



Dominion Energy®

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

Before the State Corporation
Commission of Virginia

Aquia Harbour – Possum Point
Lines #29, #252, #2083, and
#568 Rebuild

Application No. 339

Case No. PUR-2024-00142

Filed: August 14, 2024

Volume 2 of 2

BEFORE THE
STATE CORPORATION COMMISSION
OF VIRGINIA

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

Aquia Harbor – Possum Point

Lines #29, #252, #2083, and #568 Rebuild

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DEQ Supplement

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Based upon consultations with the Virginia Department of Environmental Quality (“DEQ”), Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) has developed this DEQ Supplement to facilitate review and analysis of the proposed Aquia Harbor–Possum Point Lines #29, #252, #2083, and #568 Rebuild Project (“Rebuild Project”) by DEQ and other relevant agencies.

1. Rebuild Project Description

In order to: (a) maintain the structural integrity and reliability of the networked transmission system; (b) resolve identified violations of the mandatory North American Electric Reliability Corporation (“NERC”) Reliability Standards; and (c) provide for future load growth in the Woodbridge Load Area, Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) proposes, in Stafford County, Prince William County, and the City of Fredericksburg, to rebuild its existing transmission corridor between Fredericksburg Substation and Possum Point Switching Station¹ by:

- (i) Rebuilding, primarily within existing right-of-way or on Company-owned property, approximately 11.4 miles of the existing Fredericksburg-Possum Point 115 kilovolt (“kV”) Line #29² on double circuit monopole structures utilizing current 230 kV standards, from the Company’s existing Aquia Harbour Switching Station³ (“Aquia Harbour Station”) to Structure #29/1850, and then 0.5 mile from Structure #29/1850 to the Company’s existing Possum Point Station 230 kV switchyard.
- (ii) Removing approximately 0.6 mile of 115 kV Line #29 from Structure #29/1850 to the Possum Point Station 115 kV switchyard.
- (iii) Rebuilding a 0.2 mile segment of Line #29, between Structure #29/1835 and the Company’s existing Fuller Road Substation, using an additional 50 feet of right-of-way.
- (iv) Rebuilding, primarily within existing right-of-way or on Company-owned property, approximately 11.4 miles of the existing Aquia Harbour-Possum Point 230 kV Line #252, on double circuit monopole structures utilizing current 230 kV standards, from Aquia Harbour Station to Structure #252/5583, and then 0.5 mile from Structure #252/5583 to the Company’s Possum Point Station 230 kV switchyard.
- (v) Rebuilding a 0.2 mile segment of Line #252 between Structure #252/5568 and Fuller Road Substation using an additional 50 feet of

¹ The Possum Point Switching Station is located on the Company’s Possum Point Power Station parcel and contains the 115 kV and 230 kV switchyards (the “Possum Point Switching Station” or “Possum Point Station”).

² The segments of Line #29 that will be rebuilt as part of the Rebuild Project will be renamed to Line #2309.

³ This Appendix discusses two different facilities with similar names: the Aquia Harbour Switching Station and the Aquia Substation. Both are discussed in detail in Section I.C.

right-of-way.⁴

- (vi) Relocating and rebuilding, entirely within existing right-of-way or on Company-owned property, approximately 6.8 miles of the existing Ladysmith-Possum Point 500 kV Line #568 on single circuit monopole structures, between Aquia Harbour Station and Possum Point Station.
- (vii) Rebuilding, entirely within existing right-of-way or on Company-owned property, approximately 0.7 mile of 230 kV Fredericksburg-Birchwood Non-Utility Generator (“NUG”) Line #2083 on double circuit monopole structures (with vacant arms) between the Company’s Fredericksburg Substation and Mary Washington Boulevard and Hospital Drive (“Hospital Junction”), located within the City of Fredericksburg.

(collectively, the “Rebuild Project”).⁵

The Rebuild Project is necessary to maintain reliable service for the Company’s customers. Specifically, the Rebuild Project is necessary to: (1) comply with the Company’s mandatory electric transmission planning criteria (the “Planning Criteria”); (2) comply with mandatory NERC Reliability Standards, and (3) to continue to provide reliable service for the significant load growth anticipated load growth anticipated in the area. Nearly the entire Rebuild Project will be

⁴ The Company further proposes to rebuild the existing 0.1 mile segment of Lines #252 and #29 northwest of Fuller Road Substation using additional right-of-way that increases linearly to form a triangular area of additional right-of-way. Starting at Structure #252/5566 (#29/1833), there is no additional right-of-way. As Lines #252 and #29 travel east, the right-of-way will expand to include up to an additional 67 feet of width at the eastern edge of Mars Station Road.

⁵ The Rebuild Project is the second phase of the work the Company plans to undertake as described in its Application filed on March 14, 2024, in Case No. PUR-2024-00035, *Application of Virginia Electric and Power Company for Approval and Certification of Electric Facilities: Fredericksburg-Aquia Harbour Lines #29, #2104, and #2157 Partial Rebuild*.

The Company will also perform work associated with the Rebuild Project at the Fredericksburg, Cranes Corner, Aquia, Ladysmith, and Fuller Road Substations, and Possum Point and Aquia Harbour Stations. This work, while not included as part of the Rebuild Project, is discussed in Section II.C (the Cranes Corner work is discussed immediately below).

Additionally, the Company intends to add one backbone structure outside of the Company’s Cranes Corner Substation in the existing right-of-way to maximize capacity and minimize line crossings in the corridor. Finally, the Company intends to install approximately 0.3 mile of a new 115 kV line starting at the Fuller Road Substation to feed Marine Corps Base Quantico (“MCBQ”) once the entire corridor has been upgraded to 230 kV. The Company’s work associated with the relocation of the backbone structure at Cranes Corner Substation and the new 0.3 mile 115 kV line to feed MCBQ are not components of the Rebuild Project. The Company considers this work to qualify as an “ordinary extension[] or improvement[] in the usual course of business (*i.e.*, “ordinary course”) pursuant to § 56-265.2 A 1 of the Code of Virginia (“Va. Code”) and, therefore, does not require approval pursuant to Va. Code § 56-46.1 B or a CPCN from the Commission. Because this work is not a component of the proposed Rebuild Project, the costs associated with this work are not included in the total Rebuild Project costs.

located on Company-owned property or existing right-of-way except for the right-of-way and substation expansions near the Fuller Road Substation.

2. Environmental Analysis

The Company originally solicited comments from all relevant state and local agencies in July 2024. Copies of the Company's letters are included as Attachment 2. The DEQ provided a Scoping Response Letter dated July 2, 2024 (see Attachment 2.1).

As part of Dominion Energy Virginia's environmental compliance program, the Company has a comprehensive Environmental Management System Manual in place that ensures it is committed to complying with environmental laws and regulations, reducing risk, minimizing adverse environmental impacts, setting environmental goals, and achieving improvements in its environmental performance, consistent with the Company's core values.

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 transmission line corridor. However, minimal earth disturbance will take place and vehicle speed, which is often a factor in airborne pollution, will be kept to a minimum. Erosion and sediment control is addressed in Section 2.H, 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 Rebuild Project is proposing to create new right-of-way near the Fuller Road Substation due to the expansion of the substation. There will be tree clearing associated with creating the new right-of-way; the tree clearing will be conducted entirely on U.S. Marine Corps Base Quantico ("MCBQ") property. In addition to the clearing required within new right-of-way at Fuller Road Substation and encroachments into existing right-of-way between Aquia Harbour Switching Station and Aquia Substation, limited clearing or limbing may be required to accommodate construction access. Lastly, tree clearing will also be needed to maintain the existing right-of-way. Any clearing will be done in accordance with the Company's Integrated Vegetation Management Plan ("IVMP") practice with no grabbing of roots or stump materials. 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.L.

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 Rappahannock (Hydrologic Unit Code 02080104) and Lower Potomac (Hydrologic Unit Code 02070011) watersheds. The U.S. Geological Survey (“USGS”) topographic quadrangles for Quantico, Widewater, Stafford, and Fredericksburg depict the study area as existing, cleared transmission line traversing through gently to steeply sloping terrain. The expansion area near Fuller Road Substation is forested abutting the cleared transmission line.

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.

Section 28.2-1203 of the Code of Virginia was amended by the Virginia General Assembly through the passage of House Bill 2181 and identical Senate Bill 1074, which were signed into law by Governor Glenn Youngkin, effective July 1, 2023.⁶ With the passage of HB 2181 and SB 1074, the Virginia Marine Resources Commission (“VMRC”) will no longer have jurisdiction over work within non-tidal waters with a drainage area greater than 5.0 square miles. The VMRC still retains authority over crossings of non-tidal waters with a drainage area greater than 5.0 square miles when there are no proposed in-stream impacts. On June 23, 2023, the VMRC and DEQ issued a Memorandum of Agreement for implementing Chapters 258 and 259 of the 2023 Session of the Virginia Acts of Assembly to document this transition of permitting authority in non-tidal waters of the Commonwealth.⁷

The Company solicited comments from the VMRC regarding the proposed Rebuild Project on July 2, 2024. If a response is received before the Company files the Application, a copy of the letter will be included as Attachment 2.B.1.

Based on the Company’s review, Aquia Creek, Chopawamsic Creek, Little Creek, and Quantico Creek are present within the Rebuild Project and considered state-owned submerged lands. Aquia Creek and Quantico Creek are also regulated by the U.S. Army Corps of Engineers (“Corps”) under Section 10 of the Rivers and Harbors Act of 1899. Because aerial crossings of these waterbodies are proposed, and two structures will be replaced within Quantico Creek, a Joint Permit

⁶ See Chapter 258 of the 2023 Session of the Virginia Acts of Assembly (effective July 1, 2023) available at <https://lis.virginia.gov/cgi-bin/legp604.exe?231+ful+CHAP0258>, and Chapter 259 of the 2023 Session of the Virginia Acts of Assembly (effective July 1, 2023) available at <https://lis.virginia.gov/cgi-bin/legp604.exe?231+ful+CHAP0259>.

⁷ See <https://www.wetlands.com/vmrc-deq-moa/> for changes to VMRC permitting in non-tidal waters, and <https://www.wetlands.com/wp-content/uploads/FINAL-MOANontidal-Permitti.pdf> for a copy of the Memorandum of Agreement.

Application (“JPA”) will be submitted for review by the Corps, VMRC, DEQ, and applicable local wetlands boards. Discussion of this coordination is included in the tidal and non-tidal wetlands sections (Section D) below.

C. Discharge of Cooling Waters

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

D. Tidal and Non-tidal Wetlands

Based upon desktop analysis further described below, Palustrine Emergent Wetland (“PEM”) seasonally flooded tidal wetlands were identified within the Rebuild Project, associated with Aquia Creek and Quantico Creek. Acreages are provided in Table 1 and Table 2 below. These wetlands are subject to the ebb and flow of regular tides and are regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899 and are under the jurisdiction of the local Wetlands Board and VMRC.

Non-Tidal Wetlands Impact Consultation

Within the Rebuild Project, the Company performed an off-site analysis of wetlands and other potential waters of the United States (“WOTUS”) using current and historic aerial imagery, topographic quadrangles, U.S. Fish and Wildlife Service (“USFWS”) National Wetland Inventory (“NWI”), and the Natural Resources Conservation Service (“NRCS”) Soil Survey. The study determined the approximate locations and extents of potential WOTUS. These areas were assigned a probability ranking ranging from high probability to low probability using criteria described below.

- Low probability: Areas that demonstrate positive indicators for potential wetlands based on one of the above-mentioned off-site resources.
- Medium probability: Areas that demonstrate positive indicators for potential wetlands based on two or three of the above-mentioned off-site resources.
- High probability: Areas that demonstrate positive indicators for potential wetlands based on all four of the above-mentioned off-site resources.

A map depicting the potential limits of wetlands and other waters is provided as Attachment 2.D.1. Potential jurisdictional resources within the proposed Rebuild Project are provided in Table 1 and Table 2, and are detailed in Attachment 2.D.1.

Table 1. Potential Jurisdictional Resources within Line #29, #252, and #568 Rebuild Corridor⁸

Resource Type	Probability			Total
	Low	Medium	High	
Palustrine Emergent and Scrub/Shrub Wetlands – Non-Tidal	15.22 Acres	22.07 Acres	15.95 Acres	53.24 Acres
Palustrine Emergent and Scrub/Shrub Wetlands – Tidal	N/A	2.00	9.84 Acres	11.84 Acres
Forested Wetlands	0.19 Acres	N/A	N/A	0.19 Acres
Tidal Water	N/A	N/A	12.45 Acres	12.45 Acres
Open Water Non-tidal	N/A	N/A	0.50 Acres	0.50 Acres
Stream	N/A	N/A	1.62 Acres 14,191 Linear Feet	1.62 Acres 14,191 Linear Feet

Table 2. Potential Jurisdictional Resources within the 2083 Rebuild Corridor

Resource Type	Probability			Total
	Low	Medium	High	
Palustrine Emergent and Scrub/Shrub Wetlands – Non-Tidal	0.23 Acres	0.72 Acres	N/A	0.95 Acres
Open Water Non-tidal	N/A	N/A	0.29 Acres	0.29 Acres
Stream	N/A	N/A	0.11 Acres 1,151 Linear Feet	0.11 Acres 1,151 Linear Feet

The Company will conduct a field delineation of the Rebuild Project right-of-way and submit to the Corps for verification. As with waters, if impacts to wetlands are proposed, a JPA will be submitted for review by the VMRC, DEQ, and Corps for authorization under Sections 404/401 of the Clean Water Act.

The Company solicited comments from the DEQ Office of Wetlands and Stream Protection and the Corps in July 2024. Comments were received on July 22, 2024,

⁸ Tables 1 and 2 have been updated since the Company sent its July 2, 2024, letters soliciting comments from local and state agencies.

and are included as Attachment 2.D.2.⁹ DEQ recommendations among others include that prior to commencing the Rebuild Project work, delineate all surface waters by a qualified professional; wetland and stream impacts should be avoided and minimized to the maximum extent practicable; and temporary impacts to surface waters should be restored to pre-existing conditions. Based on DEQ's review, the Rebuild Project will require a Construction General Permit and may require a VWP individual or general permit.

E. Floodplains

As depicted on the Federal Emergency Management Agency's ("FEMA") online Flood Insurance Rate Maps #5100650036D and #5100650028D (effective dates 4/5/2023), #51179C0134G, #51179C0132G, #51179C0151G, and #51179C0063G (effective date June 21, 2023), #51153C0313E, #51153C0312E, #51153C0316E, and #51153C0317E (effective date August 3, 2015), and #51153C0311D (effective date January 5, 1995) the majority of the Rebuild Project lies within Zone X, which is an area of minimal flood hazard, outside of the 100-year floodplain. The following 100-year floodplains mapped as Zone AE or VE are crossed by the Rebuild Project:

- Aquia Creek: Between structures #29/1789 and #29/1792, and #252/5522 and #252/5525.
- Chopawamsic Creek: Between structures #29/1811 and #29/1814, and #252/5544 and #252/5547.
- Little Creek: Between structures #29/1836 and #29/1837, and #252/5569 and #252/5570.
- Quantico Creek: Intermittently between structures #29/1844 and #29/1855, #252/5577 and #252/5583.

The Company will coordinate with the local floodplain coordinators as required.

F. 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 of the proposed Rebuild Project to identify sites that may impact the proposed Rebuild Project. This report is included as Attachment 2.F.1.

Publicly available data from the U.S. Environmental Protection Agency's ("EPA") Facility Registry System was obtained, which provides information about facilities, sites, or places subject to environmental regulation or of environmental interest. Although this data set contains all sites subject to environmental regulation by the EPA or other regulatory authorities, including sites that fall under air emissions or wastewater programs, the results reported

⁹ As explained in footnote 8, because of the updates made to Tables 1 and 2 of this DEQ Supplement, information in Table 1 of the response differs from information in this DEQ Supplement.

here only include those sites which fall under the EPA's hazardous waste, solid waste, remediation, and underground storage tank programs (i.e., Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), Resource Conservation and Recovery Act ("RCRA"), or brownfield sites).

In summary, a total of 16 RCRA sites, six solid waste sites, three sites on the Toxics Release Inventory ("TRI"), 63 petroleum release sites, and 18 registered petroleum tank sites are located within a 0.5 mile radius of the Rebuild Project site; however, none of the sites are located within the Rebuild Project's existing transmission corridor nor are expected to affect the Rebuild Project. No EPA-registered brownfield sites or CERCLA/Superfund sites are located within 0.5 mile of the Rebuild Project. The TRI is managed by the EPA to provide information about toxic chemical releases and pollution prevention activities reported by industrial and federal facilities. One site on the TRI is active and located at the Company's Possum Point Power Station approximately 1,000 feet from the Rebuild Project. The two other sites on the TRI are either inactive or unknown and located more than 2,000 feet from the Rebuild Project.

G. Natural Heritage, Threatened and Endangered Species

On behalf of the Company, Stantec conducted online database searches for threatened and endangered species in the vicinity of the Project, including the USFWS Information, Planning, and Conservation ("IPaC") system, the Virginia Department of Wildlife Resources' ("DWR") Virginia Fish and Wildlife Information Service ("VAFWIS"), the DWR Northern Long-Eared Bat ("NLEB") Regulatory Buffer Interactive Tool, the Virginia Department of Conservation and Recreation's ("DCR") Natural Heritage Data Explorer ("NHDE"), and the Center for Conservation Biology's ("CCB") Bald Eagle Nest Locator. The results of the database searches are included as Attachment 2.G.1, and are summarized in the table below:

Table 3. Threatened and Endangered Species within the Rebuild Project Vicinity

Species	Status	Database	Results
Indiana bat (<i>Myotis sodalist</i>)	FE SE	USFWS	No hibernacula or maternal roost trees identified in the vicinity of the Rebuild Project.
Northern long-eared bat (<i>Myotis septentrionalis</i>)	FE ST	USFWS, DWR	No hibernacula or maternal roost trees identified in the vicinity of the Rebuild Project.
Tricolored bat (<i>Perimyotis subflavus</i>)	PFE SE	USFWS, DWR	No hibernacula or maternal roost trees identified in the vicinity of the Rebuild Project.
Dwarf wedgemussel (<i>Alasmidonta heterodon</i>)	FE SE	USFWS, DWR, DCR	Identified as potentially occurring within or near the Rebuild Project.
Green floater (<i>Lasmigona subviridis</i>)	PFT ST	USFWS, DWR, DCR	Identified as potentially occurring within or near the Rebuild Project.
Yellow lance (<i>Elliptio lanceolata</i>)	FT ST	USFWS, DCR	Identified as potentially occurring within or near the Rebuild Project.
Harperella (<i>Ptilimnium nodosum</i>)	FE SE	USFWS	Identified as potentially occurring within or near streams near the Rebuild Project.
Sensitive joint vetch (<i>Aeschynomene virginica</i>)	FT ST	USFWS, DCR	Identified as potentially occurring within or near freshwater marshes near the Rebuild Project.
Small whorled pogonia (<i>Isotria medeoloides</i>)	FT SE	USFWS, DCR	Identified as potentially occurring within or near open understory near the Rebuild Project.
Monarch butterfly (<i>Danaus plexippus</i>)	FC	USFWS	Identified as potentially occurring within or near the Rebuild Project.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	BGEPA	DWR, CCB	Identified as observed within a two mile radius of the Rebuild Project area. Bald eagle nest PW1 103 is located 122 feet from the Rebuild Project.
Brook floater (<i>Alasmidonta varicosa</i>)	SE	DWR, DCR	Identified as observed within a two mile radius of the Rebuild Project.
Atlantic sturgeon (<i>Acipenser oxyrinchus</i>)	FE SE	DWR	Identified as observed within a two mile radius of the Rebuild Project.
Peregrine falcon (<i>Falco peregrinus</i>)	ST	DWR	Identified as observed within a two mile radius of the Rebuild Project.
Virginia Piedmont water boatman (<i>Sigara depressa</i>)	FSOC SE	DCR	Identified as observed within the Rebuild Project watershed.
American burying beetle (<i>Nicrophorus americanus</i>)	FT	DCR	Identified as observed within the Rebuild Project watershed.

FT: federally threatened, FE: federally endangered, FPT: federally proposed threatened, FC: federal candidate species, FSOC: federal species of concern, ST: state threatened, SE: state endangered, BGEPA: Bald and Golden Eagle Protection Act

The Company submitted a Rebuild Project Review request to DCR on May 10, 2024. On June 7, 2024, the Company received correspondence from DCR stating that Parker's pipewort (*Eriocaulon parkeri*, status: G3/S2) is documented within the Rebuild Project vicinity along with one conservation site. The plant is very rare to uncommon in Virginia (Status: G3/S2) and can occur in the intertidal zone of tidal waterbodies. Comments from the DCR concerning other natural heritage resources are discussed further below. Correspondence from DCR is included as Attachment 2.G.2. Additionally, the Company requested comments from the USFWS, DWR, and DCR regarding the proposed Rebuild Project in July 2024. Agency comments, if received prior to filing, will be included as Attachment 2.G.3.

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

Bats

The majority of the work will take place within existing cleared and maintained transmission line right-of-way, where tree limbing and removal would be limited to danger trees and construction access. Approximately four acres of right-of-way will be cleared near the Fuller Road Substation, within MCBQ, to expand the existing right-of-way to accommodate the Rebuild Project. Additionally, approximately 65 feet of the Company's western edge of the right-of-way is unmaintained between Aquia Harbour Station and Aquia Substation but will be required for the Rebuild Project. The Company intends to conduct any tree clearing activities outside of any required time-of-year restrictions to protect listed bat species or conduct surveys to document presence or absence of the species.

Aquatic Species

Construction access will avoid stream crossings where practical or use crane mats to span stream crossings. In-stream work will be required to replace two transmission line structures within Quantico Creek. According to the Virginia Institute of Marine Science's Submerged Aquatic Vegetation ("SAV") Monitoring and Restoration Program, Quantico Creek contains SAV.

The Company will work with the Corps and VMRC during the permitting process to identify and implement required mitigative measures for the work within tidal Quantico Creek. Additionally, erosion and sediment controls would be used as appropriate throughout the Rebuild Project. Under these conditions, impacts to listed aquatic species are not expected. Therefore, there should be no adverse effects to the dwarf wedgemussel, yellow lance, Atlantic sturgeon, green floater, and brook floater.

Listed Plants

Three listed plant species have been identified as potentially occurring near the Rebuild Project's existing corridor: harperella, small whorled pogonia, and sensitive joint vetch. Harperella are generally found along the rocky shoals and margins of clear, swift-flowing streams but were not noted by the DCR in the natural heritage review as potentially being present in the Rebuild Project vicinity. Small whorled pogonia inhabits upland mixed hardwood and hardwood stands where there are long-persistent breaks in canopy cover. Sensitive joint vetch inhabits freshwater or brackish tidal marshes, in areas with less plant competition. The Company will undertake a small whorled pogonia and sensitive joint vetch habitat surveys to determine if the area has appropriate habitats, and if so, conduct species surveys.

Bald Eagle

The nearest identified bald eagle nest, PW1103, is located 0.02 mile (122 feet) from the Rebuild Project's existing corridor along Quantico Creek. The second closest bald eagle nest, PW0201, is located 0.18 mile (950 feet) from the Rebuild Project's existing corridor near the Possum Point Generating Station. The breeding season for this species is December 15 through July 15. The Company will evaluate the proposed work and tentative schedule to avoid work within the 660-foot buffer during the breeding season. If work within the restrictive buffer is not feasible, the Company will coordinate with USFWS accordingly to avoid and minimize impacts to the extent practical.

Natural Heritage Resources

An initial project review of the DCR Natural Heritage Data Explorer identified natural heritage resources within the project area. The Company submitted the project to DCR for a more detailed review. The response from DCR was received on June 7, 2024, and is included as Attachment 2.G.2.

