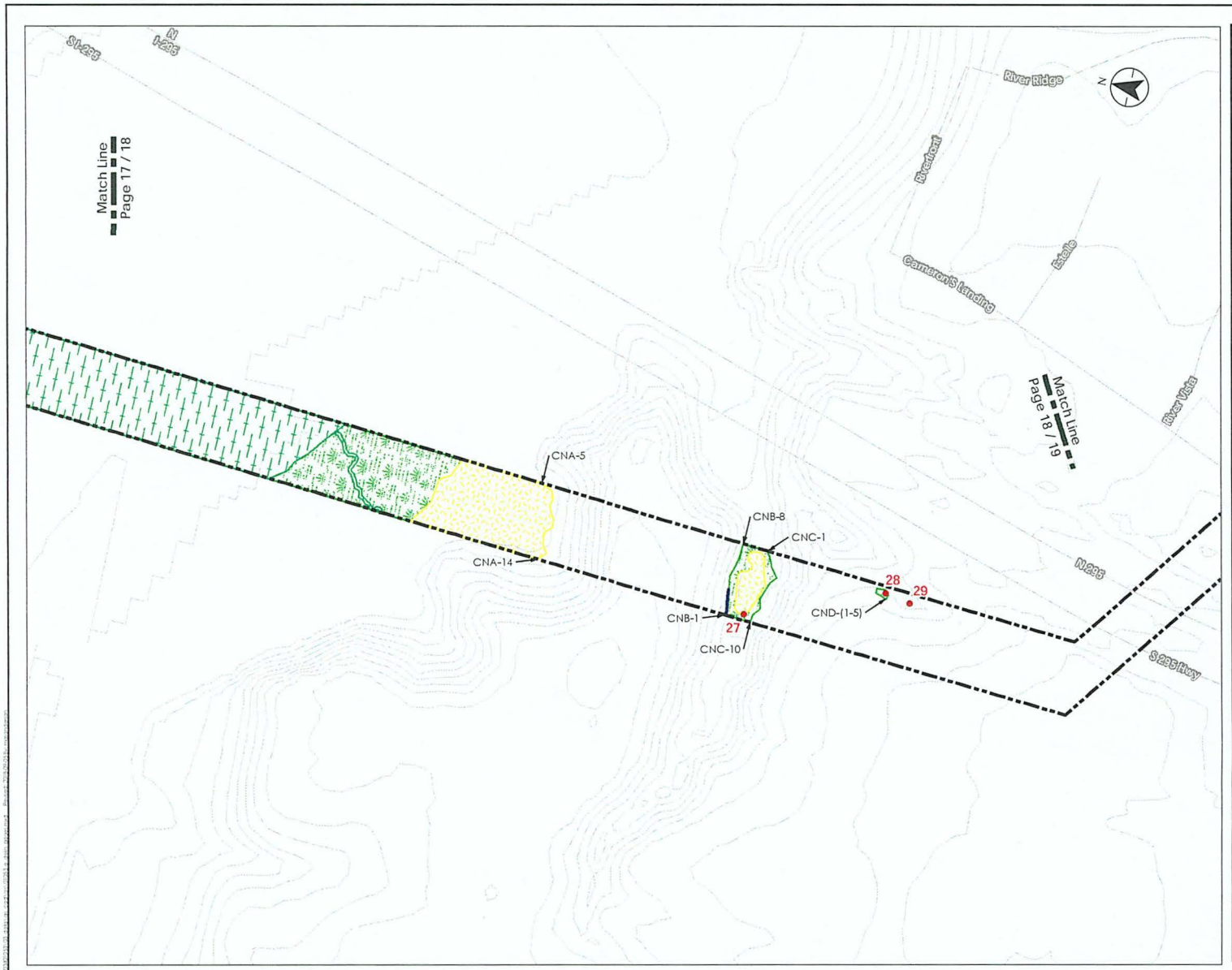

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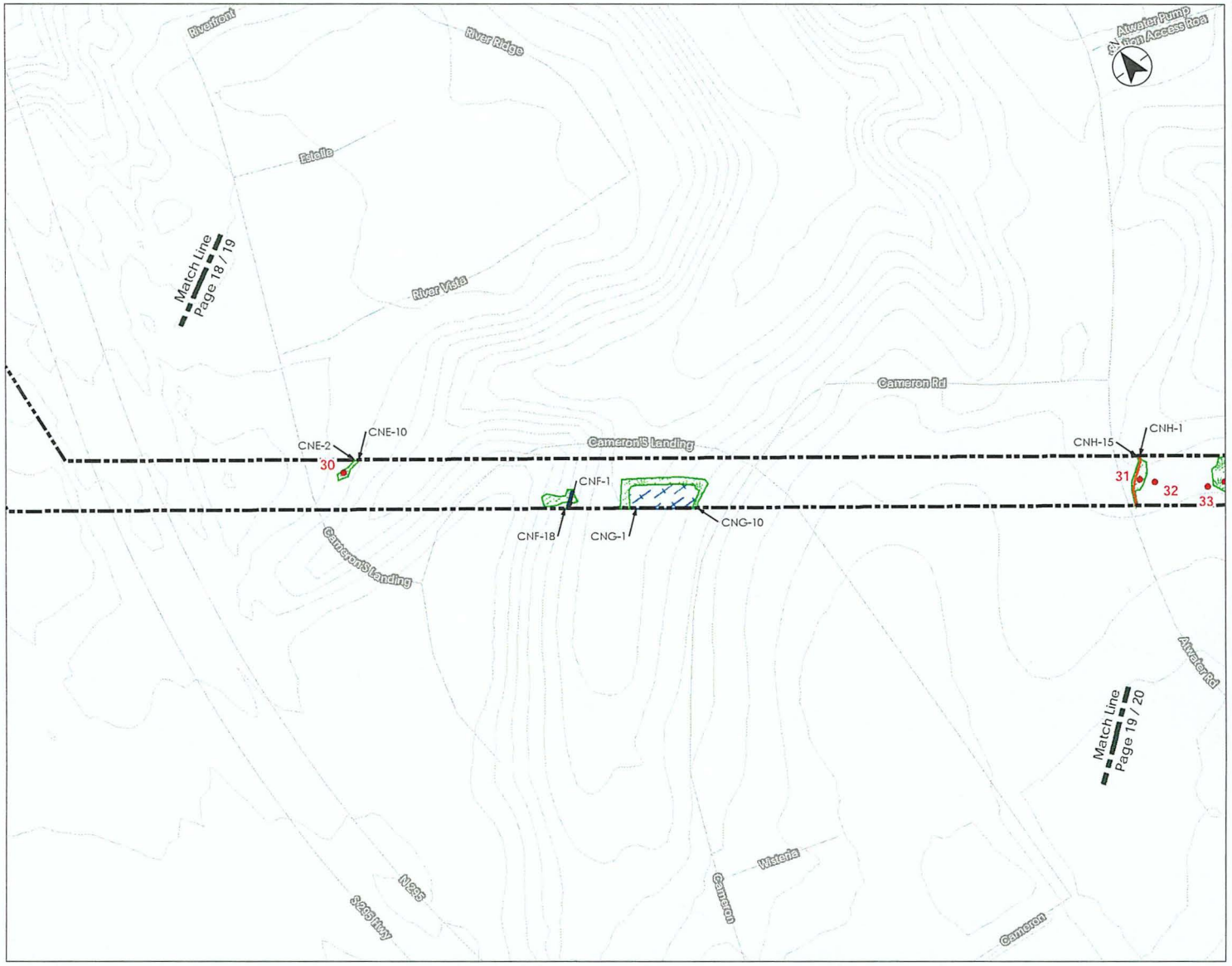