DCR has identified one conservation site within the Rebuild Project existing corridor. The Aquia Creek – Rt. 1 – Government Landing Stream Conservation Site has been assigned a biodiversity rank of B2, which represents a site of very high significance. The natural heritage resource associated with this site is Parker's pipewort (*Eriocaulon parkeri*). This species has a state conservation ranking of S2, which is state imperiled; however, this species has no legal status. DCR did not recommend any specific protections for this species.

DCR's comments also recommend that the Company develop and implement an invasive species plan to be included as part of the maintenance practices for the entirety of the right-of-way for the Rebuild Project. Based on discussions between the Company and DCR DNH representatives, the Company reviewed its Integrated Vegetation Management Plan ("IVMP") for application to both woody and herbaceous species, using the species list available on the DCR website. The Company continues to coordinate with DCR on an addendum to the IVMP to further explain how the Company's operations and maintenance forestry program addresses invasive species. In November 2023, the Company submitted the addendum draft to DCR for review and continued discussions. DCR provided initial response to the addendum in January 2024. The Company will continue to meet with DCR to further discuss the documentation provided. Once the addendum is finalized, the Company will report on the results of its communications with DCR in future transmission certificate of public convenience and necessity filings.

DCR also recommends that right-of-way restoration and maintenance practices include appropriate vegetation using native species in a mix of grasses and forbs, robust monitoring and an adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur. The Company's restoration and maintenance practices are dictated by the

requirements of the DEQ Construction General Permit for the discharge of stormwater associated with construction as well as the approved Annual Standards and Specifications (See sections 2.H and 2.J). The seed mixes, which include native species, and inspection requirements are stipulated by DEQ through those approvals.

New and updated information is continually added to the DCR's Biotics database. Following the DCR-DNH SCC planning stage project review, the Company will re-submit project information with a completed information services order form and a map or submit the project on-line through the Natural Heritage Data Explorer. This review will occur during the final stage of engineering and upon any major modifications of the project during construction (i.e., deviations, permanent, or temporary, from the original study area and/or the relocation of a structure(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.

H. Erosion and Sediment Control

The DEQ approved the Company's *Annual Standards & Specification for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Electric Transmission Facilities (TE VEP 8000)* in February 2024. 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 Project begins and specify the requirements for rehabilitation of the existing transmission corridor. A copy of the current DEQ approval letter dated February 27, 2024, is provided as Attachment 2.H.1. According to the approval letter, coverage is effective from February 27, 2024, through February 26, 2025.

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

The Company solicited comments from the Virginia Department of Historic Resources ("VDHR") in July 2024. If comments from the VDHR are received prior to filing, comments will be included as Attachment 2.I.1. Stantec was retained by the Company to conduct a Stage I Pre-Application Analysis, which is included as Attachment 2.I.2. As detailed by VDHR guidance, consideration was given to: National Historic Landmark ("NHL") properties located within a 1.5 mile radius of the Rebuild Project centerline within the existing corridor; National Register of Historic Places ("NRHP") listed properties, battlefields, and historic landscapes located within a 1.0 mile radius of the Rebuild Project centerline; NRHP-eligible sites located within a 0.5 mile radius of the Rebuild Project centerline; and archaeological sites located within the existing Rebuild Project Corridor. A Phase I Archaeological Survey will be conducted in the field prior to construction.

Archaeological Resources

One eligible on the NRHP unevaluated, and two not eligible known archaeological resources were identified within the existing right-of-way. These resources are provided in Table 4 below. There are no known archaeological sites within or immediately adjacent to the proposed right-of-way.

Table 4. Archaeological Resources Considered in the Stage I

DHR #	Resource Name	NRHP Status	Closest Existing Structure #	Distance to Closest Structure (Feet)	Recommendation
44PW0386	Pre-Contact/Unknown	Not Evaluated	252/5880; 29/1847	0	Investigate During Archaeological Survey
44PW0387	Pre-Contact/Unknown	Not Evaluated	252/5881; 29/1848	230	Investigate During Archaeological Survey
44PW0392	Pre-Contact/Unknown	Not Evaluated	252/5882;	145	Investigate During Archaeological Survey
44PW0439	Middle Archaic	Not Evaluated	252/5883;	0	Investigate During Archaeological Survey
44PW0442	Pre-Contact/Unknown	Not Evaluated	29/1851	0	Investigate During Archaeological Survey
44PW1106	Late Archaic Period, Antebellum Period, Civil War, Reconstruction and Growth	DHR Determined Eligible in 2017	252/5562 29/1829	0	Investigate During Archaeological Survey
44PW1288	Late Archaic	Not Evaluated	252/5548 29/1815	0	Investigate During Archaeological Survey
44PW1665	World War I to World War II, The New Dominion	Not Evaluated	252/5564 29/183	0	Investigate During Archaeological Survey
44ST0303	Pre-Contact/Unknown 19th Century: 4th quarter, 20th Century: 1st half	Not Evaluated	252/5543 29/1810	330	Investigate During Archaeological Survey
44ST0375	Pre-Contact/Unknown	Not Eligible	252/5540 29/1807	220	Investigate During Archaeological Survey
44ST0595	Late Archaic , Middle Woodland	Not Eligible	252/5540 29/1807	182	Investigate During Archaeological Survey
44ST1144	Pre-Contact/Unknown	Not Evaluated	252/5546 29/1813	199	Investigate During Archaeological Survey

DHR #	Resource Name	NRHP Status	Closest Existing Structure #	Distance to Closest Structure (Feet)	Recommendation
44ST1145	Pre-Contact/Unknown	Not Evaluated	252/554629/1813	65	Investigate During Archaeological Survey

Architectural Resources

Five architectural resources are listed on the NRHP (two are also listed on the VLR and one is also listed on the VLR and NHL), one eligible resource, one potentially eligible resource, and one unevaluated resource were considered for the Stage I analysis of the Lines #29, #252, and #568 transmission corridor. Fifteen resources are listed on the NRHP (11 are also listed on the VLR and three are also listed on the VLR and NHL), three eligible resources, and two potentially eligible resources mile were considered for the Stage I analysis of the Line #2083 transmission corridor. The Stage I report recommends there will be no impacts to historic properties from the proposed Rebuild Project when no proposed structures will be visible. Stantec has recommended minimal or no visual impact for all resources with views of the Rebuild Project. The Stage I report was sent to VDHR in August 2024 for concurrence. These resources are provided in Tables 5 and 6 below.

Table 5. Architectural Resources Considered in the Stage I, Line #29, #252, & #568

DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
076-0299	Chopawamsic Recreation Demonstration Area/ Prince William Forest Park Historic District	Listed in NRHP in 2012; Listed in VLR in 2010	2,730	None
076-0301/500-0001	Richmond, Fredericksburg & Potomac Railroad	Determined Potentially Eligible by DHR in 2016; Contributing to DHR #500-0001 (Determined Eligible for Listing in the NRHP by VDHR in 2018)	0	Minimal
076-5842	Cockpit Point Battlefield	Not Evaluated	0	Minimal
076-5313	Camp French (Historic)	Listed in NRHP and VLR in 2008	2,037	NA
089-0008	Aquia Church	Listed NRHP and VLR in 1969; NHL in 1991	4,017	None
089-0069	Brent Cemetery	Eligible by DHR in 1988	2,216	None

DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
076-0299	Chopawamsic Recreation Demonstration Area/ Prince William Forest Park Historic District	Listed in NRHP in 2012; Listed in VLR in 2010	2,730	None
089-0103	Aquia Creek Quarry/Brent's Island	NRHP-Listed in 2007	1,698	Minimal
287-0010	Quantico Marine Corps Base Historic District	NRHP-Listed 2001	4,428	Minimal

Table 6. Architectural Resources Considered in the Stage I, Line #2083

DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
089-0006/44ST0007	Hunter's Iron Works	NRHP listed 1974 and VLR Listed 1973	3,250	NA
111-0008	Brompton	NRHP and VLR Listed 1979	4,447	None
111-0047	Kenmore Plantation/Millbrook	NRHP and VLR Listed 1969, NHL 1970	4,606	Minimal
111-0107	John Lewis House/Rowe House/War Hospital	NRHP and VLR Listed 2008	5,112	None
111-0149	Fall Hill	NRHP and VLR Listed 1973	1,342	Minimal
111-5007	Carl's Frozen Custard Stand	VLR Listed 2000; NRHP Listed 2005	3,982	None
111-5265	Fredericksburg City and Confederate Cemeteries	VLR Listed 2018; NRHP Listed 2019	4,380	None
111-5267	Elmhurst	VLR Listed 2007; NRHP Listed 2008	3,626	None
111-5473	Allman's Bar-B-Que	Determined Eligible 2022 (DHR)	556	Minimal
089-0022	Belmont/Gari Melchers Home	NHL 1965, NRHP Listed 1966	4,068	None
111-0066	James Monroe Law Office	NHL 1966, NRHP Listed 1966, VLR Listed 1969	6,184	None
111-0088	Eagle Tavern/Rising Sun Tavern	NHL 1964, NRHP Listed 1966, VLR Listed 1969	6,103	None
111-0132	Fredericksburg Historic District	VLR and NRHP Listed 1971	5,132	None
111-0147	Fredericksburg and Spotsylvania Battlefields National Military Park	VLR Listed 1973; NRHP Listed 1966; expanded boundaries 2018	1,539	Minimal

DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
111-5262	Washington Avenue Historic District	VLR Listed 2001; NRHP Listed 2002	3,864	None
088-5180	Chancellorsville Battlefield	DHR Eligible 2022	2,617	None
088-5181	Bank's Ford/Salem Church Battlefield	DHR Eligible 2022	0	Minimal
111-5295	Battle of Fredericksburg I	DHR Potentially Eligible 2017	0	Minimal
111-5296	Battle of Fredericksburg II	DHR Potentially Eligible 2007	0	Minimal
089-0067	Falmouth Historic District	Listed VLR 1967; NRHP 1970	4,331	None

J. Chesapeake Bay Preservation Areas

The proposed Rebuild Project is located in Stafford County, Prince William County, and the City of Fredericksburg. All jurisdictions are subject to the Chesapeake Bay Preservation Act; however, 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. If DEQ provides a memorandum response prior to filing, it will be included as Attachment 2.J.1. The Company will meet any requirements and conditions as applicable and in accordance with the Dominion Energy Virginia *Standards & Specifications for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Electric Transmission Facilities* as approved by DEQ.

K. Wildlife Resources

Relevant agency databases were reviewed and requests for comments from the USWFS, DWR, and DCR were submitted to determine if the proposed Rebuild Project has the potential to affect any threatened or endangered species, as described in Section 2.G and included as Attachment 2.G.2. As discussed in Section 2.G and identified in Attachment 2.G.1, certain federal and state listed species were identified as potentially occurring in the Rebuild Project. Substantially all of the Rebuild Project will be located within existing maintained transmission line corridor. The Rebuild Project will require additional right-of-way reclamation and trimming of tree limbs. Additionally, as explained in the Appendix, the Rebuild Project is proposing to clear additional right-of-way width near the Fuller Road Substation. The entirety of this substation expansion and tree clearing will occur on MCBQ property. None of the proposed clearing areas

are located within an ecological core. Given the minimal need for expanded right-of-way, no significant loss of wildlife habitat is expected.

In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern long-eared bat (“NLEB”) and how it could potentially impact construction timing associated with time of year restrictions (“TOYRs”). The USFWS previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. In the meantime, the USFWS issued several draft guidance documents for public review and comment. The Company actively is tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company’s projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat (“TCB”). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act (“ESA”). On April 1, 2024, the USFWS issued draft guidance for NLEB and TCB for public review and comment. The USFWS also recently extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects’ permitting, construction, and in-service dates, including electric transmission projects.

L. Recreation, Agricultural and Forest Resources

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. There are approximately 62.0 acres of land designated as prime farmland within the Rebuild Project. 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. There are approximately 103.3 acres designated as farmland of statewide importance within the Rebuild Project. 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. Prince William County,

Stafford County, and the City of Fredericksburg have not designated farmlands of local importance.

Farming operations currently exist within the Rebuild Project's existing right-of-way; however, the Company utilizes timber mats to access transmission structures within agricultural fields, and pads for structure erection. These will minimize the impact to the soil to result in only a temporary impact, thereby avoiding permanent impacts to farmlands from construction access. The Company will work with landowners on final structure placement to minimize the effect on farming operations. Due to the structure type changing from H-frames to monopoles, the Rebuild Project will reduce the structure footprint and allow more room for farming operations within the right-of-way. As such, prime farmland and agricultural and forestal districts should not be incrementally impacted by the construction of the Rebuild Project. 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. There are no open-space easements within or adjacent to the Rebuild Project. In July 2024, the Company contacted Virginia Outdoors Foundation ("VOF") and the Virginia Department of Forestry ("VDOF") for comments on the proposed Rebuild Project. VOF responded that as of July 2, 2024, there are not any existing nor proposed VOF open-space easements immediately adjacent to the Rebuild Project. Comments are included in Attachment 2.L.1.

The Virginia Scenic Rivers Act seeks to identify, designate, and protect rivers and streams that possess outstanding scenic, recreational, historic, and natural characteristics of statewide significance for future generations. The Rebuild Project does not cross and is not adjacent to any designated state scenic rivers. The Rappahannock River is the closest designated state scenic river, approximately 0.56 mile away from the Rebuild Project. Because this is a rebuild project and there are no direct impacts to the scenic river, minimal impacts are anticipated.

There are no scenic byways within close proximity to the Rebuild Project. The closest designated scenic byway is approximately 0.61 mile north of Structure #29/1823, Joplin Road (Route 619). Because of the distance and type of work proposed, the Rebuild Project will have no impact on scenic byways. The National Park Service's Battlefield Boundaries Map shows a Civil War Battlefield area in the City of Fredericksburg vicinity of the Rebuild Project. However, review of tax records confirms that there is no land owned by the National Park Service within the Rebuild Project.

Since the project is a rebuild of existing transmission lines, the Rebuild Project would not be expected to interfere with any proposed trail plans by the City of Fredericksburg, Stafford County, or Prince William County. The Quantico Museum trail system also cross the right-of-way. The Quantico Museum trail system extends into Prince William County's Locust Shade Park and is part of the Potomac Heritage National Scenic Trail System managed by the National Park Service. The trails should not be permanently impacted by the Rebuild Project.

There are some Stafford County Parks and Prince William County Parks in the area including Locust Shade Park, which contains a few trails within the right-of-way. The Company will coordinate with Prince William County Parks and Recreation on construction within the right-of-way at these locations to minimize disruption to users of the parks. As discussed in the Appendix, the Rebuild Project is proposing expanded right-of-way near the Fuller Road Substation to accommodate the line configuration. There will be tree clearing associated with the substation expansion located entirely on MCBQ property. In addition to the clearing required within new right-of-way at Fuller Road Substation and encroachments into existing right-of-way between Aquia Harbour Switching Station and Aquia Substation, limited clearing or limbing may be required to accommodate construction access. Lastly, tree clearing will also be needed to address the portion of existing right-of-way between Aquia Harbor Station and Aquia Substation that has not been maintained previously for electric transmission operations. Any clearing will be done in accordance with the Company's IVMP practice with no grabbing of roots or stump materials. The remainder of the existing transmission right-of-way is currently cleared and maintained for 230 kV transmission line operations. The forested areas are located in a low-density residential area and within MCBQ.

M. Use of Pesticides and Herbicides

Of the techniques available, selective foliar is the preferred method of herbicide application. The Company typically maintains transmission line right-of-way and spaces for transmission line operation on Company property 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. See Section G for discussion of the Company's IVMP.

N. 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 City of Fredericksburg portion of the Rebuild Project's existing right-of-way is located on Lower Tertiary Deposits and the Windsor Formation which consists of gravel with sands. The Rebuild Project existing corridor in Stafford and Prince William Counties is located on Quaternary, Cretaceous, and Lower Tertiary Deposits and the Potomac Formation, Shirley Formation and alluvium which consists of sands and alluvium 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 Energy map shows there is one abandoned mine within the existing transmission line corridor. The site was active from 1961 to 1965. No environmental or safety hazards were identified in a 2011 report from the Virginia Department of Energy. There is one sand mine within one mile of the corridor in the City of Fredericksburg. The sand mine is approximately 0.82 miles from the Rebuild Project. In Stafford County, there are two sand mines, one sandstone mine, and one sand and gravel mine within one mile of the Rebuild Project. One sand mine is within the Rebuild Project near Structure #29/1791 and #252/5524. The other sand mine is approximately 0.34 mile from the corridor, while the sand and gravel mine is approximately 0.14 mile, and the sandstone mine is approximately 0.37 mile. There are no mines within one mile of the Rebuild Project existing corridor in Prince William County. Due to the work associated with the Rebuild Project, it is not anticipated that the Rebuild Project will result in negative impacts on the geology or mineral resources. Work in the vicinity of the mine within the right-of-way would be limited to the replacement of one transmission line structure. The Company will utilize timber matting as needed to protect the resource.

O. Transportation Infrastructure

The existing corridor for Lines #29, #252, and #568 crosses several Virginia Department of Transportation ("VDOT") maintained mid- to high-volume roadways, including Route 1 in Stafford and Prince William Counties and Interstate 95 in Prince William County, along with several low-volume secondary roadways. The Company plans to apply for land use permits from VDOT for any

aerial crossings of VDOT maintained roads and any construction entrances from the VDOT right-of-way. The Company also plans to apply for permits from the City of Fredericksburg for any aerial crossings or construction entrances off of city-maintained roads, including Mary Washington Boulevard (Route 111), in support of Line #2083 construction. All permits will be obtained prior to construction. In July 2024, the Company solicited comments from VDOT regarding the proposed Rebuild Project. Although VDOT responded to the Company acknowledging the solicitation of comments, the agency has not provided a formal response.

The Marine Corps Air Facility Quantico is approximately 2.0 miles southeast of Fuller Road Substation, Stafford Regional Airport is located approximately 5.0 miles southwest of Aquia Harbour Station, and Shannon Airport is located approximately 3.2 miles southeast of Fredericksburg Substation. Proposed structure heights for the Rebuild Project will comply with required maximum heights defined for these zones by the Federal Aviation Administration (“FAA”). The design of the proposed Rebuild Project must not prevent interference with pilots’ safe ingress and egress at the airports. Such hazard or impediments include interference with navigation and communication equipment and glare from materials and external lights. The Company solicited comments from the Virginia Department of Aviation (“DOAv”) regarding the proposed Rebuild Project. Agency comments, if received prior to filing, will be included in Attachment 2.O.1. Due to the proximity of the Rebuild Project to nearby airports and information contained within the FAA Notice Criteria Tool, the Company will submit a 7460 form to the FAA to initiate airspace study to evaluate whether the project will create a hazard to navigation.

The proposed Rebuild Project’s existing corridor crosses one active railroad corridor near Possum Point Substation. The corridor is owned by CSX Transportation and utilized in numerous Amtrak routes.

The Company will secure all necessary permits from VDOT, the City of Fredericksburg, DOAv, FAA, and railroads prior to construction in the respective right-of-way.

P. Drinking Water Wells

In July 2024, the Company requested comments on the proposed Rebuild Project from various DEQ entities. DEQ forwarded the Company’s request to the Virginia Department of Health’s Office of Drinking Water (“VDH-ODW”), which responded on July 26, 2024, regarding the proximity of the Rebuild Project to public drinking water sources (groundwater wells, springs and surface water intakes). Comments from VDH-ODW are included as Attachment 2.P.1. VDH-ODW identified three public groundwater wells within a one mile radius of the Rebuild Project. There are three surface water intakes located within a five mile radius of the Rebuild Project. The Rebuild Project is not within the watershed of any public surface water intakes.

As a general matter, water wells within 1,000 feet of the Rebuild Project's existing corridor may be outside of the right-of-way and located on private property. The Company does not have the ability or right to field mark the wells on private property. In August 2021, the Company contacted VDH-ODW to propose a method of well protection, including plotting and calling out the wells on the Rebuild Project's Erosion and Sediment Control Plan, to which VDH-ODW indicated that the Company's proposed method is reasonable. A copy of that correspondence is included as Attachment 2.P.2. The Company intends to follow this same approach in this proceeding, as it has in other cases, and will coordinate with VDH-ODW, as needed.

Q. Pollution Prevention

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

Attachments

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



July 2, 2024

BY EMAIL

SCC ELECTRIC TRANSMISSION PROJECT NOTIFICATION

Project: Dominion Energy Virginia's Proposed Aquia Harbour – Possum Point Lines #29, #252, #2083 and #568 Rebuild Project

To Whom it May Concern:

Dominion Energy Virginia (the "Company") is proposing to wreck and rebuild approximately 11.4 miles of existing transmission lines, Lines #29, #252, and #568, primarily within existing right-of-way, between the Aquia Harbour Switching Station and the Possum Point Substation in Stafford and Prince William Counties. Line #29, which currently operates at 115 kV, will be uprated to 230 kV standards. Lines #29 and #252 will be primarily rebuilt on double circuit monopole structures utilizing current 230 kV standards. Line #568 is a 500 kV line that will be rebuilt on single circuit monopole structures. Additionally, the Company proposes to wreck and rebuild 0.7 mile of 230 kV Line #2083 on double circuit monopole structures (with vacant arms for future circuits) between the Fredericksburg Substation and Hospital Junction in the City of Fredericksburg. A small section of new right-of-way will be required near the Fuller Road Substation, which is located entirely within Marine Corps Base Quantico. Collectively, this work is referred to as the "Rebuild Project." The Rebuild Project is needed to maintain the structural integrity and reliability of the networked transmission system, comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, and provide for future load growth in the area.

The Company is preparing to file an application for a Certificate of Public Convenience and Necessity ("CPCN") with the State Corporation Commission ("SCC"). We respectfully request that you submit any comments or additional information you feel would have bearing on the Rebuild Project within 30 days of the date of this letter. Once filed, the application will be available for review on the Company's website at <https://www.dominionenergy.com/fredericksburgpossumpoint>.

Enclosed is a Project Overview Map and associated GIS shapefile depicting the route for the Rebuild Project and its general location. Please refer to the CPCN application for any updates to the Rebuild Project description. If there are any questions, please do not hesitate to contact Stacey Ellis (434) 532-9034 or Stacey.T.Ellis@dominionenergy.com.

July 2, 2024
Page 2 of 2

The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.

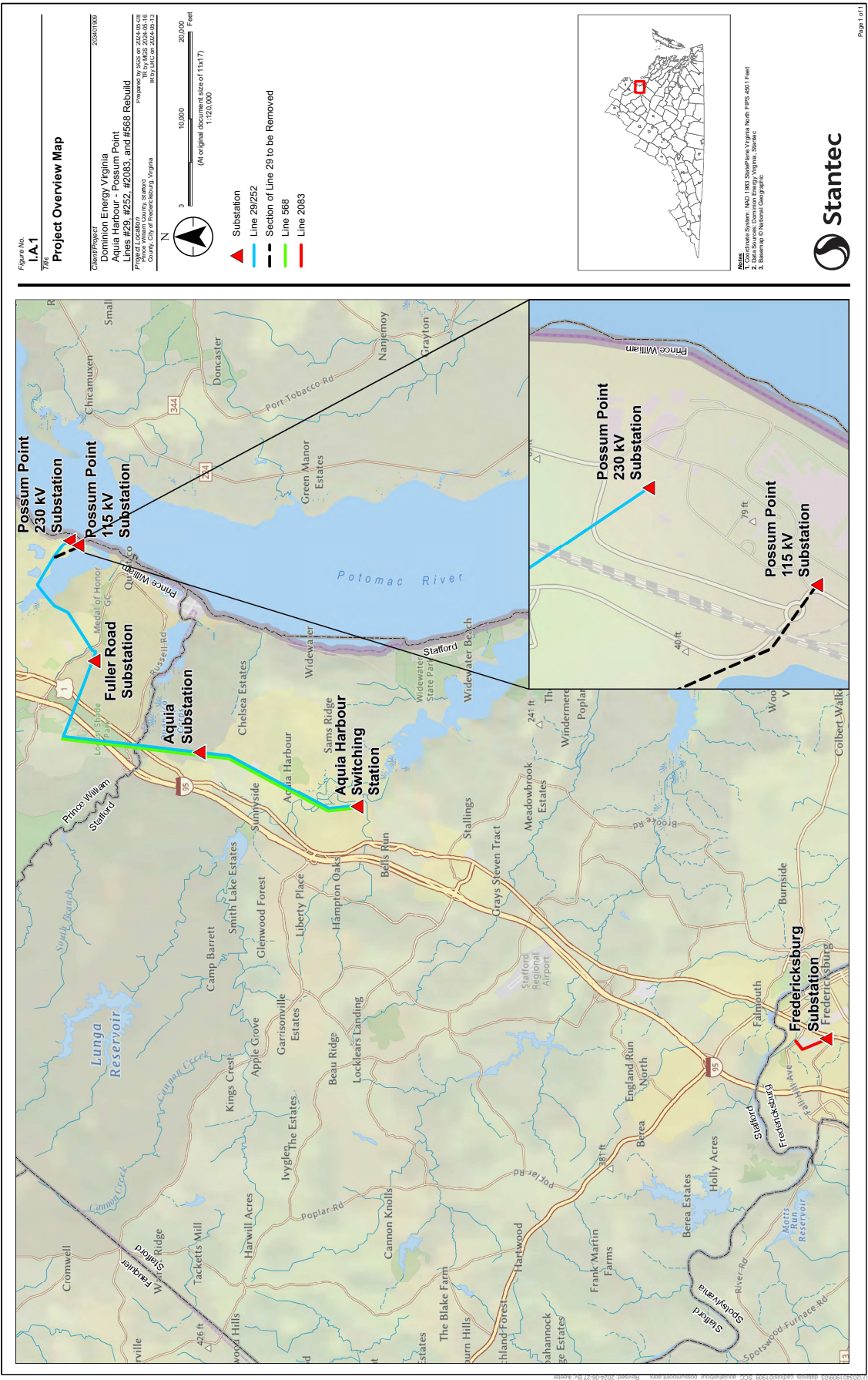
Sincerely,

A handwritten signature in black ink, appearing to read 'ETLH', is positioned above the printed name.

Elizabeth "Tibby" L. Hester
Authorized Representative
Manager, Environmental Regulations
Dominion Energy Virginia

Enclosure:

1. Project Overview Map
2. GIS Shapefile



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



July 2, 2024

BY EMAIL

SCC ELECTRIC TRANSMISSION PROJECT NOTIFICATION

Project: **Dominion Energy Virginia's Proposed Aquia Harbour – Possum Point Lines #29, #252, #2083 and #568 Rebuild Project**

Dear Ms. Henicheck:

Dominion Energy Virginia (the "Company") is proposing to wreck and rebuild approximately 11.4 miles of existing transmission lines, Lines #29, #252, and #568, primarily within existing right-of-way, between the Aquia Harbour Switching Station and the Possum Point Substation in Stafford and Prince William Counties. Line #29, which currently operates at 115 kV, will be uprated to 230 kV standards. Lines #29 and #252 will be primarily rebuilt on double circuit monopole structures utilizing current 230 kV standards. Line #568 is a 500 kV line that will be rebuilt on single circuit monopole structures. Additionally, the Company proposes to wreck and rebuild 0.7 mile of 230 kV Line #2083 on double circuit monopole structures (with vacant arms for future circuits) between the Fredericksburg Substation and Hospital Junction in the City of Fredericksburg. A small section of new right-of-way will be required near the Fuller Road Substation, which is located entirely within Marine Corps Base Quantico. Collectively, this work is referred to as the "Rebuild Project." The Rebuild Project is needed to maintain the structural integrity and reliability of the networked transmission system, comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, and provide for future load growth in the area.

The Company is preparing to file an application for a Certificate of Public Convenience and Necessity ("CPCN") with the State Corporation Commission ("SCC"). Pursuant to the July 2003 Memorandum of Agreement between the SCC and DEQ regarding Wetland Impacts Consultation, the Company is sending this letter to initiate consultation with the DEQ prior to filing the CPCN application with the SCC. A jurisdictional wetland and waters delineation has not been conducted; however, a desktop wetland review was completed. A field delineation will be conducted, and a preliminary jurisdictional determination request will be made to the U.S. Army Corps of Engineers along with the submission of a Joint Permit Application for the Rebuild Project. Table 1 presents the approximate extents of potential jurisdictional features based on the desktop wetland review for the Rebuild Project right-of-way.

Table 1. Potential Jurisdictional Features within Rebuild Project Corridor

Resource Type	Probability			Total
	Low	Medium	High	
Palustrine Emergent and Scrub/Shrub Wetlands – Non-Tidal	9.07 Acres	20.01 Acres	26.06 Acres	55.14 Acres

Ms. Henicheck
July 2, 2024
Page 2 of 2

Palustrine Emergent and Scrub/Shrub Wetlands – Tidal	N/A	N/A	11.79 Acres	11.79 Acres
Forested Wetlands	0.19 Acres	N/A	N/A	0.19 Acres
Tidal Water	N/A	N/A	12.91 Acres	12.91 Acres
Open Water Non-tidal	N/A	N/A	0.49 Acres	0.49 Acres
Stream	N/A	N/A	1.62 Acres 14,229 Linear Feet	1.62 Acres 14,229 Linear Feet

At this time, in advance of filing an application with the SCC, the Company respectfully requests that you submit any comments or additional information that would have bearing on the proposed Project within 30 days of the date of this letter.

Enclosed is a Project Overview Map and associated GIS shapefile depicting the route for the Rebuild Project and its general location. Please refer to the CPCN application for any updates to the Rebuild Project description. If there are any questions, please do not hesitate to contact Stacey Ellis (434) 532-9034 or Stacey.T.Ellis@dominionenergy.com.

The Company appreciates your assistance with this project review and looks forward to any additional information you may have to offer.

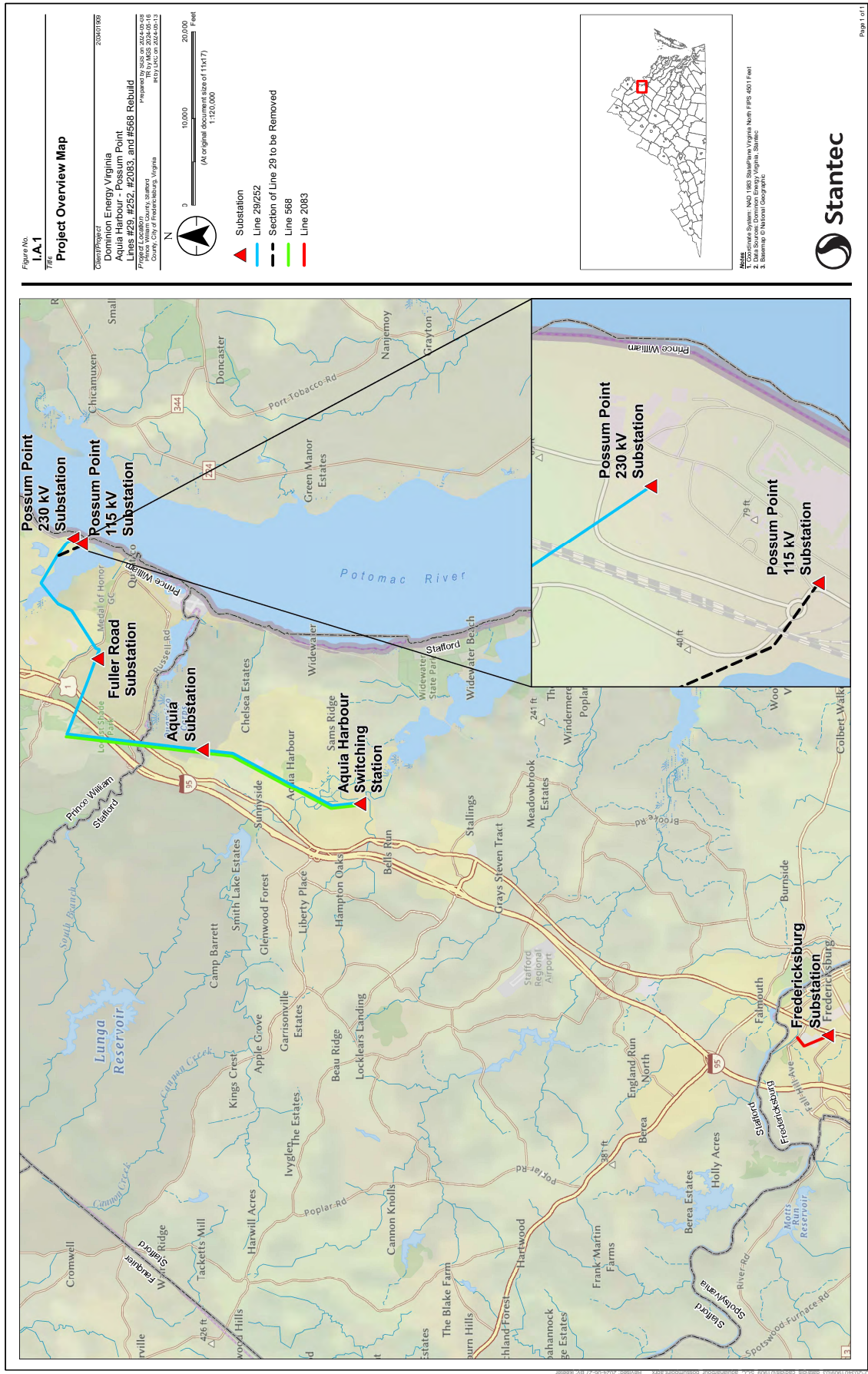
Sincerely,



Elizabeth "Tibby" L. Hester
Authorized Representative
Manager, Environmental Regulations
Dominion Energy Virginia

Enclosure:

1. Project Overview Map
2. GIS Shapefile



*Commonwealth of Virginia***VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY**www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director

July 2, 2024

Stacey T. Ellis
Environmental Specialist III
Dominion Environmental & Sustainability (E&S)
120 Tredegar Street, Richmond, VA 23219
Via email: Stacey.T.Ellis@dominionenergy.com

RE: Dominion Energy Virginia's Proposed Aquia Harbour – Possum Point Lines #29,
#252, #2083 and #568 Rebuild Project, Stafford
and Prince William Counties, VA, Scoping Response

Dear Ms. Ellis:

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

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

DOCUMENT SUBMISSIONS

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

ENVIRONMENTAL REVIEW UNDER VIRGINIA CODE 56-46.1

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

- Department of Environmental Quality:
- DEQ Regional Office

- Air Division
 - Office of Wetlands and Stream Protection
 - Office of Local Government Programs
 - Division of Land Protection and Revitalization
 - Office of Stormwater Management
 - Office of Environmental Justice
- Department of Conservation and Recreation
Department of Health
Department of Agriculture and Consumer Services
Department of Wildlife Resources
Virginia Marine Resources Commission
Department of Historic Resources
Virginia Energy
Department of Forestry
Department of Transportation

DATA BASE ASSISTANCE

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

- DEQ Online Database: Virginia Environmental Geographic Information Systems

Information on Permitted Solid Waste Management Facilities, Impaired Waters, Petroleum Releases, Registered Petroleum Facilities, Permitted Discharge (Virginia Pollution Discharge Elimination System Permits) Facilities, Resource Conservation and Recovery Act (RCRA) Sites, Water Monitoring Stations, National Wetlands Inventory:

- www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx

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

Virginia's coastal resource data and maps; coastal laws and policies; facts on coastal resource values; and direct links to collaborating agencies responsible for current data:

- <https://www.deq.virginia.gov/?splash=https%3a%2f%2fgaia.vcu.edu%2fportal%2fapps%2fsites%2f%23%2fgemsmaps&isexternal=true>

- MARCO Mid-Atlantic Ocean Data Portal

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

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

- DHR Data Sharing System.

Survey records in the DHR inventory:

- www.dhr.virginia.gov/archives/data_sharing_sys.htm
- DCR Natural Heritage Search

Produces lists of resources that occur in specific counties, watersheds or physiographic regions:
 - www.dcr.virginia.gov/natural_heritage/dbsearchtool.shtml
- Wetland Condition Assessment Tool (WetCAT)
 - <https://www.deq.virginia.gov/our-programs/water/wetlands-streams/wetcat>
- DWR Fish and Wildlife Information Service

Information about Virginia's Wildlife resources:
 - <http://vafwis.org/fwis/>
- Total Maximum Daily Loads Approved Reports
 - <https://www.deq.virginia.gov/programs/water/waterqualityinformationtmdls/tmdl/tmdldevelopment/approvedtmdlreports.aspx>
- Virginia Outdoors Foundation: Identify VOF-protected land
 - <http://vof.maps.arcgis.com/home/index.html>
- Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Database: Superfund Information Systems

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

Information on hazardous waste facilities:
 - www.epa.gov/enviro/facts/rcrainfo/search.html
- Total Maximum Daily Loads Approved Reports
 - <https://www.deq.virginia.gov/our-programs/water/water-quality/tmdl-development/approved-tmdls>
- EPA Envirofacts Database

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

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

If you have questions about the environmental review process, please feel free to contact me. I hope this information is helpful to you.

Sincerely,

A handwritten signature in black ink, appearing to read "Bettina Rayfield". The signature is fluid and cursive, with the first name "Bettina" and last name "Rayfield" clearly distinguishable.

Bettina Rayfield, Program Manager
Environmental Impact Review and Long Range Priorities
Virginia Department of Environmental Quality
804-659-1915
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Central Office
1111 E. Main Street, Suite 1400
Richmond, Virginia 23219
804-698-4000

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

Travis A. Voyles
Secretary of Natural and Historic
Resources

Jamie L. Green
Commissioner

July 10, 2024

Dominion Energy Services, Inc.
Attn: Stacey Ellis
120 Tredegar Street
Richmond, VA 23219

Re: Aquia Harbour to Possum Point Transmission Project

Dear Ms. Ellis:

This will respond to the request for comments regarding the State Corporation Commission (SCC) Project Notification for the Aquia Harbour to Possum Point Electric Transmission Project, prepared by Dominion Energy. Specifically, Dominion Energy has proposed to wreck and rebuild approximately 11.4 miles of existing transmission lines between the Aquia Harbour Switching Station and the Possum Point Substation in Stafford and Prince William Counties, Virginia. Dominion Energy has also proposed to wreck and rebuild approximately 0.7 miles of 230kV line between the Fredericksburg Substation and Hospital Junction in the City of Fredericksburg, Virginia.

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

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

Sincerely,

A handwritten signature in black ink that reads "Khadijah Payne".

Khadijah Payne
Environmental Engineer, Habitat Management

KP/dd

An Agency of the Natural and Historic Resources Secretariatwww.mrc.virginia.gov

Telephone (757) 247-2200 Information and Emergency Hotline 1-800-541-4646



Stantec Consulting Services Inc.

5209 Center Street
Williamsburg VA 23188-2680

July 26, 2024

Project/File: 203401909

Ms. Stacey Ellis

Dominion Environmental & Sustainability
120 Tredegar Street
Richmond, VA 23219

Dear Ms. Ellis,

Reference: Desktop Wetland Review
Aquia Harbour – Possum Point Lines #29, #252, #2083, & #568 Rebuild
Stafford and Prince William Counties and the City of Fredericksburg, Virginia

The following report presents the results of a desktop wetland review conducted by Stantec Consulting Services Inc. (Stantec) for the Aquia Harbour – Possum Point Lines #29, #252, #2083, and #568 Rebuild Project from the Aquia Harbour substation in Stafford County to the Possum Point substation in Prince William County, Virginia (Figure 1) and the Fredericksburg Substation to Hospital Junction in the City of Fredericksburg, Virginia (Figure 2). The Lines #29, #252, & #568 project area (approximately 340.72 acres) consists primarily of an existing, variable width transmission line ROW beginning at the Aquia Harbour substation, east of Aquia Drive in Stafford County, Virginia, and extending approximately 12.70 miles north and east to the Possum Point substation, southeast of Possum Point Road in Prince William County, Virginia. The project area begins at approximately 38.450474, -77.387478 and terminates at 38.538793, -77.279756. The Line #2083 project area (approximately 25.28 acres) consists of 235-foot-wide transmission ROW beginning at the Fredericksburg Substation, north of Powhatan Street, and extending approximately 0.7 miles north to Hospital Junction, north of Mary Washington Boulevard in the City of Fredericksburg, Virginia. The project area begins at approximately 38.304971, -77.483530 and terminates at 38.313458, -77.483402. Line #29, #252, #2083, and #568 project areas constitute the "Rebuild Project". Please note that a desktop review was previously prepared for the Line #29 and #2157 right-of-way (ROW) in March 2024 which included the 0.7 mile of Line #2083 subject to this review. These data are presented separately within Figure 2 and Tables 2 and 4; however, the memo will discuss the methodologies and characteristics of the Rebuild Project area as a whole.

The purpose of this study is to determine the approximate location and extent of areas that have the potential of containing jurisdictional wetlands and other surface waters using available off-site resources. Due to the preliminary nature of this study, the field methods outlined in the *1987 Corps of Engineers Delineation Manual* and the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (version 2.0)* were not applied to determine the limits of wetlands and other water features on site. Rather, U.S. Geological Survey (USGS) Quadrangle Maps, current and historical web-based aerial imagery, wetland photo interpretation techniques, soil surveys, and the National Wetlands Inventory (NWI) were used to ascertain the approximate limits of wetlands and other surface waters. For an evaluation of this type, the dimensions of these features are difficult to determine using even the highest resolution and most recent off-site reference materials. Large floodplains containing broad, flat topography can be assessed fairly accurately using aerial photography.

July 26, 2024
Ms. Stacey Ellis
Page 2 of 5

Reference: Aquia Harbour – Possum Point Lines #29, #252, #2083, & #568 Rebuild: Desktop Wetland Review

However, smaller secondary drainages containing lower order streams and headwater wetlands are more difficult to evaluate and could contain a high degree of deviation when compared to field conditions. Therefore, all site conditions predicted as a part of this analysis and in the mapping provided are considered preliminary, and without site reconnaissance should only be utilized for early-stage planning purposes.

Multiple off-site resources were reviewed to determine areas that have the potential to contain jurisdictional wetlands or other surface waters within the Rebuild Project areas described above. These materials include the U.S. Geological Survey 7.5-minute Topographic Quadrangle Maps (Quads) for Stafford, Virginia (1994); Widewater, Virginia (1982); Quantico, Virginia (1983); Fredericksburg, Virginia (1994); the NWI, administered by the U.S. Fish and Wildlife Service (USFWS); the SSURGO Soils Survey, administered by the Natural Resources Conservation Service (NRCS); and web-based aerial images.

USGS Quads

The Quads depict most of the Rebuild Project area as an existing transmission line ROW traversing through gentle to steeply sloping terrain. Aquia Creek, Chopawamsic Creek, Little Creek, and Quantico Creek are depicted within the Rebuild Project areas along with numerous other unnamed perennial and intermittent streams.

NWI Maps

The NWI maps administered by USFWS are useful in the identification of potential wetland areas. The maps are compiled through photo interpretation techniques with limited field verification. Large floodplain and regularly inundated wetlands are easily illustrated and are often mapped with reasonable accuracy, while certain forested wetlands (e.g., seasonally saturated, groundwater driven, and evergreen dominated) and other drier-end wetlands tend to be either conservatively mapped or not shown at all.

The NWI maps depict multiple freshwater forested/shrub wetlands, freshwater emergent wetlands, freshwater ponds, estuarine emergent wetlands, and riverine and estuarine systems within the Rebuild Project areas. It should be noted that most wetlands within the Rebuild Project areas are presumed to be scrub-shrub or emergent due to regular maintenance of the ROW. The NWI identifies wetlands within the proposed Rebuild Project areas as either palustrine or estuarine. Palustrine wetlands include all non-tidal wetlands and wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.05%. Estuarine wetlands include all tidal wetlands where salinity due to ocean derived salts is at or above 0.05%. Most wetlands within the Rebuild Project areas are classified as non-tidal, however, some of the palustrine wetlands associated with Aquia Creek and Quantico Creek are classified by the NWI as seasonally flooded fresh tidal wetlands.

Digital Aerial Imagery

Web-based aerial images of the Rebuild Project areas were reviewed to determine the approximate location and extent of areas that have the potential of containing jurisdictional wetlands and other surface waters. Historical and current aerial imagery can be compared across seasons and year-over-year to determine the potential occurrence of jurisdictional features. Seasonal variations in deciduous vegetation and the presence of stream channels, as well as inundated or saturated areas were all evaluated for their resource potential.

Reference: Aquia Harbour – Possum Point Lines #29, #252, #2083, & #568 Rebuild: Desktop Wetland Review

Based on this review of current and historical digital aerial imagery, jurisdictional features are likely present at most Quad mapped stream crossings, NWI mapped wetland features, and are potentially present in some of the secondary drainage features within the Lines #29, #252, and #568 project area, as shown on the attached Wetland and Surface Water Desktop Analysis Maps (Figure 1).

Soil Survey

The NRCS Web Soil Survey shows numerous soil types within the Rebuild Project area. For the purpose of this report, the location of hydric and partially hydric soils is of particular interest, as areas mapped with these soils generally have a high potential to contain jurisdictional features. It should be noted that areas mapped with non-hydric soils could also contain jurisdictional features.

A significant portion of the soils mapped within the study area are classified by the NRCS as non-hydric or predominately non-hydric. The hydric soils present include Alluvial land, wet; Bibb fine sandy loam; Bladen loam; Cartecay fine sandy loam; Featherstone mucky silt loam; Fresh water swamp; Hatboro-Codorus complex; Roanoke silt loam; Tidal marsh; and Wehadkee very fine sandy loam. The partially hydric soils listed within the project area are Augusta loam, Congaree loam, Craven loam, Delanco fine sandy loam, Iuka fine sandy loam, Louisburg sandy loam, Tetotum fine sandy loam, Dystrudepts-Udults complex, Udorthents-Udifluvents complex, and Wickham loam.

Results

The following table presents a summary of potential jurisdictional features based on the desktop wetland review for the project. These features are shown on the attached Wetland and Surface Water Desktop Analysis Maps (Figures 1 and 2). As discussed above, most wetland features present within the Rebuild Project would likely be classified in the field as palustrine emergent (PEM) or scrub shrub (PSS) due to regular maintenance within the ROW. However, it should be noted that the distinction between emergent wetlands and scrub-shrub wetlands is often very difficult to ascertain using even the highest resolution aerial images and have been combined for the purposes of this analysis. Additionally, there are a few areas where the Lines #29, #252, and #568 project limits extend beyond the maintained ROW and desktop resources suggest potential palustrine forested (PFO) wetlands.

Table 1, Lines #29, #252, and #568

PEM/PSS Non-Tidal (Acres)	PEM/PSS Tidal (Acres)	PFO Non-Tidal (Acres)	Stream Channels Acres (LF)	Tidal Water Acres (LF)	Open Water Non-tidal Acres
53.24	11.84	0.19	1.62 (14,191)	12.45 (2,949)	0.50

Table 2, Line #2083

PEM/PSS Non-Tidal (Acres)	Stream Channels Acres (LF)	Open Water Non-tidal Acres
0.95	0.11 (1,151)	0.29

In addition, the probability of wetland occurrence was determined based upon the number of off-site resources giving a positive indication within a given area. The off-site resources considered for this probability analysis include current and historical aerial imagery, NWI mapping, hydric soil data, and

Reference: Aquia Harbour – Possum Point Lines #29, #252, #2083, & #568 Rebuild: Desktop Wetland Review

Quad mapping/topography. The probability was determined as follows and results are summarized in the table below:

- High probability: Areas that demonstrate positive indicators for potential wetlands on all four of the above-mentioned off-site resources.
- Medium probability: Areas that demonstrate positive indicators for potential wetlands on two or three of the above-mentioned off-site resources.
- Low probability: Areas that demonstrate positive indicators for potential wetlands on one of the above-mentioned off-site resources.