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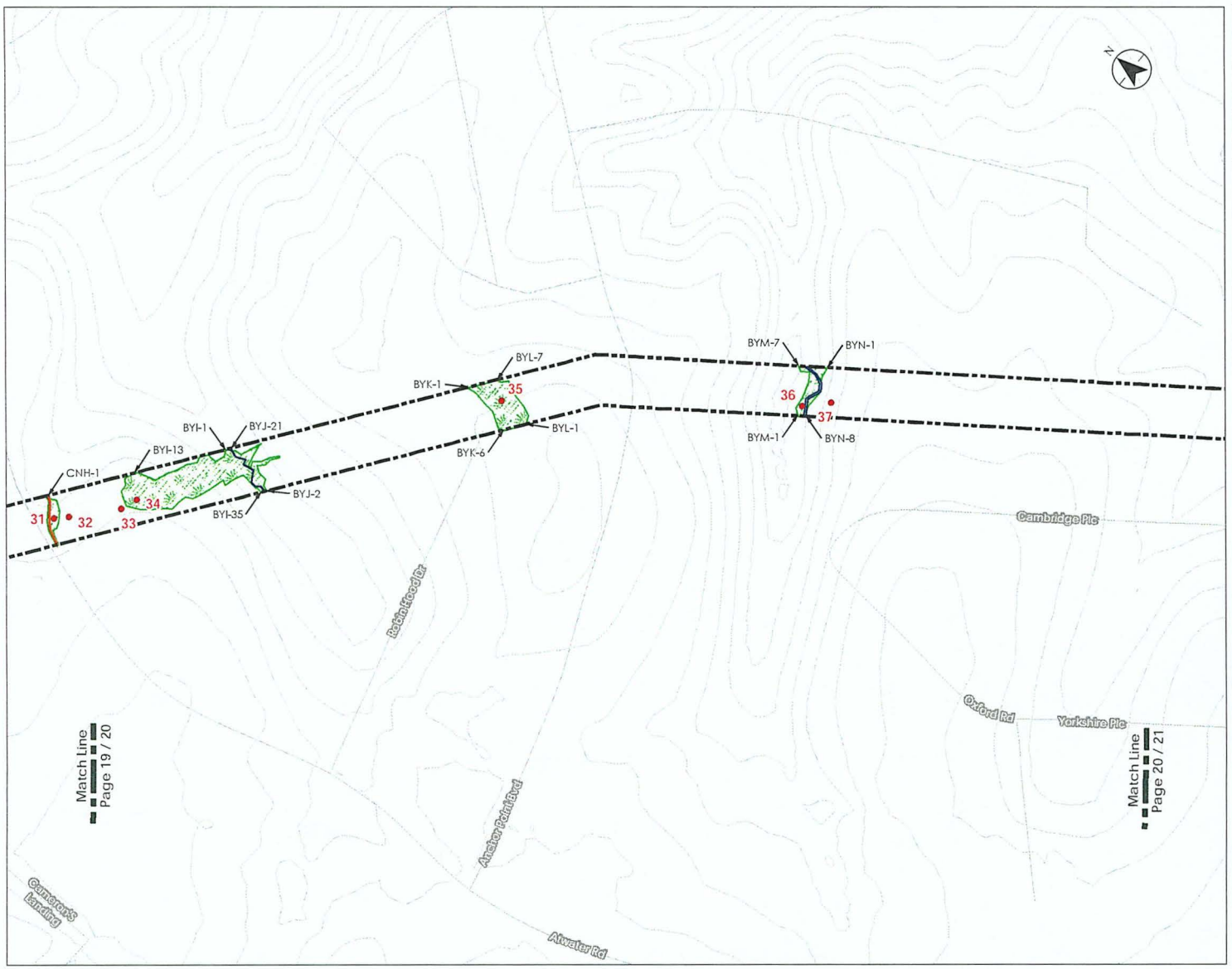