Table 3, Lines #29, #252, and #568

High Probability PEM/PSS Non-Tidal (acres)	High Probability PEM/PSS Tidal (acres)	Medium Probability PEM/PSS Non-Tidal (acres)	Medium Probability PEM/PSS Tidal (acres)	Low Probability PEM/PSS Non-Tidal (acres)	Low Probability PFO Non-Tidal (acres)
15.95	9.84	22.07	2.00	15.22	0.19

Table 4, Line #2083

Medium Probability PEM/PSS Non-Tidal (acres)	Low Probability PEM/PSS Non-Tidal (acres)
0.72	0.23

Conclusion

Based on Stantec's interpretation of the above-mentioned off-site resources, the potential exists for jurisdictional features to occur in association with all major drainage features (including floodplains), and secondary drainages within the Rebuild Project area.

In order to verify the findings described in this report, Stantec recommends a detailed delineation of wetlands and surface waters be performed within the final, approved Rebuild Project areas followed by confirmation by the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality, if necessary.

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

July 26, 2024
Ms. Stacey Ellis
Page 5 of 5

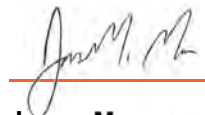
Reference: Aquia Harbour – Possum Point Lines #29, #252, #2083, & #568 Rebuild: Desktop Wetland Review

Regards,

STANTEC CONSULTING SERVICES INC.

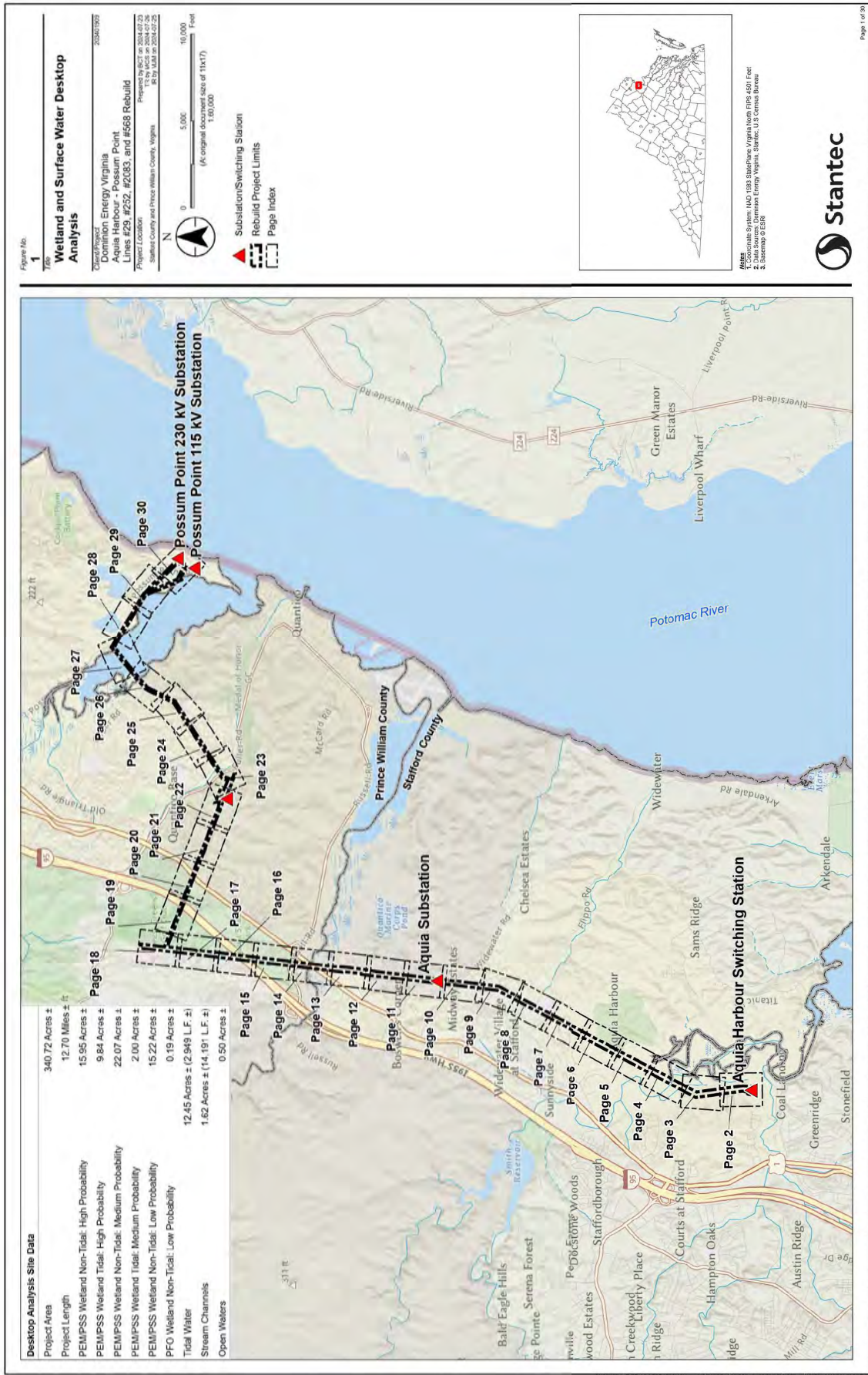


Mack McGraw
Ecologist
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Mack.mcgraw@stantec.com

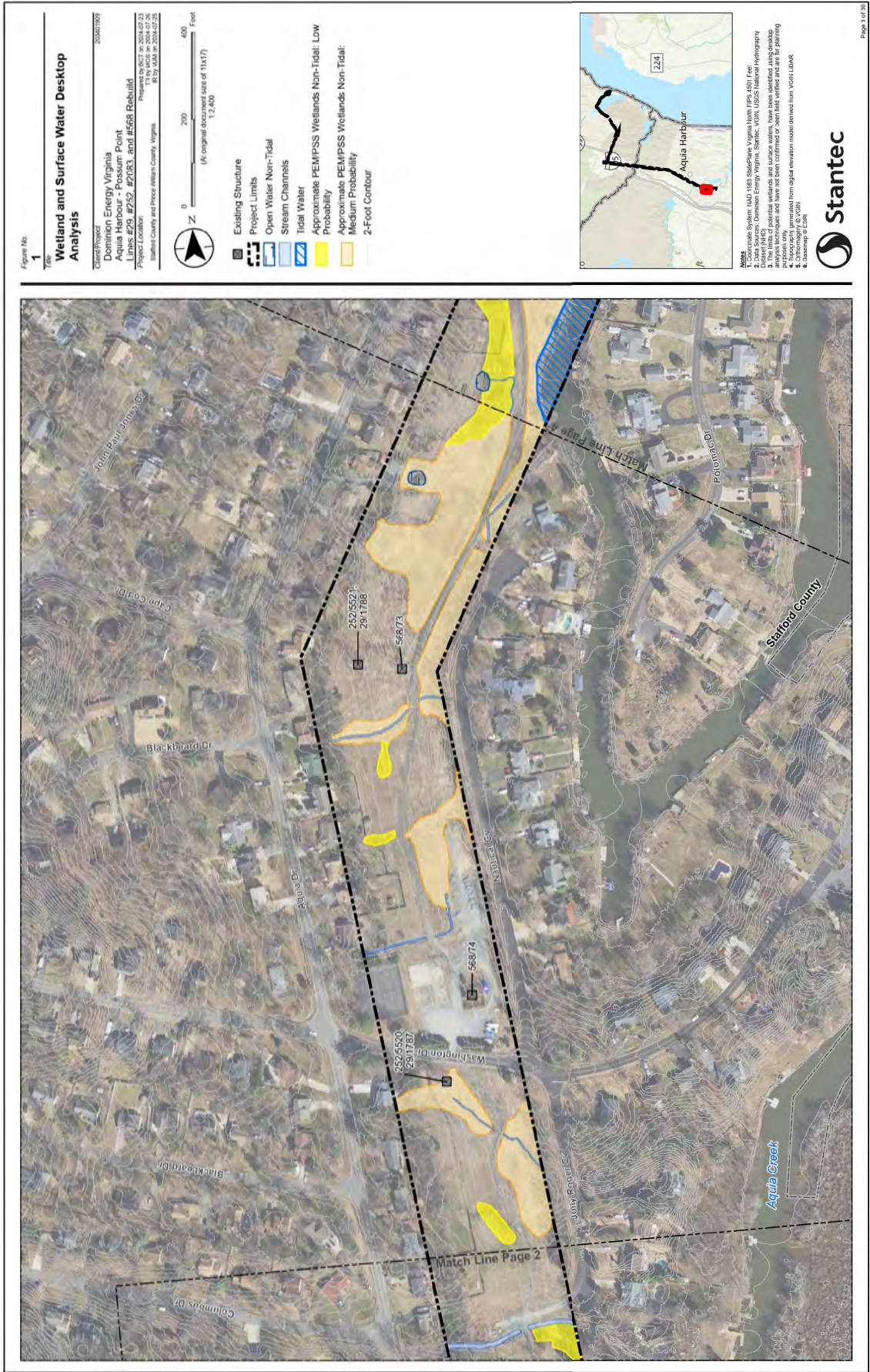


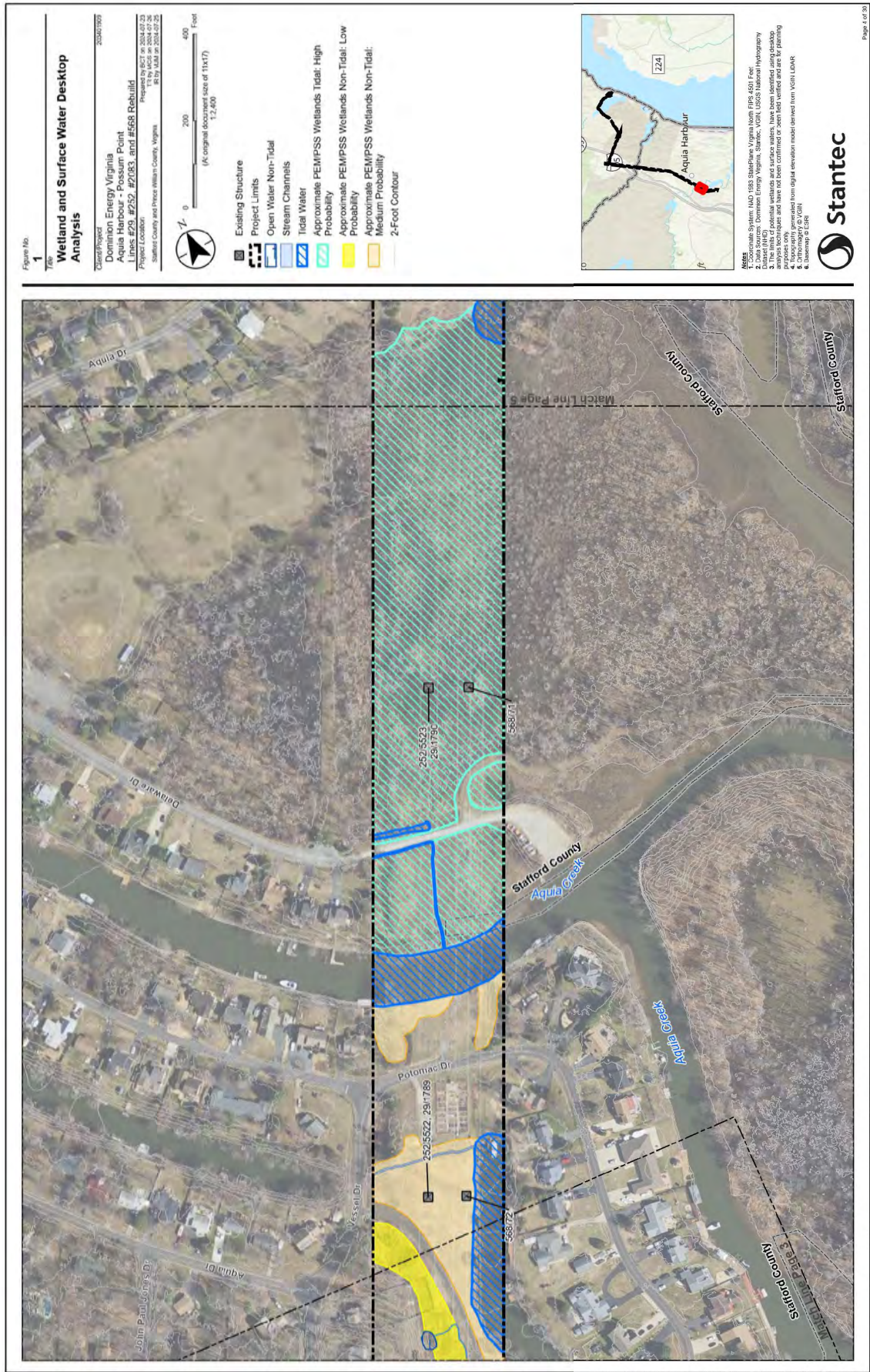
Jason Mann
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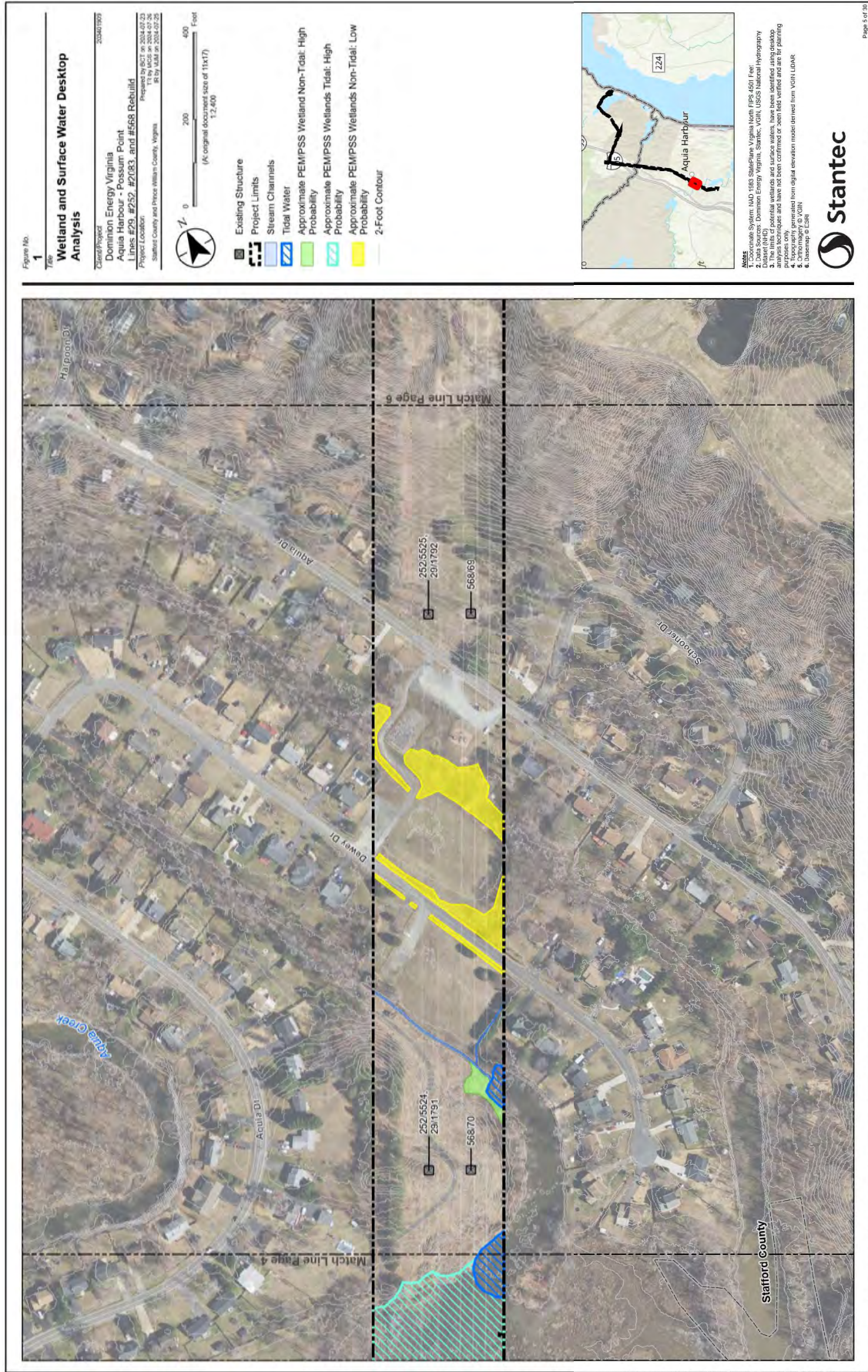
Attachment: Figure 1, Wetland and Surface Water Desktop Analysis
Figure 2, Wetland and Surface Water Desktop Analysis