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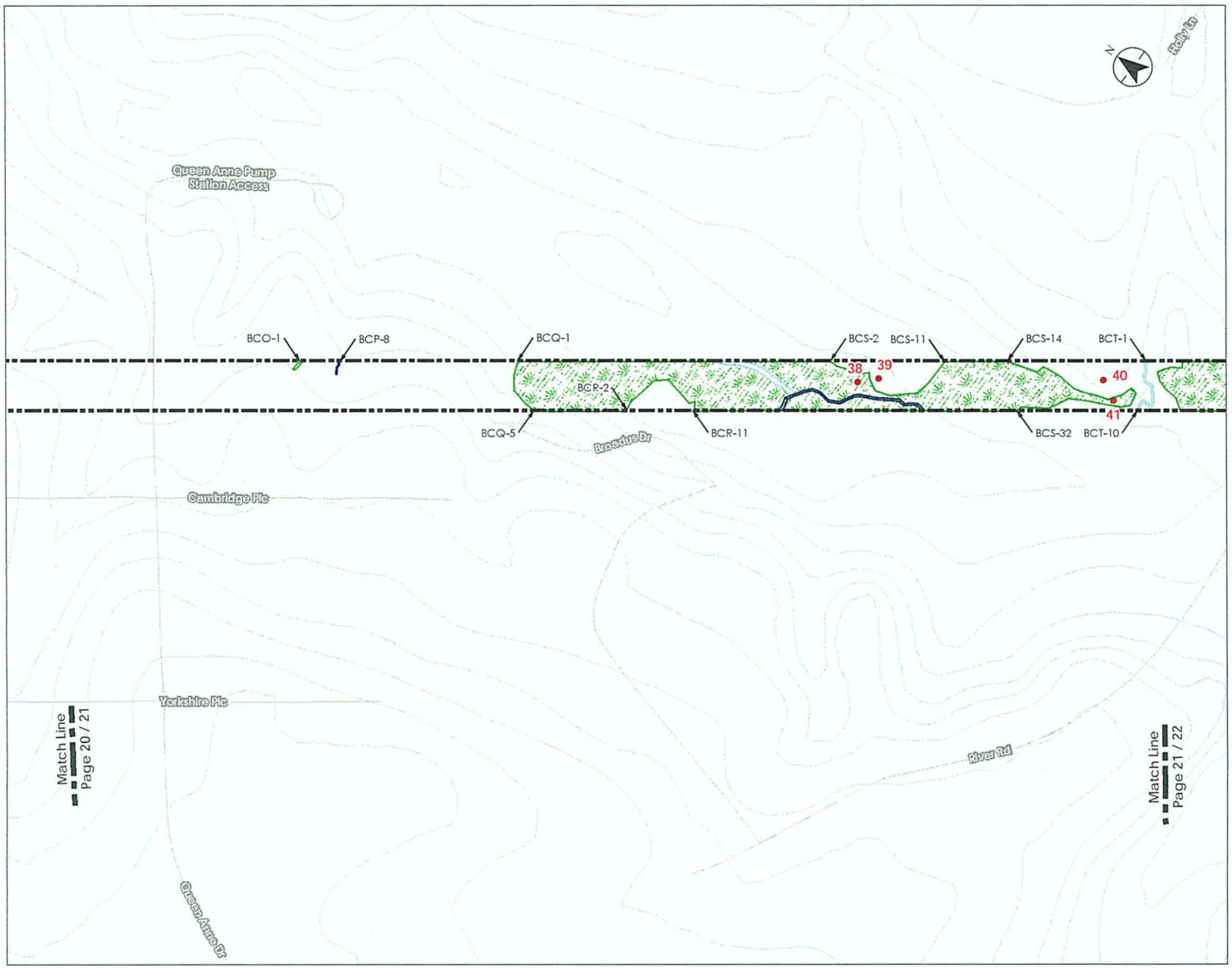

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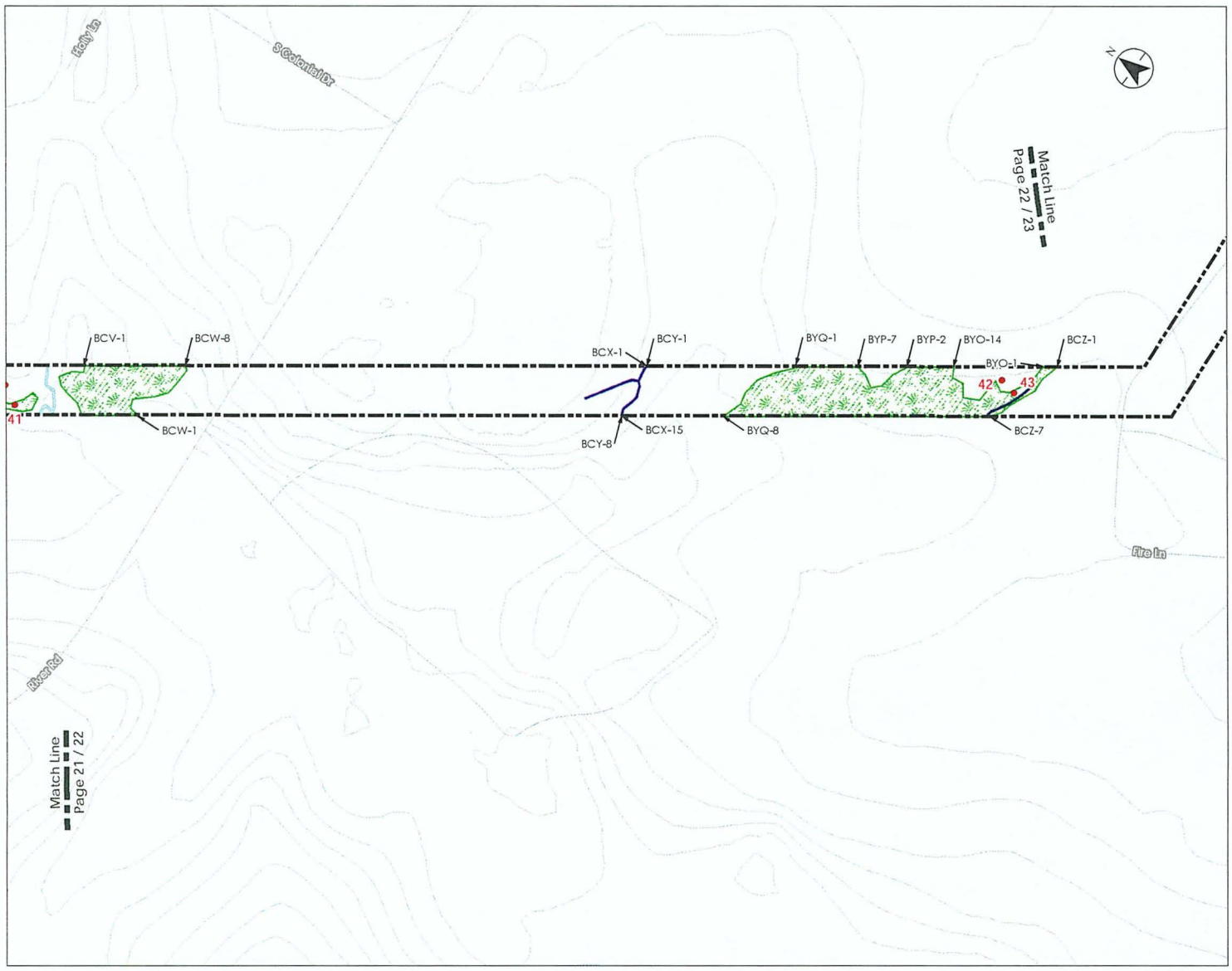

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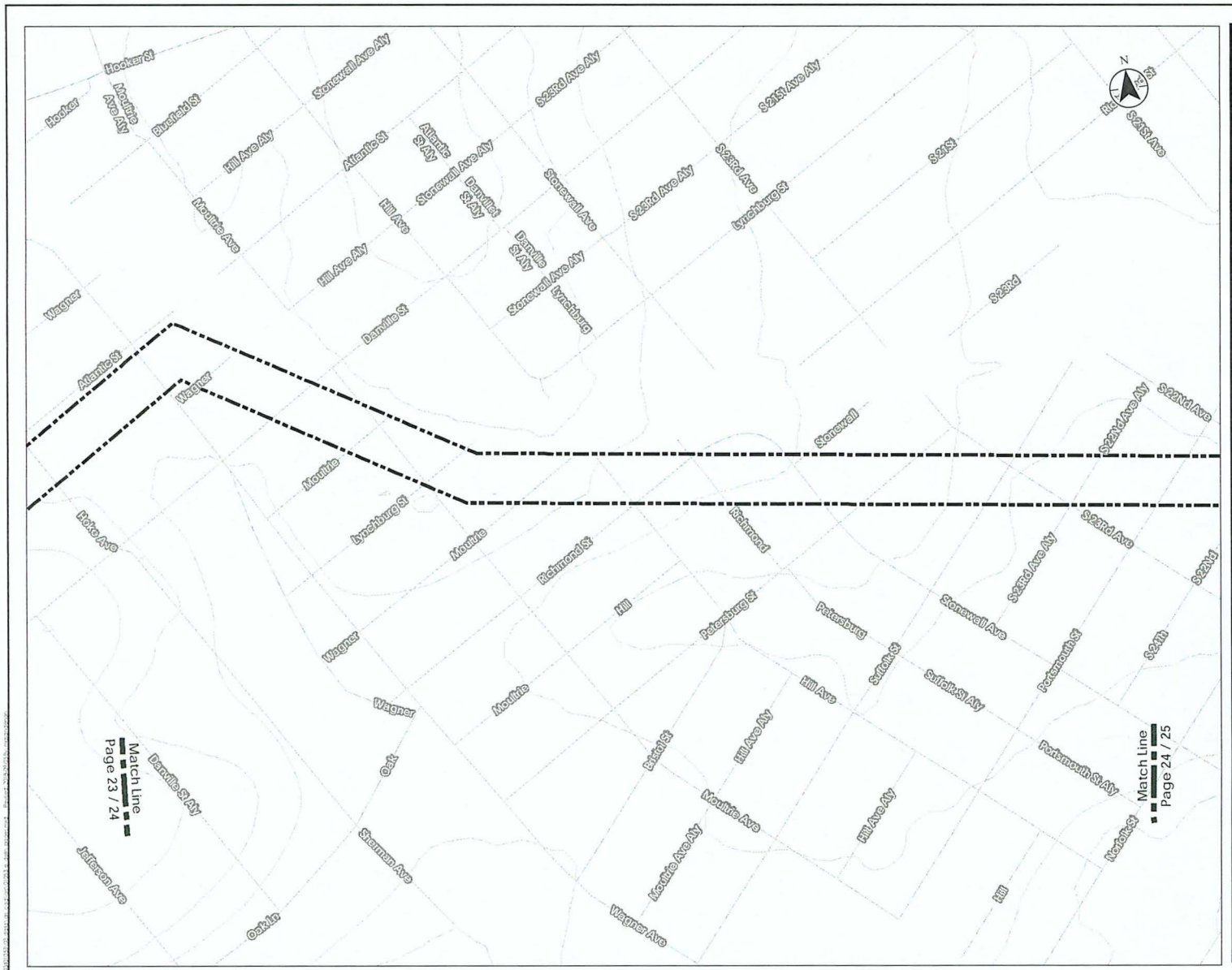