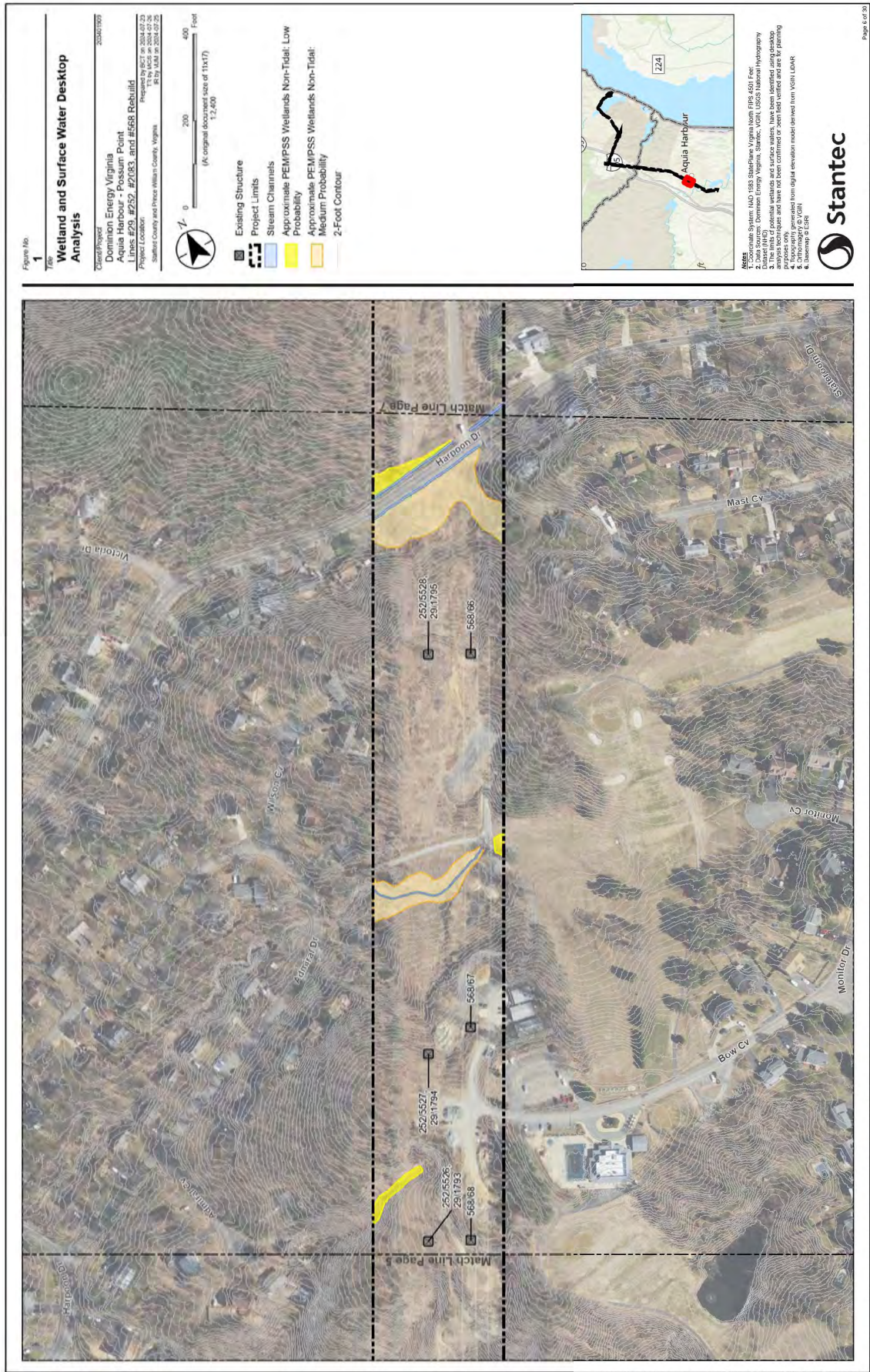


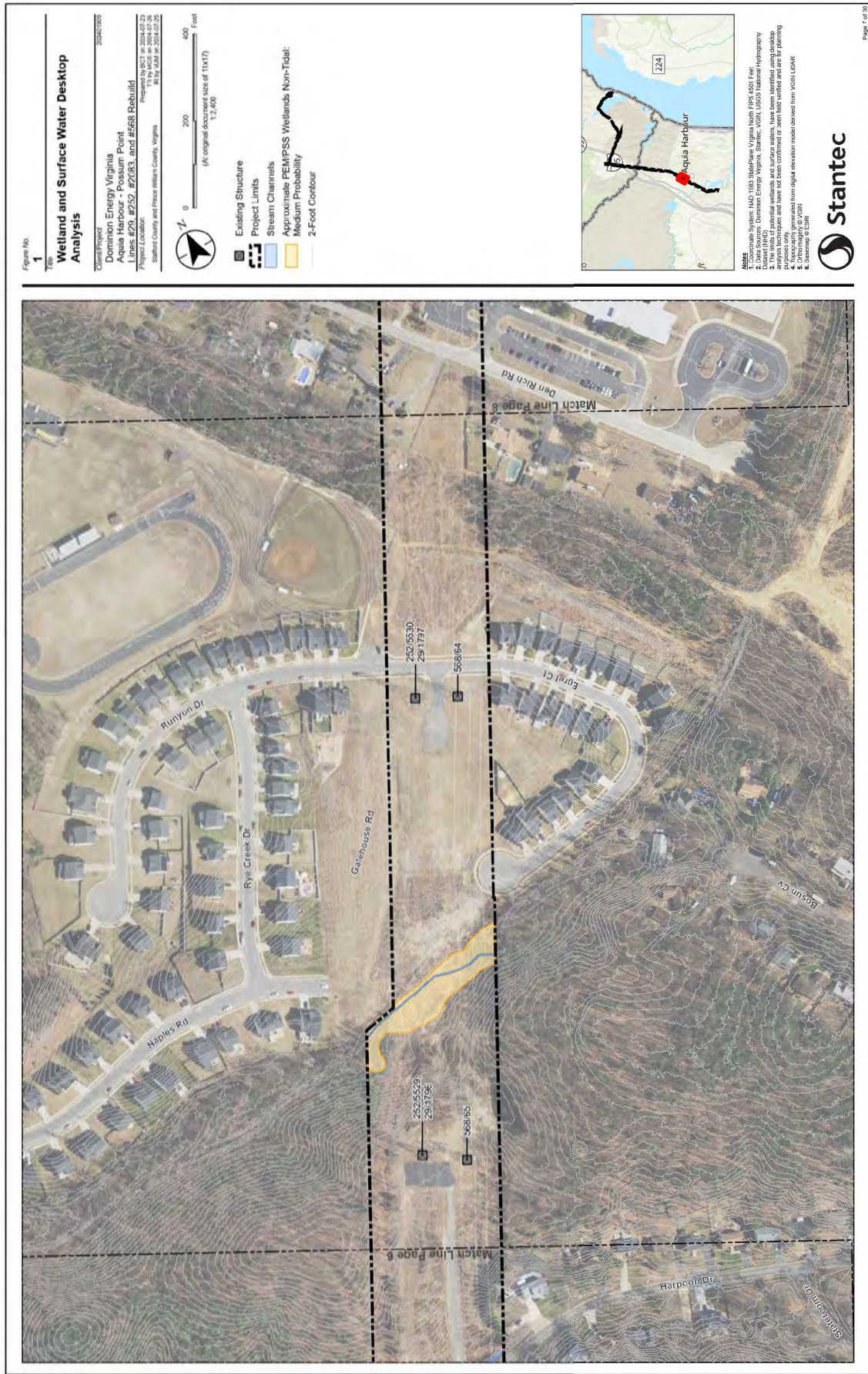


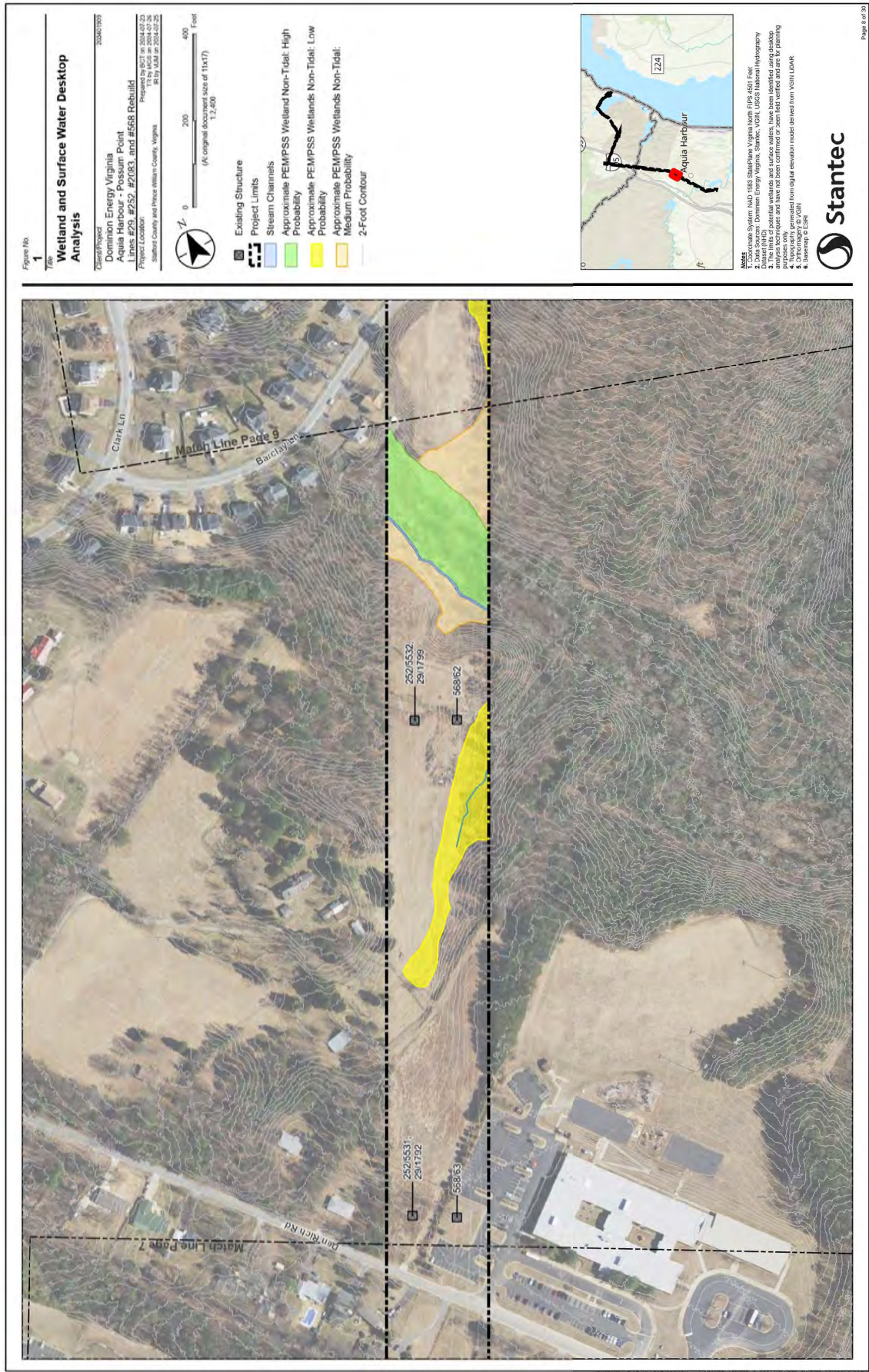


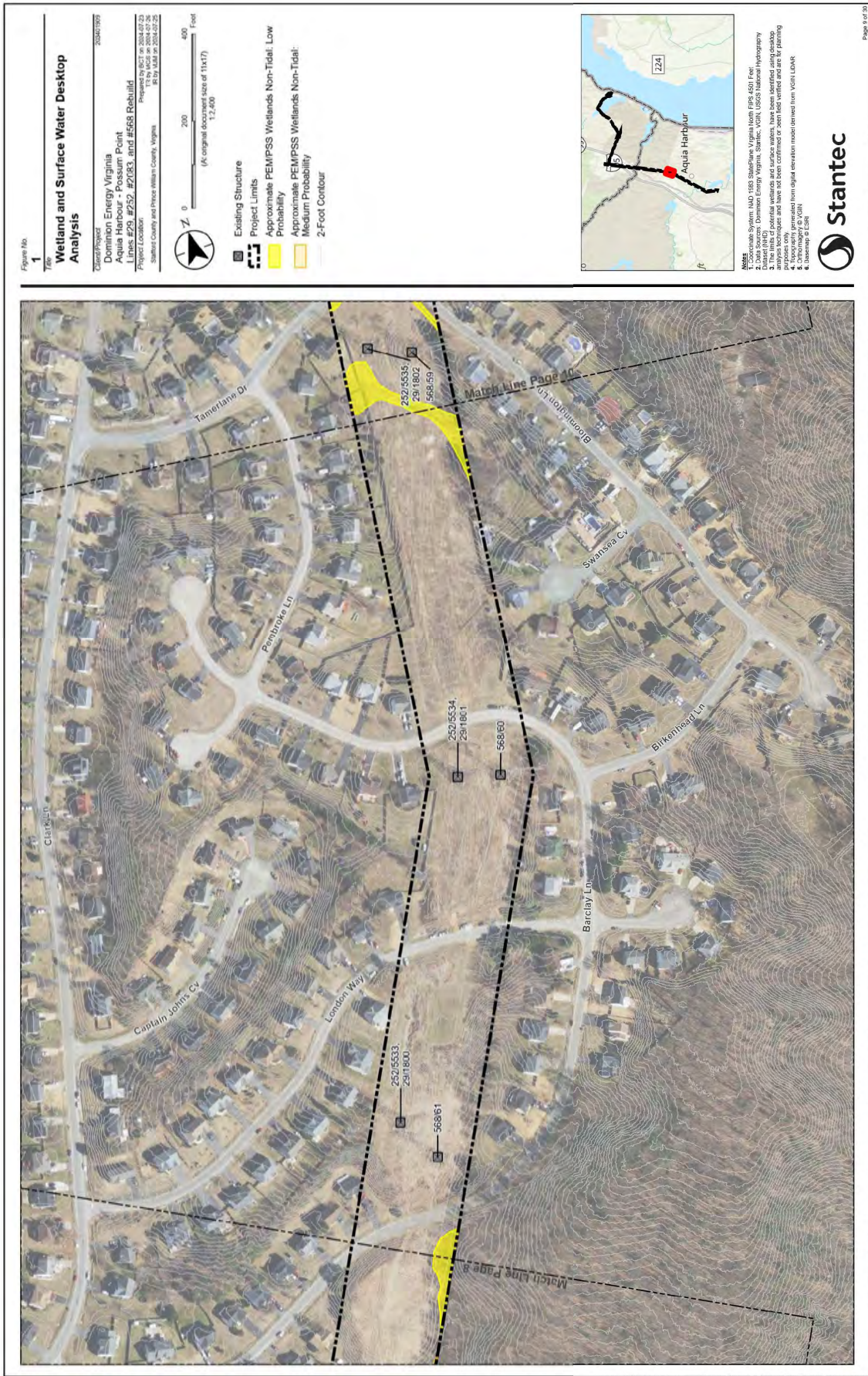


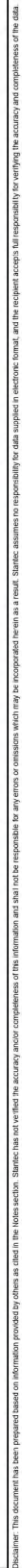










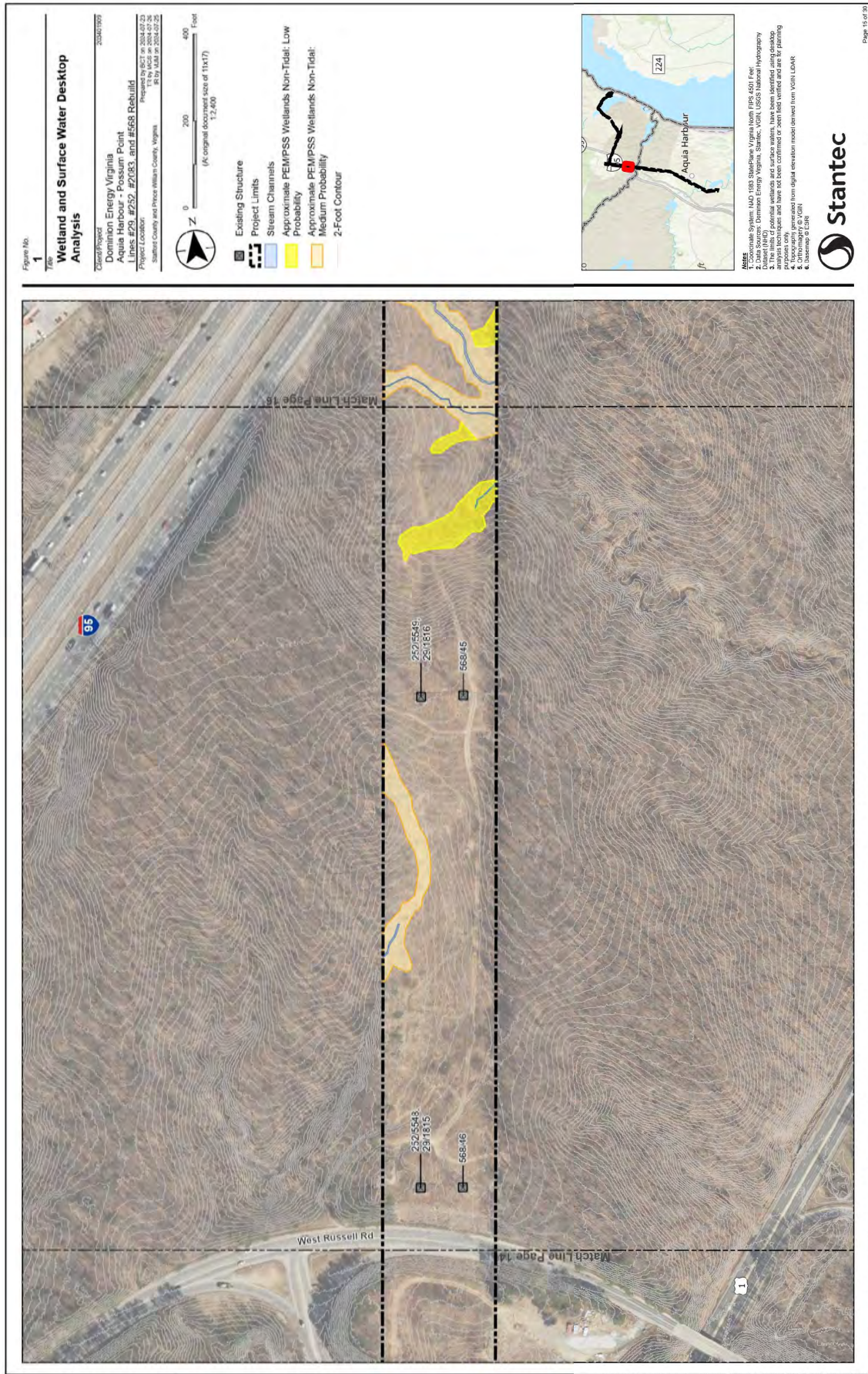




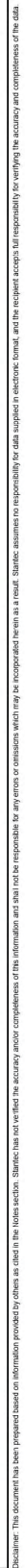


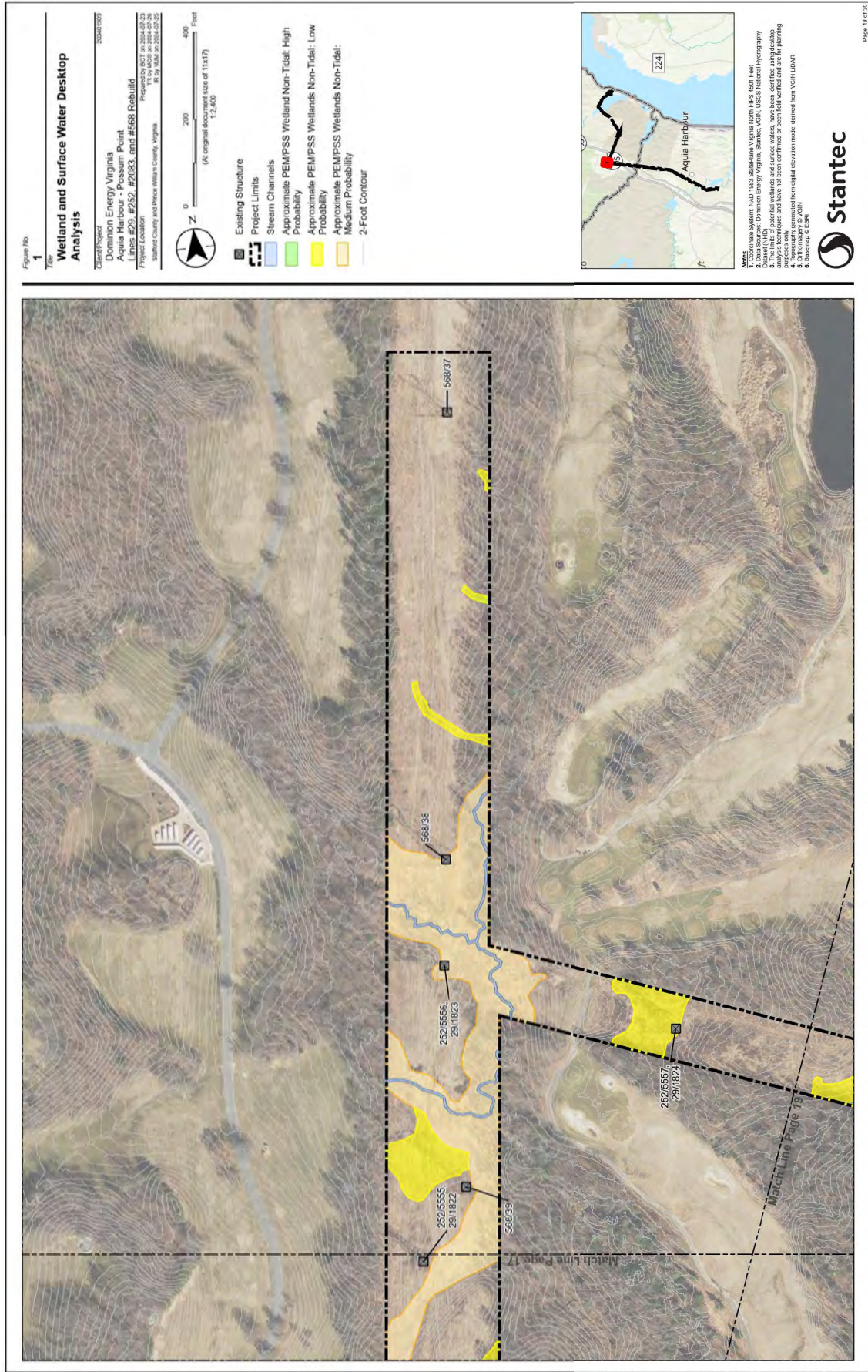


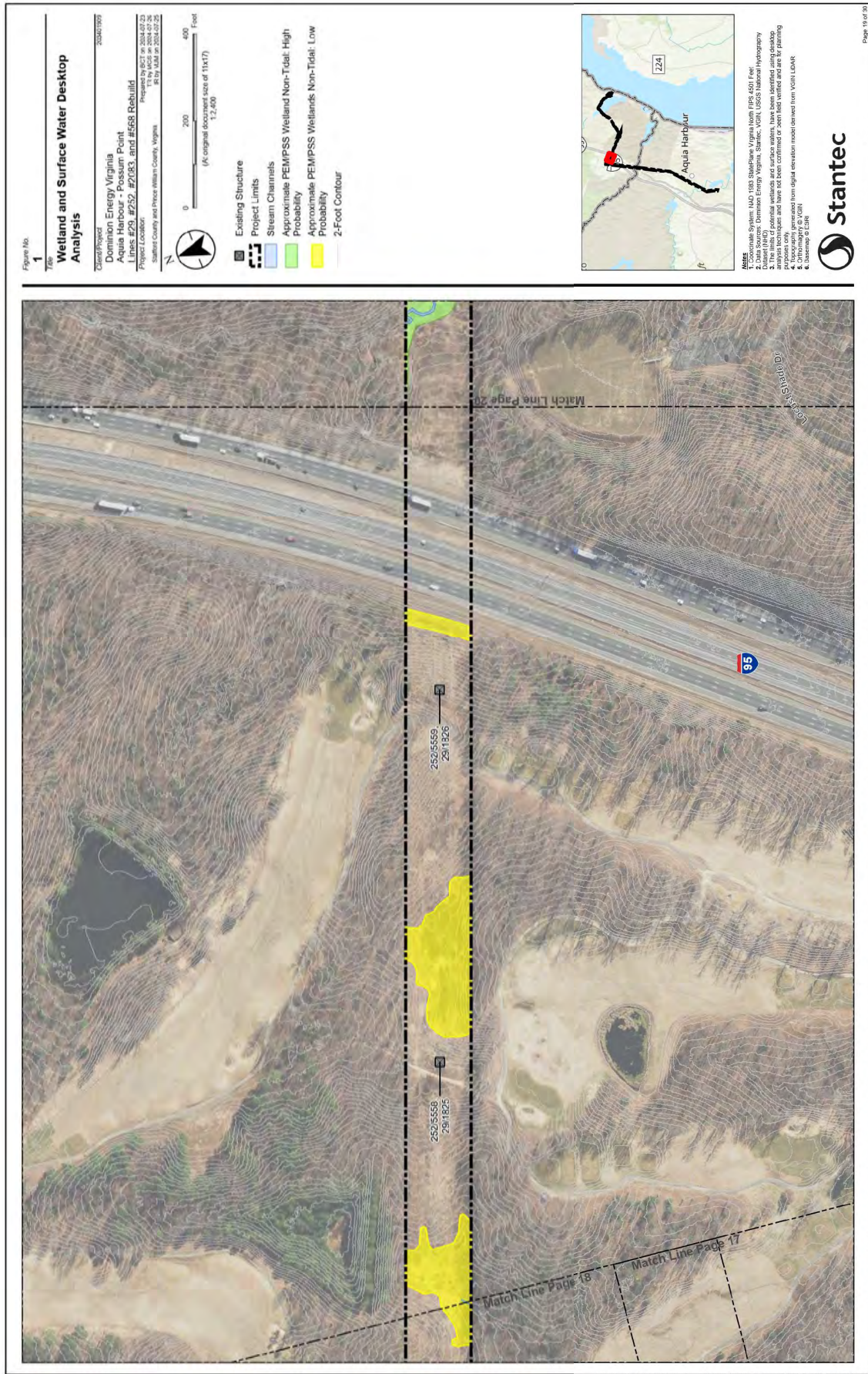




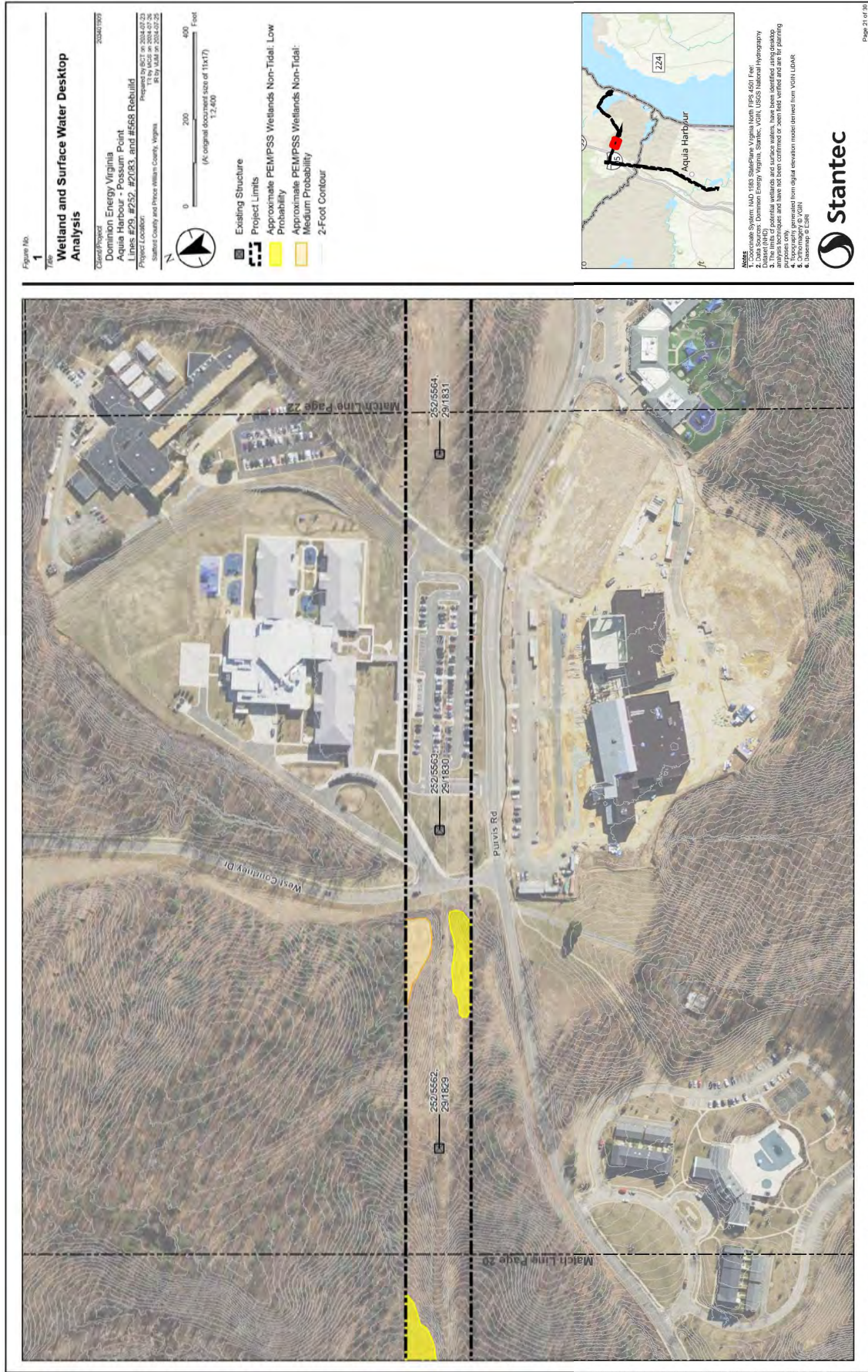


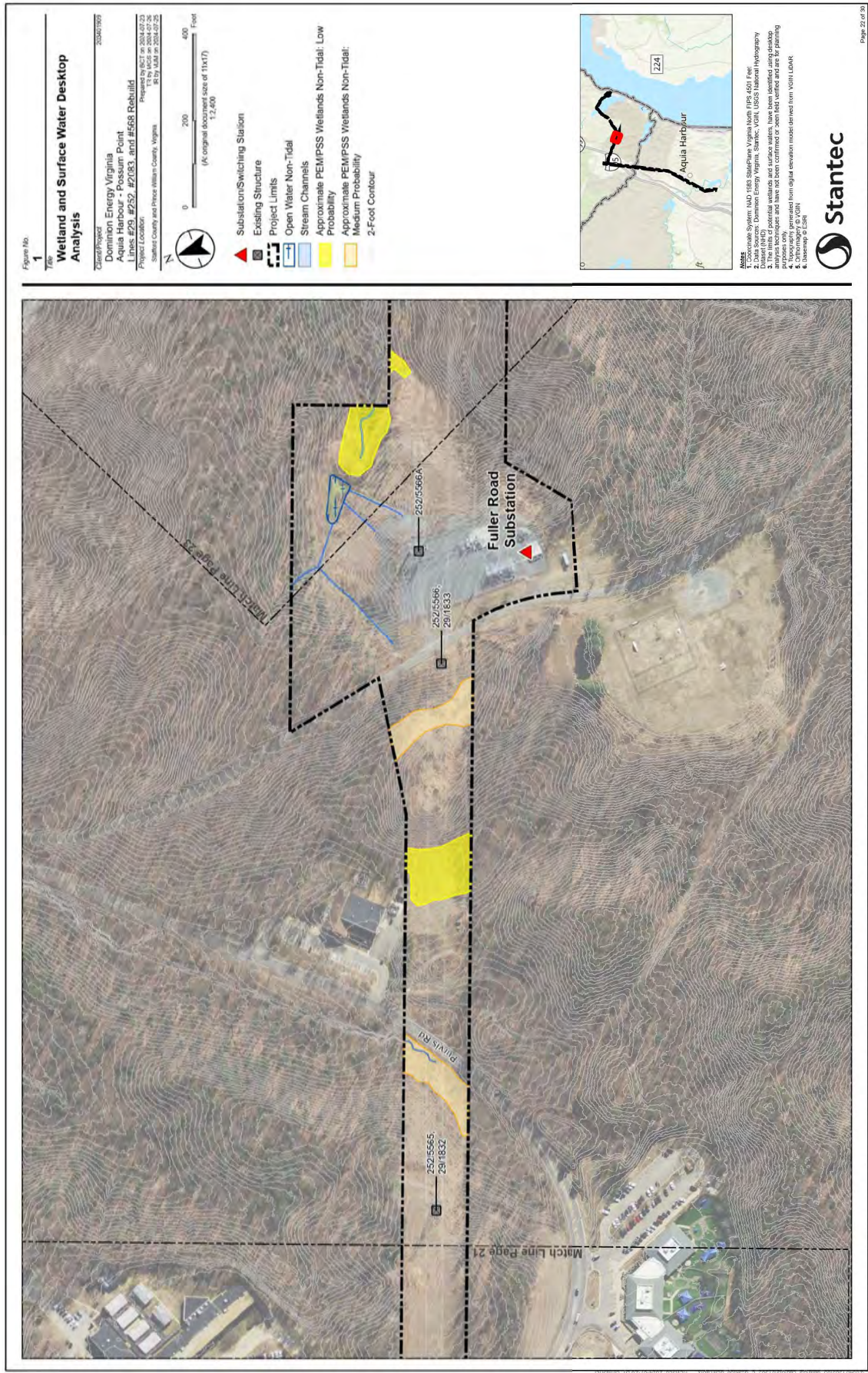