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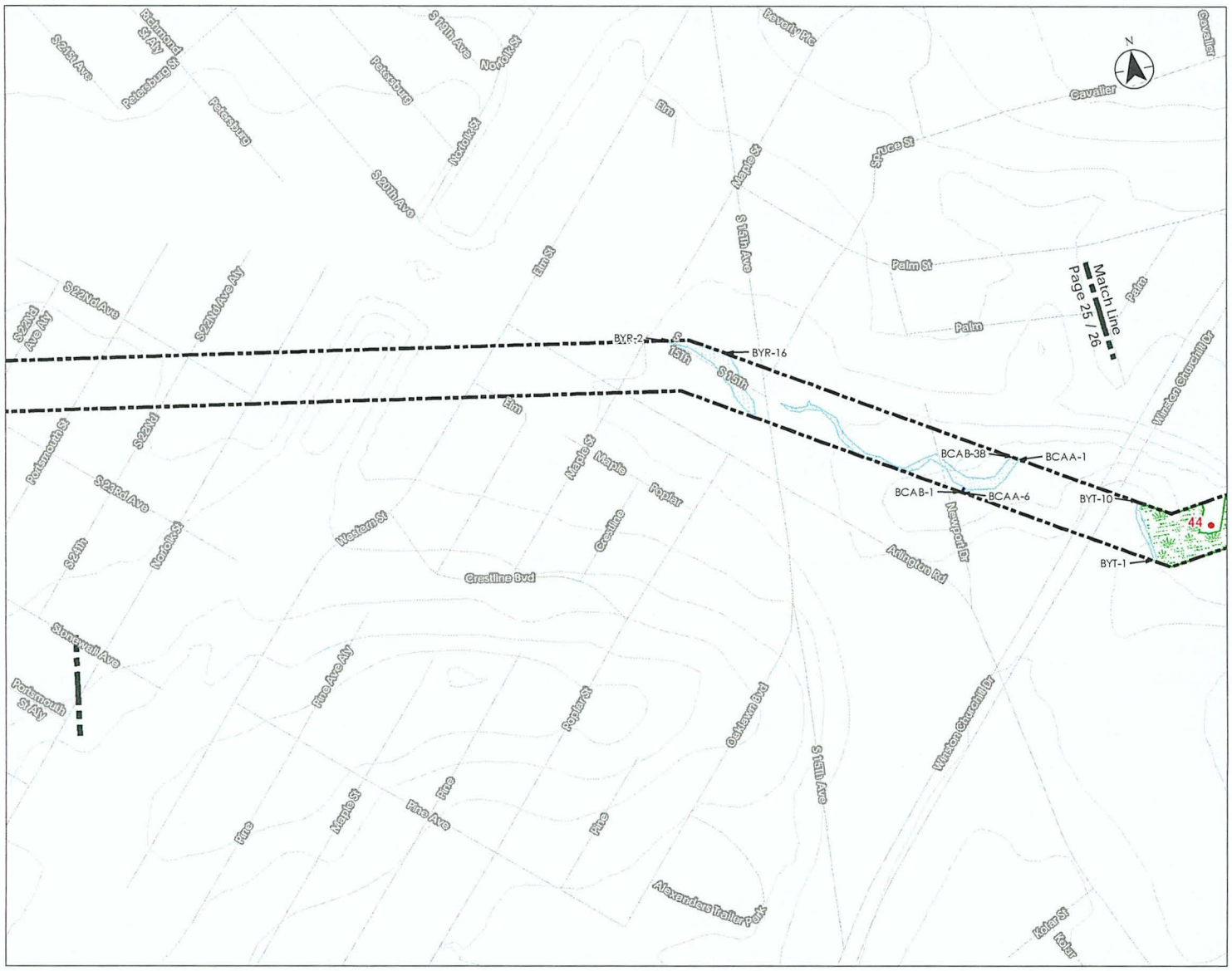

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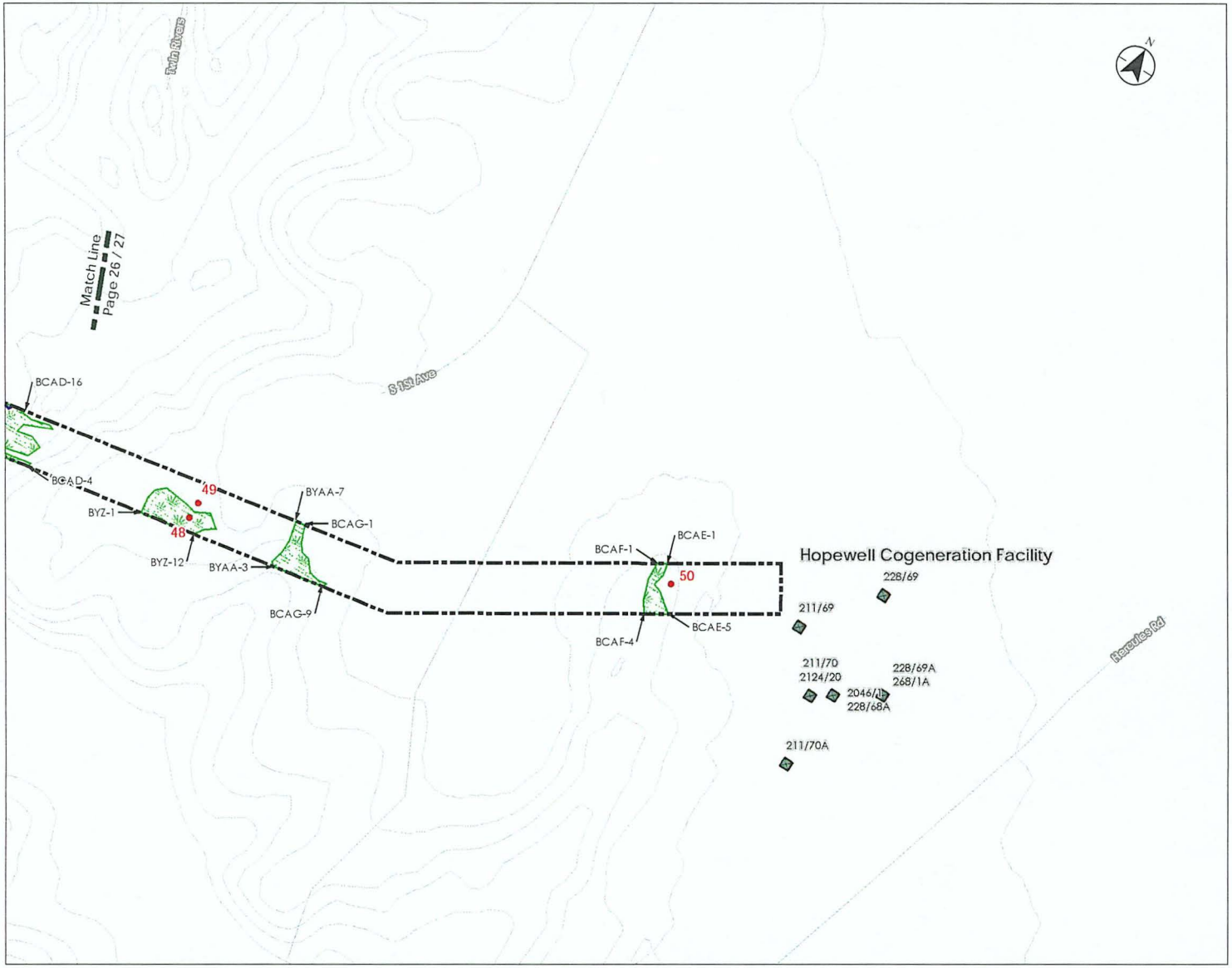

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APPENDIX A
PRE-APPLICATION AND JURISDICTIONAL DETERMINATION REQUEST FORM

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: **September 2018**

2. Project Name: **Chesterfield–Hopewell 230 kV Rebuild**

3. City or County where property located: **Chesterfield County, Prince George County, and The City of Hopewell**

4. Address of property and directions (attach a map of the property location and a copy of the property plat): **The project area originates north of Coxendale Road and east of Old Stage Road and primarily runs south and southeast, crossing, but not limited to, West Hundred Road, Ware Bottom Spring Road, Ramblewood Drive, Bermuda Orchard Lane, Enon Church Road (Route 746), the Appomattox River, Interstate 295, River Road (Route 645), and Winston Churchill Drive. The study area terminates at the Hopewell Cogeneration Facility, located north of Borrow Pit Road, east of South 1st Avenue, south of Winston Churchill Drive, and west of Hercules Road. The project area can be accessed via Chesterfield Power Station, Coyote Drive, Batter Dantzler Court, West Hundred Road, Old Bermuda Hundred Road, Loretto Way, the Appomattox River Regional Park, River Road, and South 1st Avenue. Location and vicinity maps are included in the submittal page.**

5. Coordinates of property (if known): **Start:** **Latitude: 37.379681° Longitude: -77. 387324°**
Terminus: **Latitude: 37.290017° Longitude: -77.283916°**

6. Size of property in acres: **231.01**

7. Tax Parcel Number / GPIN (if available):

8. Name of Nearest Waterway: **Appomattox River and Cattail Creek**

9. Brief Description of Proposed Activity, Reason for Preapplication Request, and/or Reason for Jurisdictional Waters Determination Request: **Environmental constraints analysis.**