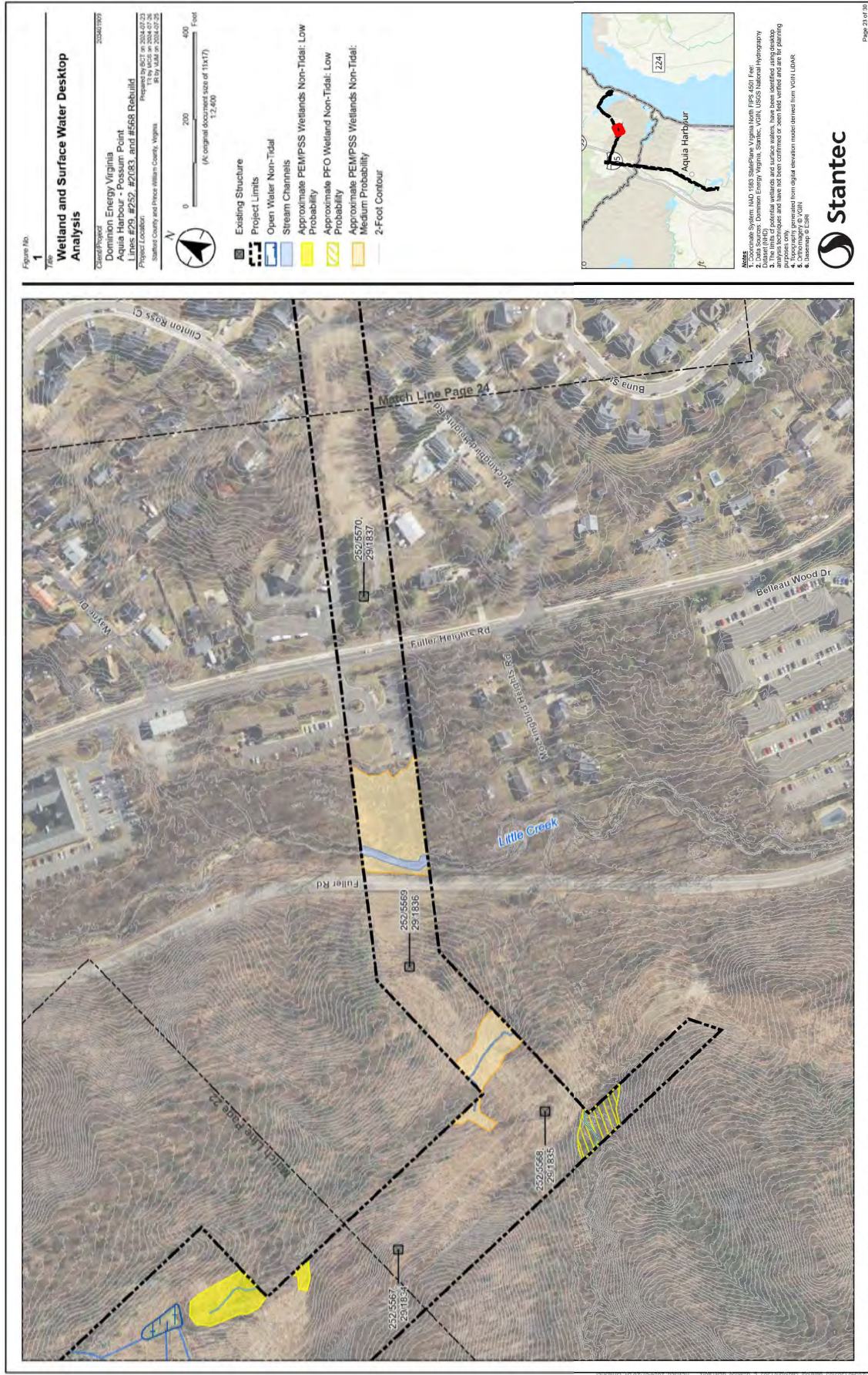


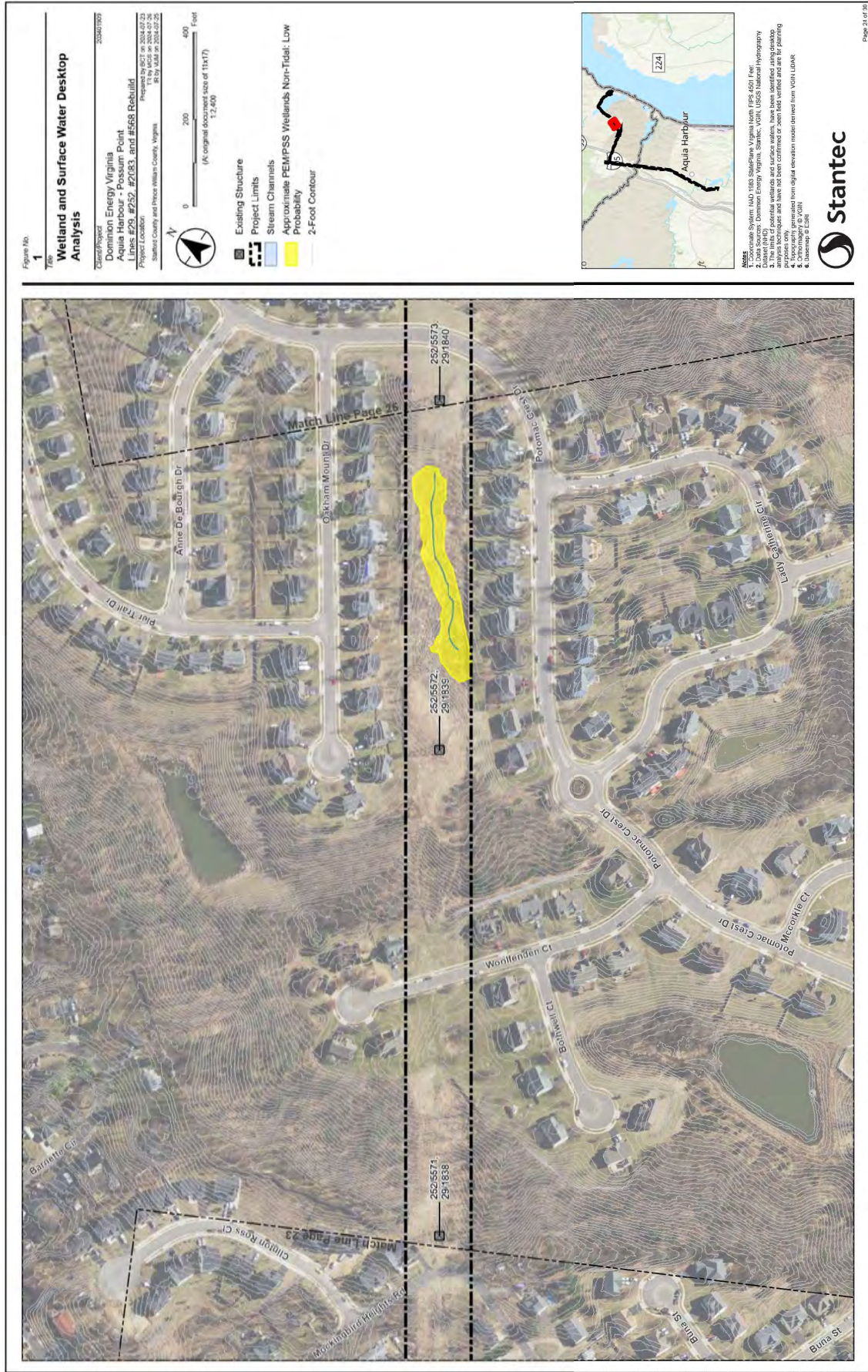


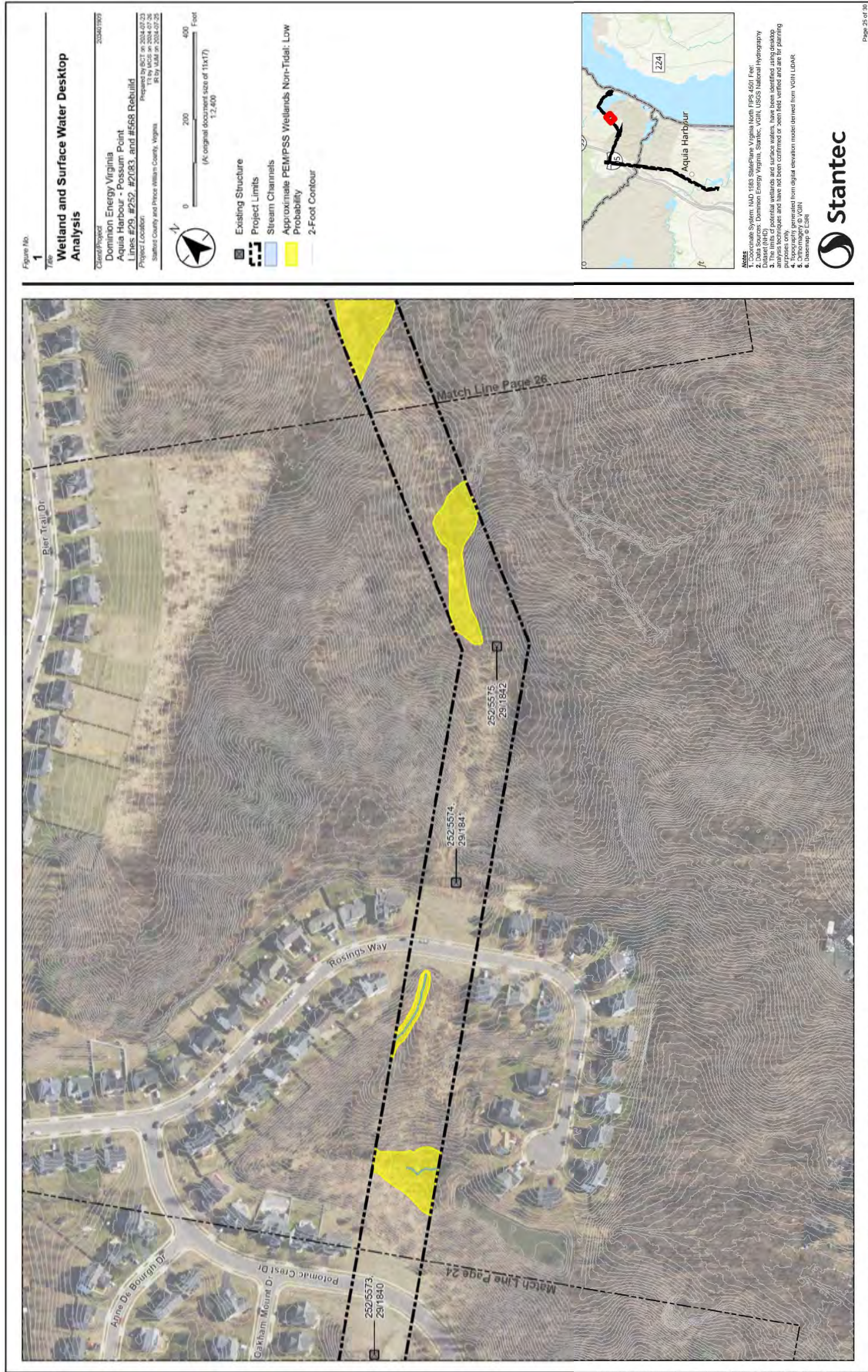


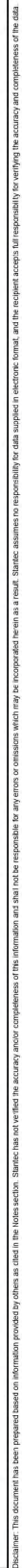


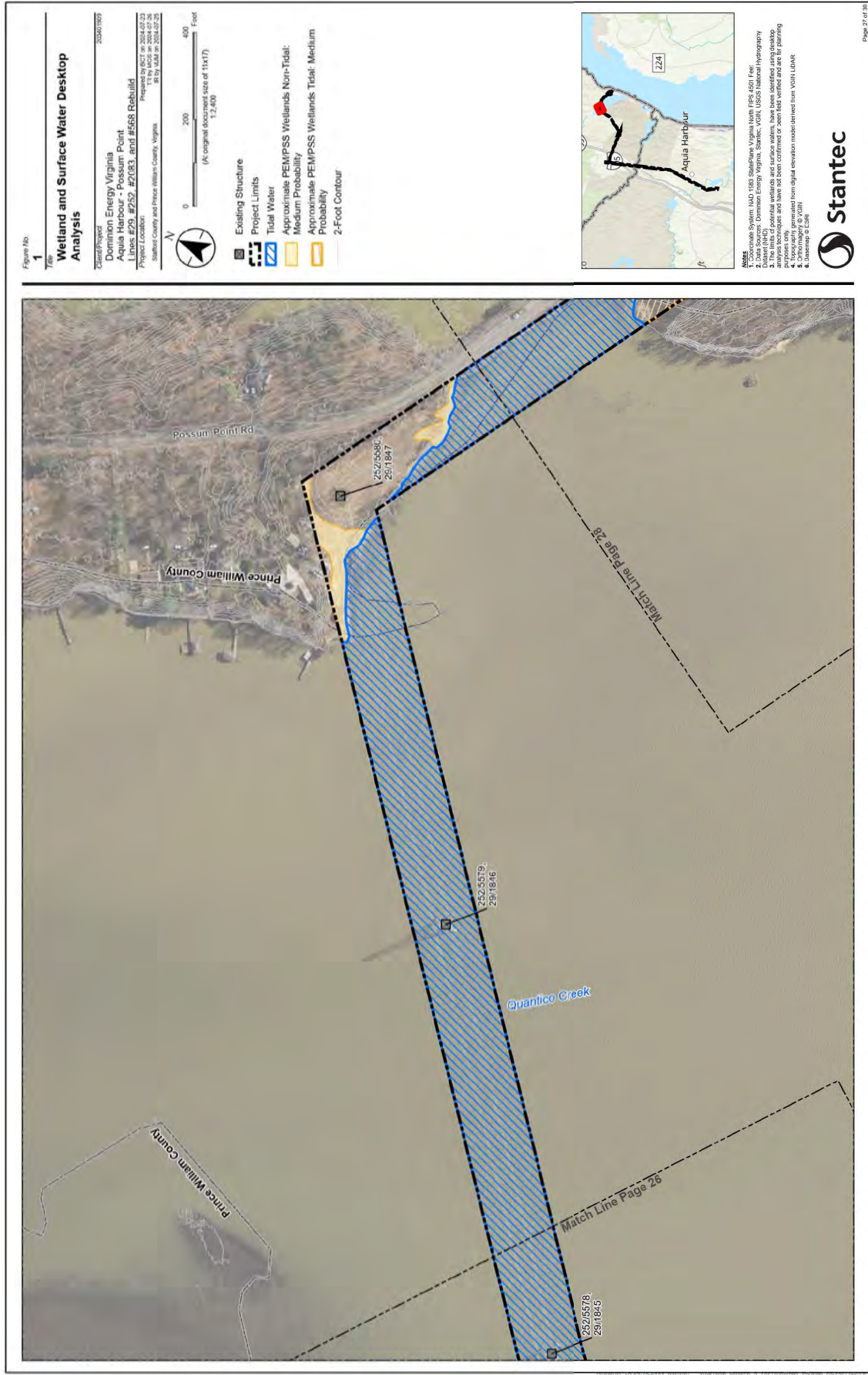


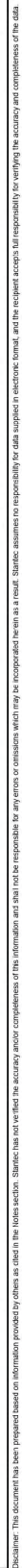




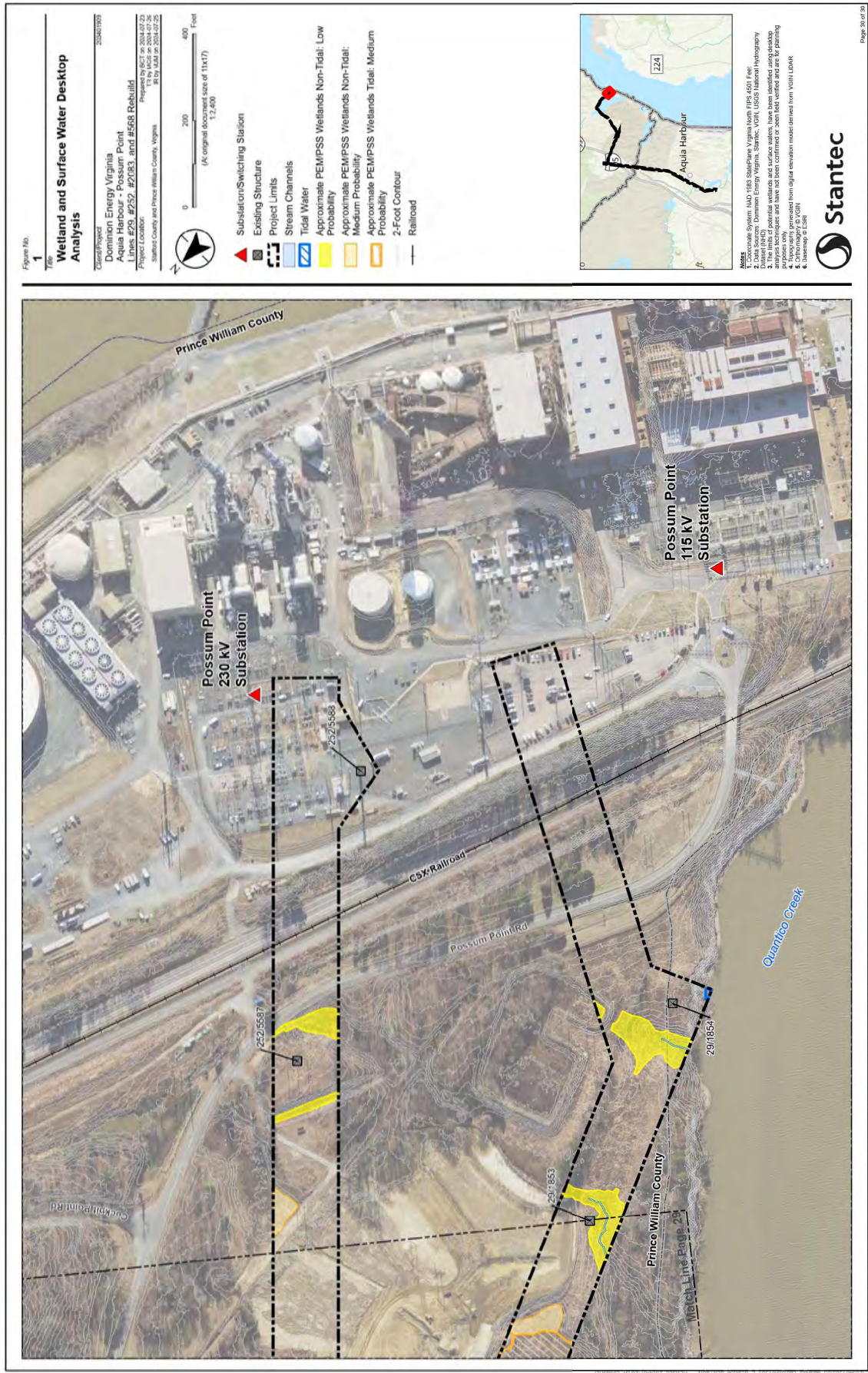


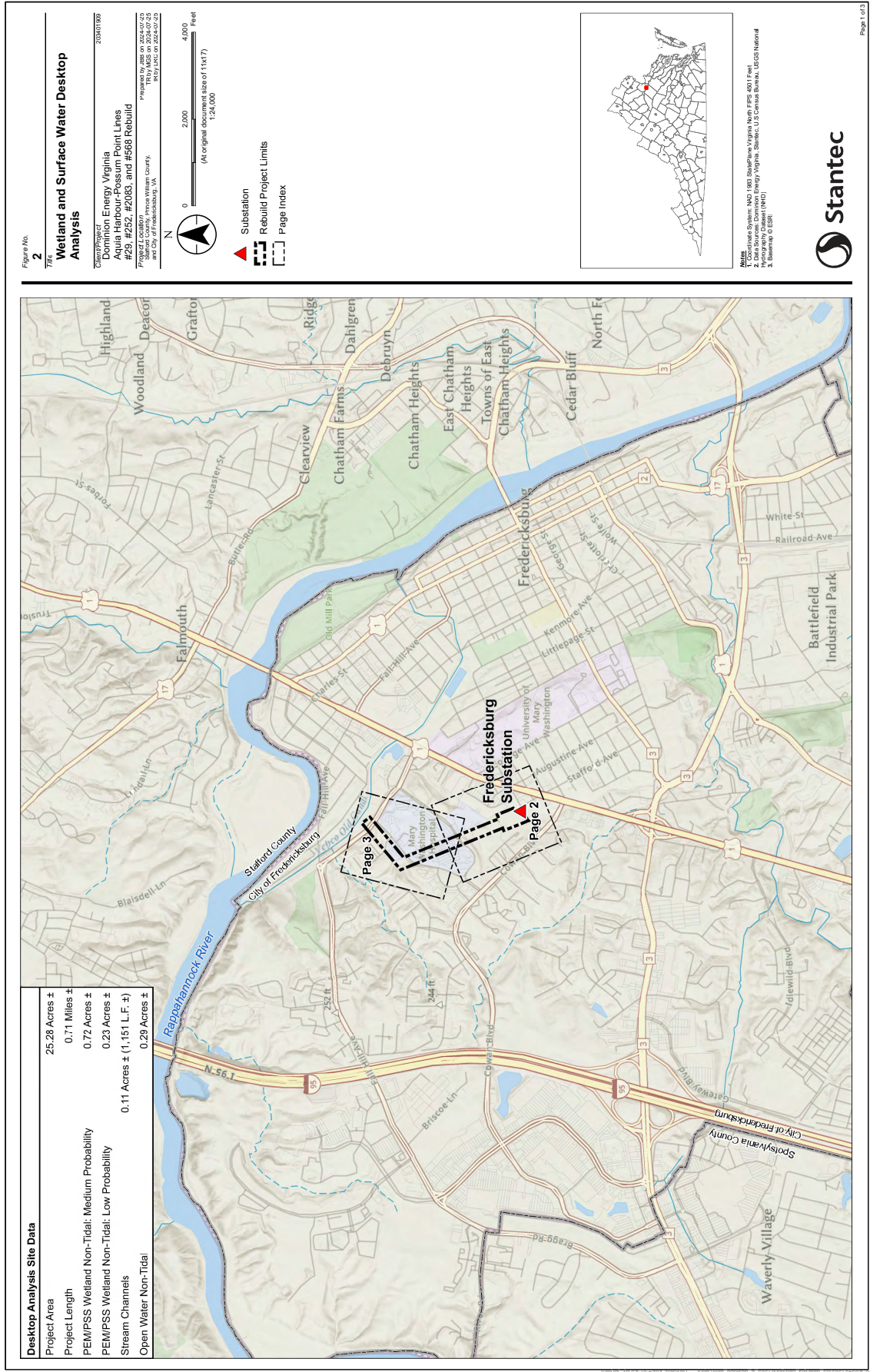












Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions. Stantec disclaims any responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure No.
2