10. 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:
Mailing Address:
City: State: Zip:
Daytime Telephone:
E-mail Address:

If the person requesting the Jurisdictional Determination is **NOT** the Property Owner, please also supply the Requestor's contact information here:

Requestor Name:	**Mr. John Mulligan**
Company:	**Virginia Electric and Power Company**
Mailing Address:	**701 East Cary Street, 12th Floor**
City: State: Zip:	**Richmond, Virginia 23219**
Daytime Telephone:	**804-771-6937**
E-mail Address:	**John.A.Mulligan@dom.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:

John H. Mulligan
Requestor's Signature

3/19/18
Date

APPENDIX B
WETLAND DETERMINATION DATA FORMS

Wetland Determination Data Form - Atlantic and Gulf Coastal Plain Region **Sampling Point Number: 1**

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Project:	CHESTERFIELD - HOPEWELL 230KV REBUILD		
Applicant:	DOMINION ENERGY VIRGINIA	Section/Township/Range:	N/A
City/County:	CHESTERFIELD AND PRINCE GEORGE COUNTIES; CITY OF HOPEWELL	Subregion (LRR or MLRA):	LRR P
State:	VIRGINIA	Start:	37.344021° -77.392836°
Investigator(s):	B. YOUNG, C. NICE	Terminus:	37.290017° -77.283916°
Date:	1/12/2018	Soil Map Unit Name:	MADE LAND

Summary of Findings: **NON-JURISDICTIONAL DITCH WEST OF TOWERS 211/3 AND 228/3.**

Hydrophytic Vegetation is Present:	Normal Circumstances: X	NWI Classification:	N/A
Hydric Soils are Present:	Disturbed Parameters (see Remarks):	Local Relief:	CONCAVE
Wetland Hydrology is Present:	Problematic Parameters (see Remarks):	Landform:	DRAINAGEWAY
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks):	Slope %:	0-2

Hydrology Parameter:

Primary Indicators:		*Secondary Indicators:*
___ Surface Water (A1)	___ Water Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Sparsely Vegetated Concave Surface (B8)
___ Saturation (A3)	___ Marl Deposits (B15)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Moss Trim Lines (B16)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Dry-Season Water Table (C2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C9)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Stunted or Stressed Plants (D1)
___ Inundation Visible on Aerial Imagery (B7)	___ Other	X Geomorphic Position (D2)
		___ Shallow Aquitard (D3)
		___ FAC-Neutral Test (D5)
		___ Sphagnum Moss (D8)

Water Depths (inches):
Surface Water: ____
Water Table: ____
Saturated soil: >20

Remarks: **HYDROLOGY PARAMETER NOT MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%
Pyrus calleryana	Shrub	UPL	10
Juniperus virginiana	Shrub	FACU	10
Solidago altissima	Herbaceous	FACU	20
Rubus argutus	Herbaceous	FAC	15
Schedonorus arundinaceus	Herbaceous	FAC	10
Andropogon virginicus	Herbaceous	FAC	10
Sorghum halepense	Herbaceous	FACU	10
Lonicera japonica	Vine	FACU	10

Non-Dominant Species	Stratum	IND	%
Pinus taeda	Shrub	FAC	3
Allium vineale	Herbaceous	FACU	5
Cynodon dactylon	Herbaceous	FACU	5
Juncus effusus	Herbaceous	OBL	3

% Dominant species FAC or wetter: 38%
NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST

Prevalence Index: 3.7
Calculated using all species present.

Rapid Test for Hydrophytic Vegetation: ____
Dominance Test >50%: ____
Prevalence Index is ≤ 3.0: ____
Problematic Hydrophytic Vegetation: ____

Remarks: **VEGETATION PARAMETER NOT MET.**

Soil Parameter:

	Matrix		Redox Features				
Depth (inches)	**Color (Moist)**	**%**	**Color (Moist)**	**%**	**Type**	**Loc**	**Texture**
0-8	10YR 5/2	100					CLAY LOAM
8-20	10YR 6/4	100					CLAY LOAM

Hydric Soil Indicators:

			Indicators for Problematic Hydric Soils
___ Histosol (A1)	___ Coast Prairie Redox (A16)	___ Redox Dark Surface (F6)	
___ Histic Epipedon (A2)	___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Black Histic (A3)	___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	___ 1cm Muck (A9)
___ Hydrogen Sulfide (A4)	___ Sandy Redox (S5)	___ Marl (F10)	___ 2cm Muck (A10)
___ Stratified Layers (A5)	___ Stripped Matrix (S6)	___ Depleted Ochric (F11)	___ Reduced Vertic (F18)
___ Organic Bodies (A6)	___ Dark Surface (S7)	___ Iron-Manganese Masses (F12)	___ Piedmont Floodplain Soils (F19)
___ 5cm Mucky Mineral (A7)	___ Polyvalue Below Surface (S8)	___ Umbric Surface (F13)	___ Anomalous Bright Loamy Soils (F20)
___ Muck Presence (A8)	___ Thin Dark Surface (S9)	___ Delta Ochric (F17)	___ Red Parent Material (TF2)
___ 1 cm Muck (A9)	___ Loamy Mucky Mineral (F1)	___ Reduced Vertic (F18)	___ Very Shallow Dark Surface (TF12)
___ Depleted Below Dark Surface (A	___ Loamy Gleyed Matrix (F2)	___ Piedmont Floodplain Soils (F19)	___ Other
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Anomalous Bright Loamy Soils (F20)	

Restrictive Layer (If Observed)
Type: ____
Depth (inches): ____

Remarks: **SOIL PARAMETER NOT MET.**

Wetland Determination Data Form - Atlantic and Gulf Coastal Plain Region **Sampling Point Number: 2**

Stantec

Project:	CHESTERFIELD - HOPEWELL 230KV REBUILD		
Applicant:	DOMINION ENERGY VIRGINIA	Section/Township/Range:	N/A
City/County:	CHESTERFIELD AND PRINCE GEORGE COUNTIES; CITY OF HOPEWELL	Subregion (LRR or MLRA):	LRR P
State:	VIRGINIA	Start:	37.344021° -77.392836°
Investigator(s):	B. YOUNG, C. NICE	Terminus:	37.290017° -77.283916°
Date:	12/19/2017	Soil Map Unit Name:	LUCY-ORANGEBURG LOAMY SANDS

Summary of Findings: **UPLAND BETWEEN TOWERS 211/20 AND 211/21.**

Hydrophytic Vegetation is Present:	X	Normal Circumstances:	X	NWI Classification:	N/A
Hydric Soils are Present:		Disturbed Parameters (see Remarks):		Local Relief:	CONVEX
Wetland Hydrology is Present:		Problematic Parameters (see Remarks):		Landform:	SLOPE
Sampled Area is within a Wetland:		Atypical Climate/Hydrology (see Remarks):		Slope %:	0-2

Hydrology Parameter:

Primary Indicators:		*Secondary Indicators:*
___ Surface Water (A1)	___ Water Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Sparsely Vegetated Concave Surface (B8)
___ Saturation (A3)	___ Marl Deposits (B15)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Moss Trim Lines (B16)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Dry-Season Water Table (C2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C9)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Stunted or Stressed Plants (D1)
___ Inundation Visible on Aerial Imagery (B7)	___ Other	___ Geomorphic Position (D2)
		___ Shallow Aquitard (D3)
		___ FAC-Neutral Test (D5)
		___ Sphagnum Moss (D8)

Water Depths (inches):
Surface Water: _____
Water Table: _____
Saturated soil: 17

Remarks: **HYDROLOGY PARAMETER NOT MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%
Acer rubrum	Shrub	FAC	10
Liquidambar styraciflua	Shrub	FAC	5
Pinus taeda	Shrub	FAC	5
Saccharum giganteum	Herbaceous	FACW	15
Eupatorium capillifolium	Herbaceous	FACU	10
Solidago altissima	Herbaceous	FACU	10
Lonicera japonica	Vine	FACU	20
Smilax bona-nox	Vine	FAC	10

Non-Dominant Species	Stratum	IND	%
Ilex opaca	Shrub	FAC	3
Dichanthelium scabriusculum	Herbaceous	OBL	5
Rubus argutus	Herbaceous	FAC	5
Asplenium platyneuron	Herbaceous	FACU	5
Achillea millefolium	Herbaceous	FACU	3
Smilax rotundifolia	Vine	FAC	5

% Dominant species FAC or wetter: 63%
NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST

Prevalence Index: 3.2
Calculated using all species present.

Rapid Test for Hydrophytic Vegetation: _____
Dominance Test >50%: X
Prevalence Index is ≤ 3.0: _____
Problematic Hydrophytic Vegetation: _____

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

	Matrix		Redox Features				
Depth (inches)	**Color (Moist)**	**%**	**Color (Moist)**	**%**	**Type**	**Loc**	**Texture**
0-6	10YR 4/1	100					FINE SANDY LOAM
6-20	2.5Y 5/6	95	10YR 5/6	5	INCLUSION	M	SANDY CLAY LOAM

Hydric Soil Indicators:

___ Histosol (A1)	___ Coast Prairie Redox (A16)	___ Redox Dark Surface (F6)	*Indicators for Problematic Hydric Soils*
___ Histic Epipedon (A2)	___ Sandy Mucky Mineral (S1)	___ Depleted Dark Surface (F7)	
___ Black Histic (A3)	___ Sandy Gleyed Matrix (S4)	___ Redox Depressions (F8)	___ 1cm Muck (A9)
___ Hydrogen Sulfide (A4)	___ Sandy Redox (S5)	___ Marl (F10)	___ 2cm Muck (A10)
___ Stratified Layers (A5)	___ Stripped Matrix (S6)	___ Depleted Ochric (F11)	___ Reduced Vertic (F18)
___ Organic Bodies (A6)	___ Dark Surface (S7)	___ Iron-Manganese Masses (F12)	___ Piedmont Floodplain Soils (F19)
___ 5cm Mucky Mineral (A7)	___ Polyvalue Below Surface (S8)	___ Umbric Surface (F13)	___ Anomalous Bright Loamy Soils (F20)
___ Muck Presence (A8)	___ Thin Dark Surface (S9)	___ Delta Ochric (F17)	___ Red Parent Material (TF2)
___ 1 cm Muck (A9)	___ Loamy Mucky Mineral (F1)	___ Reduced Vertic (F18)	___ Very Shallow Dark Surface (TF12)
___ Depleted Below Dark Surface (A	___ Loamy Gleyed Matrix (F2)	___ Piedmont Floodplain Soils (F19)	___ Other
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Anomalous Bright Loamy Soils (F20)	

Restrictive Layer (If Observed)
Type: _____
Depth (inches): _____

Remarks: **SOIL PARAMETER NOT MET.**