**Wetland and Surface Water Desktop
Analysis**

Client: Dominion Energy Virginia
Project: Aquia Harbour-Possom Point Lines
#29, #252, #2083, and #568 Rebuild
Prepared by: JMS on 2024/07/26
Reviewed by: JMS on 2024/07/26
City of Fredericksburg, Virginia



- Existing Structure
- Substation
- Rebuild Project Limits
- Approximate PELMPSS Wetland Non-Tidal: Low Probability
- Approximate PELMPSS Wetland Non-Tidal: Medium Probability
- Non-Tidal Stream Channel
- 2-Foot Contour



NOTES

1. Data Source: USGS National Wetlands Inventory, PPS 4521 Feet
2. Data Source: Dominion Energy Virginia, Staerck, VA, VA
3. This limits of potential wetlands of the U.S., including wetlands, have been identified using the National Wetlands Inventory (NWI) data. The NWI data is derived from aerial photography and field data.
4. The NWI data is derived from aerial photography and field data.
5. Contourmap © USGS
6. Staerckmap © USGS





*Commonwealth of Virginia**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY*www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director

July 22, 2024

Stacey T. Ellis
Dominion Energy and Sustainability
120 Tredegar Street
Richmond, VA 23219

Dear Ms. Ellis,

In accordance with the Department of Environmental Quality-State Corporation Commission *Memorandum of Agreement Regarding Wetland Impact Consultation* (July 2003), we have reviewed the information submitted by Dominion Energy Virginia. Dominion is proposing to wreck and rebuild approximately 11.4 miles of existing transmission lines, Lines #29, #252, and #568, primarily within existing right-of-way, between the Aquia Harbour Switching Station and the Possum Point Substation in Stafford and Prince William Counties. Line #29, which currently operates at 115 kV, will be uprated to 230 kV standards. Lines #29 and #252 will be primarily rebuilt on double circuit monopole structures utilizing current 230 kV standards. Line #568 is a 500 kV line that will be rebuilt on single circuit monopole structures. Additionally, the Company proposes to wreck and rebuild 0.7 mile of 230 kV Line #2083 on double circuit monopole structures (with vacant arms for future circuits) between the Fredericksburg Substation and Hospital Junction in the City of Fredericksburg. A small section of new right-of-way will be required near the Fuller Road Substation, which is located entirely within Marine Corps Base Quantico. Collectively, this work is referred to as the "Rebuild Project." The Rebuild Project is needed to maintain the structural integrity and reliability of the networked transmission system.

Summary of Findings

A jurisdictional wetland and waters delineation has not been conducted; however, a desktop wetland review was completed. A field delineation will be conducted, and a preliminary jurisdictional determination request will be made to the U.S. Army Corps of Engineers along with the submission of a Joint Permit Application for the Rebuild Project. Table 1 presents the approximate extents of potential jurisdictional features based on the desktop wetland review for the Rebuild Project right-of-way.

Table 1. Potential Jurisdictional Features within Rebuild Project Corridor

Resource Type	Probability			Total
	Low	Medium	High	
Palustrine Emergent and Scrub/Shrub Wetlands – Non-Tidal	9.07 Acres	20.01 Acres	26.06 Acres	55.14 Acres
Palustrine Emergent and Scrub/Shrub Wetlands – Tidal	N/A	N/A	11.79 Acres	11.79 Acres
Forested Wetlands	0.19 Acres	N/A	N/A	0.19 Acres
Tidal Water	N/A	N/A	12.91 Acres	12.91 Acres
Open Water Non-tidal	N/A	N/A	0.49 Acres	0.49 Acres
Stream	N/A	N/A	1.62 Acres	1.62 Acres

Water Quality and Wetlands. The disturbance of land and surface waters, which include wetlands, open water, and streams, may require prior approval by the Virginia Department of Environmental Quality (DEQ); the U.S. Army Corps of Engineers (USACE); the Virginia Marine Resources Commission (VMRC); and/or local government wetlands boards (generally in the northern and piedmont regions of Virginia). Measures such as but not limited to Best Management Practices (BMPs) must be taken to first avoid and minimize impacts to surface waters during construction activities, including potential water quality impacts resulting from construction site runoff. Unavoidable impacts may require compensatory mitigation.

The USACE and DEQ work in conjunction to provide official confirmation of whether there are federal and/or state jurisdictional surface waters that may be impacted by the proposed project. DEQ may confirm additional waters as jurisdictional beyond those under federal authority. VMRC provides its own review to determine its agency jurisdiction. Review of National Wetland Inventory maps or topographic maps for locating wetlands, open waters, or streams may not be sufficient; there may need to be a site-specific review by a qualified professional.

If construction activities will occur in or along any streams (perennial, intermittent, or ephemeral), open water, or wetlands, the applicant should contact the DEQ-VWP manager at the DEQ regional office closest to the project location (<https://www.deq.virginia.gov/get-involved/about-us/contact-us>) to determine the need for any permits prior to commencing work that could impact surface waters. Even if

there will be no intentional placement of fill material in jurisdictional waters, potential water quality impacts resulting from construction site surface runoff must be minimized. This can be achieved by using BMPs. DEQ's permit need decisions neither replace nor supersede requirements set forth by other local, state, federal, and tribal laws, nor eliminate the need to obtain additional permits, approvals, consultations, or authorizations as required by law before proposed activities may commence.

Erosion and Sediment Control and Storm Water Management. DEQ has regulatory authority for the Virginia Pollutant Discharge Elimination System (VPDES) programs related to municipal separate storm sewer systems (MS4s) and construction activities. Erosion and sediment control (ESC) measures are addressed in local ordinances and State regulations. Additional information is available at <https://www.deq.virginia.gov/permits/water/stormwater-construction>. Non-point source pollution resulting from this project should be minimized by using effective erosion and sediment control practices and structures. Consideration should also be given to denuded areas to be promptly revegetated following construction work. If the total land disturbance exceeds 10,000 square feet, an ESC plan will be required. Some localities also require an ESC plan for disturbances less than 10,000 square feet. A stormwater management plan may also be required. For any land disturbing activities equal to one acre or more, you are required to apply for coverage under the VPDES General Permit for Discharges of Storm Water from Construction Activities. The Virginia Stormwater Management Permit Authority may be DEQ or the locality.

Recommendations and Potential Permits:

Based upon review of the information provided, DEQ's Virginia Water Protection (VWP) Permit Program offers the following general recommendations concerning potential surface water impacts:

1. Prior to commencing project work, all surface waters on the project site should be delineated by a qualified professional and verified by the USACE or DEQ. Note that the USACE can confirm boundaries of federal jurisdictional waters and state jurisdictional waters but may only provide confirmation of Waters of the United States (WOTUS) boundaries. Except in couple of situations, DEQ provides confirmation of all state surface waters boundaries, whether or not the USACE has jurisdiction.
2. Wetland, stream, and open water impacts should be avoided and minimized to the maximum extent practicable.
3. If the scope of the project changes, additional review will be necessary by one or more offices in the Commonwealth's Secretariat of Natural Resources and/or the USACE.
4. At a minimum, any required compensation for permanent impacts to State Waters, including the compensation for permanent conversion of forested wetlands and scrub-shrub wetlands to emergent wetlands, should be in accordance with all applicable state regulations and laws. The typical ratios for permanent conversion impacts is 1:1 (not a standard ratio). Secondary impacts (e.g., loss of hydrology, significant temporary impacts, etc.) should also be considered, and may require compensatory mitigation at the standard ratios, unless determined otherwise based on project-specific considerations. Permanent impacts to forested or converted wetlands are required to be compensated by establishing or restoring new forested or scrub-shrub wetlands, within the impacted watershed. Compensation is preferred through available sources of mitigation bank and in-lieu program wetland mitigation credits.
5. Any temporary impacts to surface waters associated with this project should be restored 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 (ESC) should be designed in accordance with the most recent version of the Virginia Stormwater Management Handbook. 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 also 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 most recent Virginia Stormwater Management Handbook. Please note that on June 22, 2023, Virginia's State Water Control Board adopted new Virginia Erosion and Stormwater Management Regulations (9VAC25-875) to consolidate program requirements and correct inconsistencies between erosion and sediment control and stormwater management program regulations. Additionally, the project will require coverage under the new Construction General Permit. These changes will become effective on July 1, 2024.
8. No machinery may enter state surface waters, unless authorized by a Virginia Water Protection (VWP) individual permit, general permit, or general permit coverage.
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 Wildlife Resources, the Department of Conservation and Recreation (DCR), the Virginia Marine Resources Commission (VMRC), and the U.S. Fish and Wildlife Service (USFWS), or other protective measures for listed threatened or endangered species and/or critical habitat. The permittee should retain a copy of any DEQ and resource agency correspondence concerning species or habitats 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 Virginia Water Protection (VWP) individual permit, general permit, or general permit coverage. Wet, excess, or waste concrete is 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 USFWS. Use of herbicides in state waters shall be performed in accordance with Code of Virginia Chapter 39 - Pesticide Control (§§ 3.2-3900 through 3.2-3947) and 9VAC25-800 et. seq. These herbicides should be applied according to label directions by an herbicide applicator licensed by the Virginia Department of Agriculture and Consumer Services (VDACS), Office of Pesticide Services. A non-petroleum-based surfactant should be used in or around any surface waters.

Permits:

Based on DEQ's review of Dominion's report dated July 2, 2024, the proposed project may require a Virginia Water Protection (VWP) individual permit or general permit coverage. The applicant may

submit a Joint Permit Application (JPA) in accordance with form instructions for further evaluation and final permit need determination by DEQ.

Should you have any questions, please don't hesitate to contact me at 804-965-4329 or at michelle.henichuck@deq.virginia.gov.

Sincerely,

Michelle Henichuck

Michelle Henichuck, PWS
Senior Wetland Ecologist
Virginia Department of Environmental Quality
Office of Wetlands & Stream Protection

Phone: 804-965-4329

Email: Michelle.Henichuck@DEQ.Virginia.gov

DEQ Office Address:

1111 E. Main Street
Richmond, VA 23219

Cc: Margaret Dannemann, DEQ - NRO
Bettina Rayfield, DEQ - Office of Environmental Review



Memo

To:	Stacey Ellis Dominion Energy 120 Tredegar Street Richmond, VA 23219	From:	Corey Gray Stantec Consulting Services, Inc. 5209 Center Street Williamsburg, VA 23188
File:	203401909	Date:	July 24, 2024

Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Stantec conducted database searches for solid and hazardous wastes and petroleum release sites within a 0.5-mile radius of the proposed Fredericksburg – Possum Point Projects Lines #252 and #29 – Aquia Harbour to Possum Point Segment in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia project (Project). The Project begins at the Aquia Substation in Stafford County, Virginia and extends north for 11.9-miles, terminating at the Possum Point switchyard, in Prince William County, Virginia. This segment of the Project also includes a 0.7-mile portion of the existing line #2083 in the City of Fredericksburg. The Project will predominantly take place within the existing, cleared and maintained transmission line right-of-way (ROW); however, some additional ROW clearing may be needed in some areas.

Stantec obtained publicly available data from the Environmental Protection Agency (EPA) Facility Registry System (FRS), which provides information about facilities, sites, or places subject to environmental regulation or of environmental interest. Although this data set includes all sites subject to environmental regulation by the EPA or other state authority, such as sites that fall under air emissions or wastewater programs, the results reported here only include those sites which fall under the EPA's hazardous waste, solid waste, remediation, and underground storage tank programs. These sites include Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Superfund; Resource Conservation and Recovery Act (RCRA); toxic release inventory (TRI) and brownfield sites. Per this database, there are 16 registered RCRA sites and three registered TRI sites present within a 0.5-mile radius of the project (Table 1). Nine of these RCRA sites are active. One site on the TRI is active and located at Dominion Energy's Possum Point Power Station a little over 1,000 feet from the Project.

The DEQ records were also searched for the presence of solid waste management facilities, Voluntary Remediation Program sites, and petroleum releases within 0.5 mile of the proposed project. Six solid waste permit sites (Table 2) are located within 0.5 mile of the project area, the nearest of these (Dominion – Possum Point Power Station, permits 900000006595 & 900000000873) is approximately 470 linear feet from the project centerline. They are outside of the ROW, and the systems associated with the permit are either closed, inactive or undesignated. A total of 63 petroleum release sites were identified within the search radius, with the closest site (Dominion Possum Point Power Station, PC Number 20013228) located approximately 50 linear feet from the project area. This site has been closed since April 2001. All identified petroleum release sites within 0.5 mile of the proposed Project are closed. Additionally, there are 18 registered petroleum tank site within 0.5 mile of the project area, the nearest of which is the Possum Point Substation (Facility ID #3012654) at approximately 135 linear feet. Dominion Energy has a procedure in place to handle petroleum contaminated soil, if encountered; however, as all the release sites are located outside of the Project area and are not expected to have an impact on the proposed Project.

In summary, a total of 63 petroleum release sites, six solid waste permit sites, three TRI sites, 18 registered petroleum tank sites, and 16 RCRA sites are located within a 0.5-mile radius of the project area. No EPA registered brownfield sites, or CERCLA/Superfund sites are located within 0.5 mile of the project area.

Table 1. RCRA and TRI sites identified by the EPA as occurring within 0.5-mile of the Project.

Site Name	Identifier	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Dominion – Possum Point Power Station	VAD000620476, 22026PSSMP19000	RCRA, TRI	Prince William County	38.540396	-77.281995	Active	1,160
A-Annandale Inc	VAD000001206	RCRA	Prince William County	38.538241	-77.281848	Inactive	10
Camp Pendleton & Quantico Housing LLC	VAR000506592	RCRA	Prince William County	38.540493	-77.333426	Active	2,240
Quantico Middle School	VAP40720151	RCRA	Prince William County	38.536390	-77.341020	Inactive	660
Fick, J F Inc	VAD023885932	RCRA	Stafford County	38.510789	-77.369678	Inactive	2,410
Normans Used Refinished Furniture	VAR00014753	RCRA	Stafford County	38.510530	-77.369810	Inactive	2,410
Fas Mart Inc Store No 50	VAR000007492	RCRA	Fredericksburg City	38.315788	-77.491984	Active	2,670
Cardinal Cleaners	VAD101713618	RCRA	Fredericksburg City	38.314250	-77.474900	Inactive	3,100
Firestone Complete Auto Care #002607	VA0000902312	RCRA	Fredericksburg City	38.315396	-77.475201	Active	2,840
CVS Pharmacy #1656	VAR000522573	RCRA	Fredericksburg City	38.302772	-77.481144	Active	2,660
Mary Washington Hospital	VAR000000661	RCRA	Fredericksburg City	38.311563	-77.480687	Active	1,370
Kaiser Permanente Fredericksburg Medical Office Building	VAR000525352	RCRA	Fredericksburg City	38.310009	-77.486895	Active	220
Highs #28430	VAD988192258	RCRA	Fredericksburg City	38.307135	-77.479521	Inactive	1,690
Virginia Semiconductor Inc	VAR000000299	RCRA	Fredericksburg City	38.303306	-77.483395	Active	740
CVS Pharmacy #10454	VAR000529784	RCRA	Fredericksburg City	38.302772	-77.481144	Active	2,160

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	Identifier	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Universal Forest Products	22404NVRSLRTE21	TRI	Fredericksburg City	38.299456	-77.486614	N/A	2,600
Chesapeake Wood Treating Co	VAD981744444, 22401CHSPKROUTE	RCRA, TRI	Fredericksburg City, Spotsylvania County	38.299456	-77.486614	Inactive	2,600

Table 2. Solid waste sites identified by the DEQ as occurring within 0.5-mile of the Project.

Site Name	Permit Number	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Dominion – Possum Point Power Station ¹	900000006595	Solid Waste Permit	Prince William County	38.53700	-77.28000	Unknown	470
Dominion – Possum Point Power Station	900000000873	Solid Waste Permit	Prince William County	38.53700	-77.28000	Closed	470
Dominion – Possum Point Power Station	900000005322	Solid Waste Permit	Prince William County	38.55000	-77.28300	Inactive	1,870
University of Mary Washington	900000001703	Solid Waste Permit	Prince William County	38.30500	-77.47900	Closed	1,400

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	Permit Number	Interest Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Mary Washington Hospital	900000000286	Solid Waste Permit	Prince William County	38.31100	-77.48400	Closed	710
Mary Washington Hospital	900000000726	Solid Waste Permit	Prince William County	38.31100	-77.48400	Closed	710

¹ Most likely the same site as the closed solid waste site below as they have the same coordinates.

Table 3. Petroleum releases identified by the DEQ as occurring within 0.5 mile of the Project.

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Former 7 Eleven 28430	19973179	City of Fredericksburg	38.30730487	-77.47974422	Closed	Confirmed	Y	1,370
McDonalds 1603	20113032	City of Fredericksburg	38.30519452	-77.47997499	Closed	Confirmed	N	1,085
Continental Baking - Fredericksburg	19880566	City of Fredericksburg	38.30430263	-77.48134953	Closed	Confirmed	N	725

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
First Union National Bank	19954042	City of Fredericksburg	38.30447494	-77.48089262	Closed	Confirmed	N	850
Mary Washington College	19983748	City of Fredericksburg	38.30498131	-77.47871667	Closed	Confirmed	N	1,455
Witt William Properties	20113138	City of Fredericksburg	38.30433775	-77.47895237	Closed	Confirmed	N	1,385
Hollister William Jr and Jacqueline W Property	20183038	City of Fredericksburg	38.307983	-77.476131	Closed	Confirmed	N	2,425
Waite Jeanne H Property	20163170	City of Fredericksburg	38.307655	-77.475763	Closed	Confirmed	N	2,485
Glynn Edward J and Heather M Property	20173091	City of Fredericksburg	38.302333	-77.480377	Closed	Confirmed	N	1,365
Kingdom Baptist Church Property	20103175	City of Fredericksburg	38.30225444	-77.4804782	Closed	Confirmed	N	1,385

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Meriwether Thomas N Property	20183249	City of Fredericksburg	38.301532	-77.479774	Closed	Confirmed	N	1,700
AGM Properties LLC - Fredericksburg Property	20123154	City of Fredericksburg	38.30105993	-77.47992983	Closed	Confirmed	N	1,805
Carder Florance Residence	20013057	City of Fredericksburg	38.30151562	-77.47875642	Closed	Confirmed	N	1,915
Mastin Ronald R Property	20103052	City of Fredericksburg	38.3011226	-77.47947091	Closed	Confirmed	N	1,885
Sauer-Park LLC Property	20223137	City of Fredericksburg	38.302102	-77.477389	Closed	Confirmed	N	2,110
Bridgewater Pamela Residence	20083163	City of Fredericksburg	38.29994871	-77.48703399	Closed	Confirmed	N	2,070
Jones Living Trust	20203082	City of Fredericksburg	38.300752	-77.479777	Closed	Confirmed	N	1,920

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Home Investors of America Property	20133108	City of Fredericksburg	38.31679416	-77.47714526	Closed	Confirmed	N	2,130
Henninger Jaqueline P Property	20133103	City of Fredericksburg	38.30044158	-77.47895691	Closed	Confirmed	N	2,155
Faltum Andrew and Sheryl Residence	20013079	City of Fredericksburg	38.30076631	-77.47825388	Closed	Confirmed	N	2,210
Null Vicky Residence	20073190	City of Fredericksburg	38.30091971	-77.47794338	Closed	Confirmed	N	2,235
Frelick Donna S and Graeme P Residence	20153038	City of Fredericksburg	38.30069974	-77.47819096	Closed	Confirmed	N	2,230
Mitchell Elizabeth W Residence	20153004	City of Fredericksburg	38.2996852	-77.48015406	Closed	Confirmed	N	2,200
Pates James M Property	20103151	City of Fredericksburg	38.30043769	-77.47812321	Closed	Confirmed	N	2,330

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Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Conway David L and Gail W Residence	20143059	City of Fredericksburg	38.29969376	-77.4795641	Closed	Confirmed	N	2,280
Tucker Bill Residence	20103013	City of Fredericksburg	38.30030306	-77.47792406	Closed	Confirmed	N	2,390
Davis Carolyn Residence	19983733	City of Fredericksburg	38.29982472	-77.47788473	Closed	Confirmed	N	2,530
Strentz Stacey N Property	20193202	City of Fredericksburg	38.299852	-77.477765	Closed	Confirmed	N	2,555
Guardiani Sheryl G John C and Daniel C Property	20183030	City of Fredericksburg	38.298998	-77.47991	Closed	Confirmed	N	2,460
Lindblom Dolores A Residence	20113240	City of Fredericksburg	38.29911947	-77.47927738	Closed	Confirmed	N	2,500
Quantico MCB - Building 28000	20013259	Prince William County	38.5110571	-77.35589476	Closed	Confirmed	N	1,980

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Quantico MCB Engineering Test Site 28000D	19940092	Prince William County	38.51143251	-77.35566136	Closed	Confirmed	Y	2,030
Independent Rental Company	19911990	Stafford County	38.51326191	-77.36584277	Closed	Confirmed	N	940
Hilldrup Moving and Storage	20103084	Stafford County	38.51444684	-77.36607516	Closed	Confirmed	Y	1,060
Midway Research Center - Bldg MI217 Tank OT09	19954097	Stafford County	38.49620002	-77.37015822	Closed	Confirmed	N	1,335
Hilldrup Moving and Storage Property	20053091	Stafford County	38.51503243	-77.36689734	Closed	Confirmed	N	1,320
Orphan tanks in VDOT R-O-W at 3854 Jeff Davis Hwy	20153122	Stafford County	38.50721006	-77.37184235	Closed	Confirmed	Y	2,340
Virginia Gold	19993373	Stafford County	38.50779297	-77.37171511	Closed	Confirmed	N	2,335

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Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Trailer Abandoned	19993297	Stafford County	38.50574605	-77.37258549	Closed	Confirmed	N	2,485
Quantico MCB Water Treatment Plan	19954247	Prince William County	38.52035488	-77.36817757	Closed	Confirmed	Y	1,920
MCB-Quantico - Caddy Drive	20233120	Prince William County	38.52030481	-77.36828677	Closed	Confirmed	N	1,960
Quantico MCB - Building 3301B	19940264	Prince William County	38.535528	-77.337153	Closed	Confirmed	N	400
Arc of Greater Prince William - Insight Inc	20043255	Prince William County	38.53525376	-77.32104044	Closed	Confirmed	N	95
Freddie Mac Property - 19111 Mockingbird Heights R	20103231	Prince William County	38.53613957	-77.3190108	Closed	Confirmed	N	65
Buchanan Ronald Residence	20063104	Stafford County	38.4843005	-77.37835786	Closed	Confirmed	N	1,845

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Marshall William Residence	20003368	Prince William County	38.53514382	-77.31203285	Closed	Confirmed	N	1,280
Randall Gregory D and Beggs Melinda Residence	20123155	Prince William County	38.53478513	-77.30967458	Closed	Confirmed	N	1,740
Lee Willie H and Lola M Residence	20153006	Prince William County	38.5402835	-77.32474909	Closed	Confirmed	N	2,185
Mayer Maureen Property	20083145	Prince William County	38.54071541	-77.32717839	Closed	Confirmed	N	2,375
Triangle Elementary School	19911881	Prince William County	38.54071176	-77.32137748	Closed	Confirmed	N	1,815
Edwards Victoria Residence	20213128	Prince William County	38.547625	-77.309225	Closed	Confirmed	N	1,355
3196 Shoreview Rd Property	20233103	Prince William County	38.55008681	-77.30847172	Closed	Confirmed	N	1,850

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Virginia Power - Possum Point	19983621	Prince William County	38.53468253	-77.28197275	Closed	Confirmed	Y	1,140
VEPCO - Possum Point Power Station	20013045	Prince William County	38.53587037	-77.2809117	Closed	Confirmed	N	710
Dominion Possum Point Power Station	20013228	Prince William County	38.53803226	-77.28122222	Closed	Confirmed	N	50
Virginia Electric Power - APAC Virginia	19860023	Prince William County	38.54038998	-77.28387367	Closed	Confirmed	N	135
Virginia Power - Possum Point	19921506	Prince William County	38.53813894	-77.28076719	Closed	Confirmed	N	155
Dominion Possum Point Power Station	20013150	Prince William County	38.53789386	-77.27983118	Closed	Confirmed	N	370
Bagley Beverly V Residence	20093073	Prince William County	38.55340627	-77.29870445	Closed	Confirmed	N	1,060

Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	PC Number	Location	Latitude	Longitude	Status	Type of Release	Federally Registered Tank?	Proximity to Centerline (feet)
Hicks Loretta Residence	20063274	Prince William County	38.55351692	-77.29743808	Closed	Confirmed	N	965
Ernest James Residence	20073095	Stafford County	38.45927846	-77.38952312	Closed	Confirmed	N	385
Young William Residence	20063052	Prince William County	38.55509139	-77.29975951	Closed	Confirmed	N	1,740
Virginia Home Buyers Ltd Liability Co Property	20173135	Stafford County	38.453922	-77.39598	Closed	Confirmed	N	2,460

Table 4. Registered petroleum tanks identified by the DEQ as occurring within 0.5 mile of the Project.

Site Name	Facility ID	Facility Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Atlantic Commercial Construction	3005079	Contractor	Stafford County	38.51294	-77.3663	No	1,030
Midway Research Center	3012666	Federal Military	Stafford County	38.49693	-77.3708	Yes	1,605

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Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	Facility ID	Facility Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
All-American Sports	3024352	Commercial	Stafford County	38.51489	-77.3665	No	1,190
Hilldrup Moving and Storage	3025464	Trucking Transport	Stafford County	38.51428	-77.3671	Yes	1,340
Bean & Mallow Inc	3007211	Contractor	Stafford County	38.51432	-77.3671	No	1,340
Boswell Marathon	3014873	Gas Station	Stafford County	38.50832	-77.3712	Yes	2,235
Vidas Hardware	3020802	Commercial	Stafford County	38.50783	-77.3718	No	2,350
Aquia Harbour Golf Course Maintenance	3014923	Commercial	Stafford County	38.47359	-77.3752	No	850
Possum Point Power Station	3012654	Utility	Prince William County	38.53803	-77.2816	Yes	135
Aquia Harbour Marina	3014922	Commercial	Stafford County	38.45779	-77.3831	Yes	1,435
Aquia Harbour Maintenance Shop	3014921	Commercial	Stafford County	38.45775	-77.3952	Yes	1,985
7-ELEVEN #28430	3014414	Gas Station	City of Fredericksburg	38.30568	-77.4801	No	1,055
Continental Baking Fredericksburg	3007932	Commercial	City of Fredericksburg	38.30431	-77.4811	No	820
The Clean Machine	3014091	Gas Station	City of Fredericksburg	38.30408	-77.4807	No	965

Reference: Aquia Harbour - Possum Point Lines #29, #252, #2083, and #568 Rebuild in Stafford and Prince William, Counties and the City of Fredericksburg, Virginia: Solid & Hazardous Waste Search

Site Name	Facility ID	Facility Type	Location	Latitude	Longitude	Status	Proximity to Centerline (feet)
Firestone Store #0247/002607	3001211	Gas Station	City of Fredericksburg	38.31436	-77.4758	No	2,175
Roadway Express	3022198	Trucking Transport	City of Fredericksburg	38.31496	-77.4763	No	2,075
Fas Mart #50	3023631	Gas Station	City of Fredericksburg	38.3142	-77.4753	Yes	2,305
Service Transportation; Inc	3007082	Unknown	City of Fredericksburg	38.31543	-77.4762	No	2,140



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

Stantec Consulting Services Inc.

Corey P. Gray

Corey Gray

Principal, Senior Environmental Scientist

Phone: 757-220-6869

Corey.Gray@stantec.com



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

Phone: (804) 693-6694



In Reply Refer To:

07/24/2024 16:16:10 UTC

Project Code: 2024-0080627

Project Name: Aquia Harbour to Possum Point Partial Rebuild

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

To Whom It May Concern:

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

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

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

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

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

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

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

This species list is provided by:

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

PROJECT SUMMARY

Project Code: 2024-0080627

Project Name: Aquia Harbour to Possum Point Partial Rebuild

Project Type: Transmission Line - Maintenance/Modification - Above Ground

Project Description: Wreck and rebuild of several cohabitated electric transmission OH lines within existing right-of-way.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.500944,-77.36465059615426,14z>



Counties: Prince William and Stafford counties, Virginia

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

CLAMS

NAME	STATUS
Dwarf Wedgemussel <i>Alasmidonta heterodon</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/784	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Harperella <i>Ptilimnium nodosum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3739	Endangered
Sensitive Joint-vetch <i>Aeschynomene virginica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/855	Threatened
Small Whorled Pogonia <i>Isotria medeoloides</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

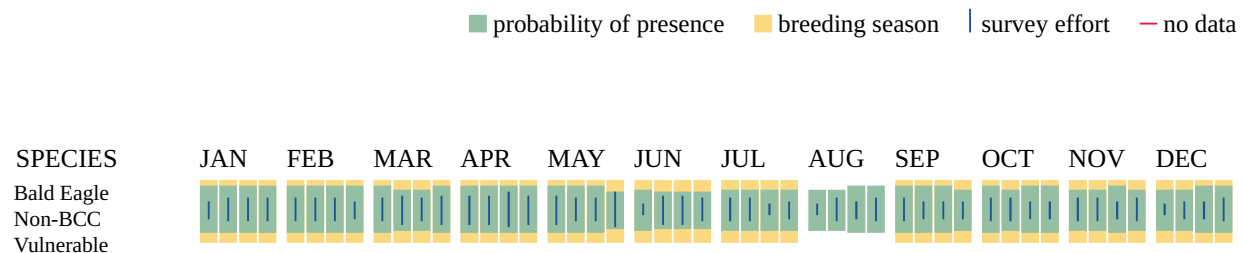
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

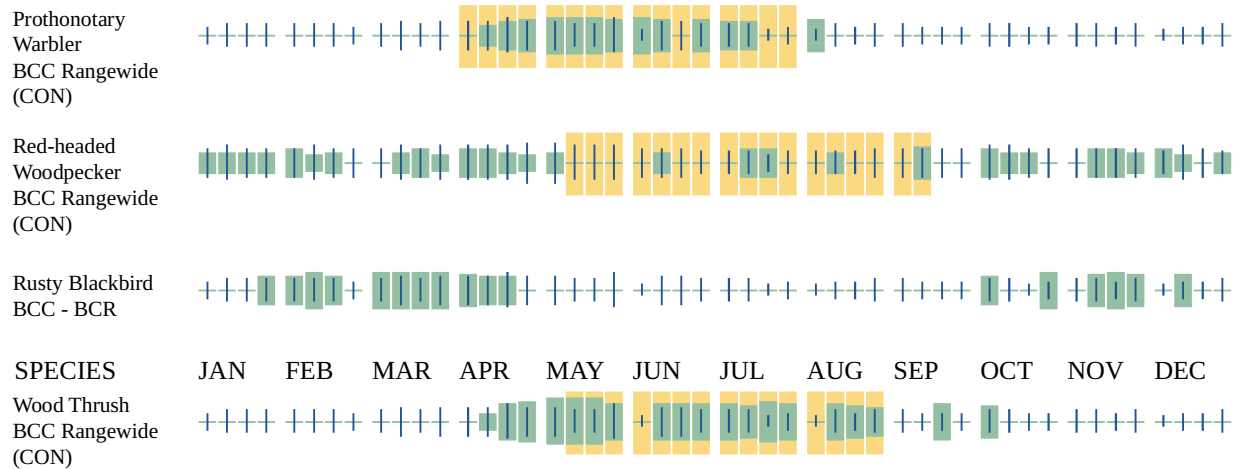
NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Cerulean Warbler <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 28 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20

NAME	BREEDING SEASON
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Prairie Warbler <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Rebecca Cummings
Address: 1011 Boulder Springs Dr
Address Line 2: Suite 225
City: Richmond
State: VA
Zip: 23225
Email: rebecca.cummings@stantec.com
Phone: 8047296754

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694



In Reply Refer To:

07/24/2024 16:24:25 UTC

Project code: 2024-0080627

Project Name: Aquia Harbour to Possum Point Partial Rebuild

Federal Nexus: yes

Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Technical assistance for 'Aquia Harbour to Possum Point Partial Rebuild'

Dear Rebecca Cummings:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 24, 2024, for 'Aquia Harbour to Possum Point Partial Rebuild' (here forward, Project). This project has been assigned Project Code 2024-0080627 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

Determination for the Northern Long-Eared Bat

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" the northern long-eared bat.

Next Steps

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here <https://www.fws.gov/library/collections/interim-consultation-framework-northern-long-eared-bat>. If you

determine it meets the requirements of the Interim Consultation Framework, follow the procedures outlined there to complete section 7 consultation.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact the Virginia Ecological Services Field Office for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect”.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Dwarf Wedgemussel *Alasmodonta heterodon* Endangered
- Harperella *Ptilimnium nodosum* Endangered
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Sensitive Joint-vetch *Aeschynomene virginica* Threatened
- Small Whorled Pogonia *Isotria medeoloides* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Aquia Harbour to Possum Point Partial Rebuild

2. Description

The following description was provided for the project 'Aquia Harbour to Possum Point Partial Rebuild':

Wreck and rebuild of several cohabitated electric transmission OH lines within existing right-of-way.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.500944,-77.36465059615426,14z>



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

3. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

5. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

6. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

7. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

8. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

9. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

11. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
(If unsure, answer "Yes.")

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥ 3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

12. Will the action cause effects to a bridge?

No

13. Will the action result in effects to a culvert or tunnel?

No

14. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

No

15. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats**?

No

16. Will the action directly or indirectly cause construction of one or more new roads that are open to the public?

Note: The answer may be yes when a publicly accessible road either (1) is constructed as part of the proposed action or (2) would not occur but for the proposed action (i.e., the road construction is facilitated by the proposed action but is not an explicit component of the project).

No

17. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?

No

20. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

21. Will the action include drilling or blasting?

No

22. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

23. Will the proposed action involve the use of herbicide or other pesticides (e.g., fungicides, insecticides, or rodenticides)?

No

24. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

25. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

Note: Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

26. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

Yes

27. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property and has a diameter breast height of six inches or greater.

Yes

28. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥ 3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

Yes

29. [Semantic] Does your project intersect a known sensitive area for the northern long-eared bat?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your [state agency or USFWS field office](#)

Automatically answered

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by November 30, 2024?

No

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

7.32

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

7.32

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

0

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥ 3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, enter the total extent of those areas. Round up to the nearest tenth of an acre.

7.32

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

7.32

Will any snags (standing dead trees) ≥ 3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

Yes

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Rebecca Cummings
Address: 1011 Boulder Springs Dr
Address Line 2: Suite 225
City: Richmond
State: VA
Zip: 23225
Email: rebecca.cummings@stantec.com
Phone: 8047296754

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

Phone: (804) 693-6694



In Reply Refer To:

07/24/2024 16:08:51 UTC

Project Code: 2024-0080966

Project Name: Aquia Harbour to Possum Point Partial Rebuild - Line 2083

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

To Whom It May Concern:

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

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

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

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

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

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

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

This species list is provided by:

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

PROJECT SUMMARY

Project Code: 2024-0080966
Project Name: Aquia Harbour to Possum Point Partial Rebuild - Line 2083
Project Type: Transmission Line - Maintenance/Modification - Above Ground
Project Description: Wreck and rebuild of line 2083 electric OH transmission line within existing right-of-way.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.308085399999996,-77.48529565447612,14z>



Counties: Fredericksburg County, Virginia

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

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

CLAMS

NAME	STATUS
Green Floater <i>Lasmigona subviridis</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7541	Proposed Threatened
Yellow Lance <i>Elliptio lanceolata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4511	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

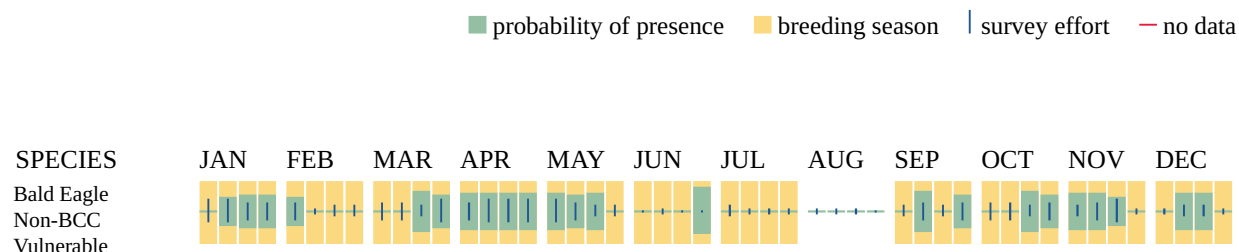
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Cerulean Warbler <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 28 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

NAME	BREEDING SEASON
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

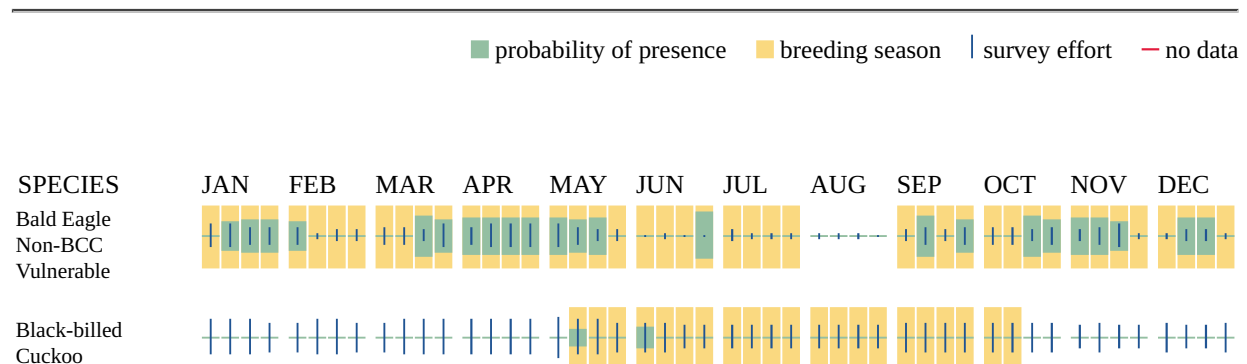
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



BCC Rangewide
(CON)

Cerulean Warbler
BCC Rangewide
(CON)

Chimney Swift
BCC Rangewide
(CON)

Grasshopper
Sparrow
BCC - BCR

Kentucky Warbler
BCC Rangewide
(CON)

Prairie Warbler
BCC Rangewide
(CON)

Prothonotary
Warbler
BCC Rangewide
(CON)

Red-headed
Woodpecker
BCC Rangewide
(CON)

Rusty Blackbird
BCC - BCR

Wood Thrush
BCC Rangewide
(CON)

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Rebecca Cummings
Address: 1011 Boulder Springs Dr
Address Line 2: Suite 225
City: Richmond
State: VA
Zip: 23225
Email: rebecca.cummings@stantec.com
Phone: 8047296754



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

Phone: (804) 693-6694



In Reply Refer To:

07/24/2024 16:13:20 UTC

Project code: 2024-0080966

Project Name: Aquia Harbour to Possum Point Partial Rebuild - Line 2083

Federal Nexus: no

Federal Action Agency (if applicable):

Subject: Technical assistance for 'Aquia Harbour to Possum Point Partial Rebuild - Line 2083'

Dear Rebecca Cummings:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 24, 2024, for 'Aquia Harbour to Possum Point Partial Rebuild - Line 2083' (here forward, Project). This project has been assigned Project Code 2024-0080966 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Green Floater *Lasmigona subviridis* Proposed Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Yellow Lance *Elliptio lanceolata* Threatened

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species and/or critical habitat listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

Next Steps

Coordination with the Service is complete. This letter serves as technical assistance. All conservation measures should be implemented as proposed. Thank you for considering federally listed species during your project planning.

We are uncertain where the northern long-eared bat occurs on the landscape outside of known locations. Because of the steep declines in the species and vast amount of available and suitable forest habitat, the presence of suitable forest habitat alone is a far less reliable predictor of their presence. Based on the best available information, most suitable habitat is now expected to be unoccupied. During the interim period, while we are working on potential methods to address this uncertainty, we conclude take is not reasonably certain to occur in areas of suitable habitat where presence has not been documented.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Virginia Ecological Services Field Office and reference Project Code 2024-0080966 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

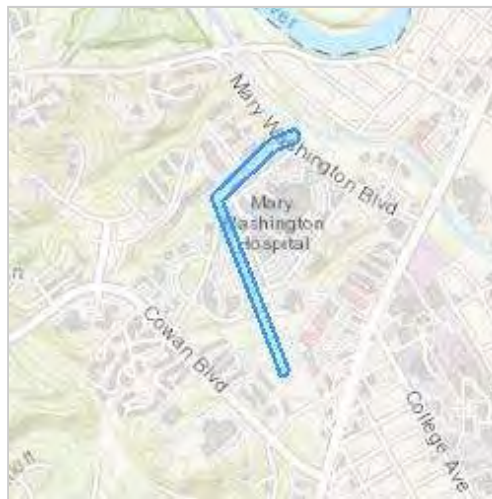
Aquia Harbour to Possum Point Partial Rebuild - Line 2083

2. Description

The following description was provided for the project 'Aquia Harbour to Possum Point Partial Rebuild - Line 2083':

Wreck and rebuild of line 2083 electric OH transmission line within existing right-of-way.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.308085399999996,-77.48529565447612,14z>



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

No

PROJECT QUESTIONNAIRE

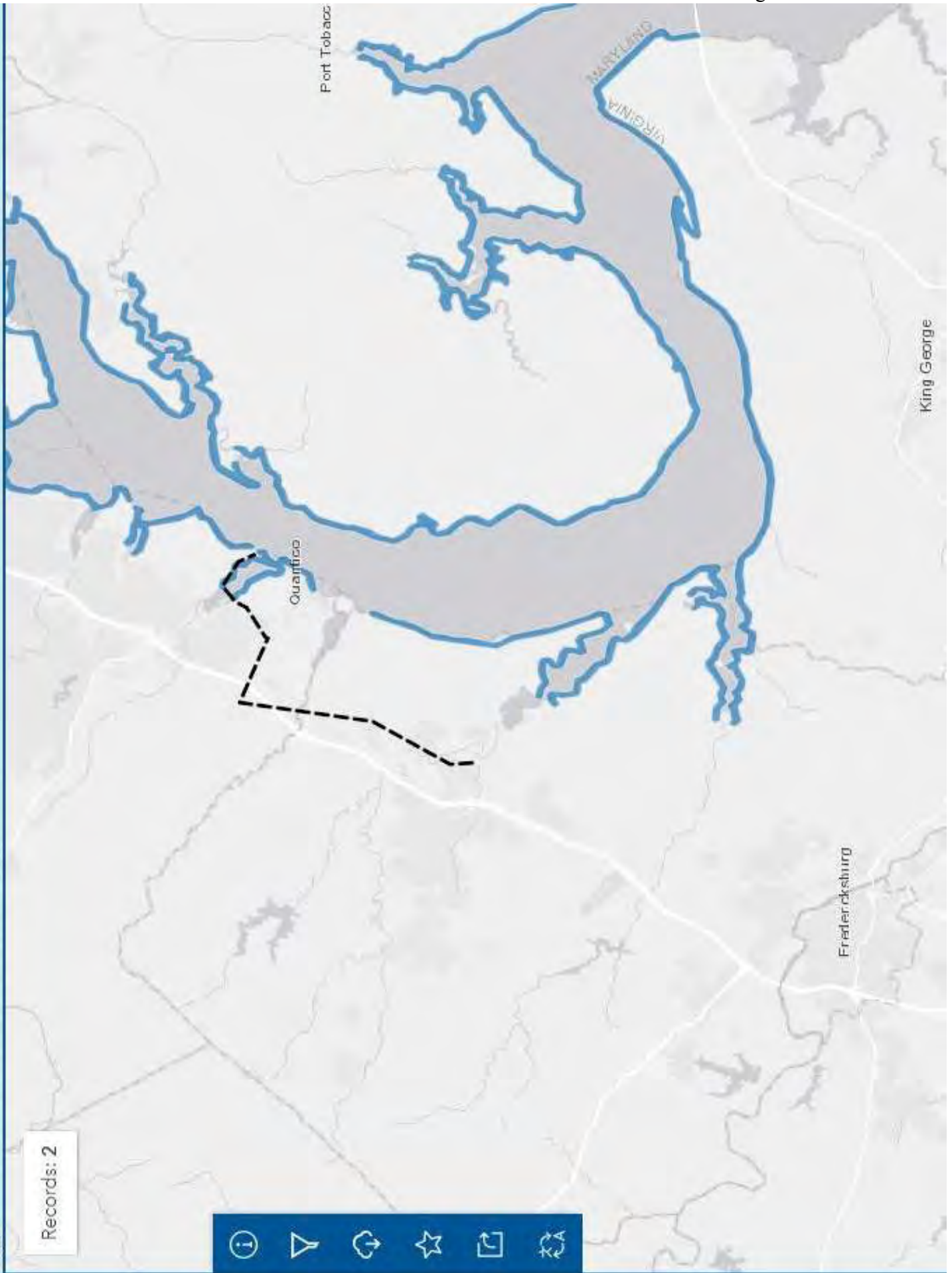
IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Rebecca Cummings
Address: 1011 Boulder Springs Dr
Address Line 2: Suite 225
City: Richmond
State: VA
Zip: 23225
Email: rebecca.cummings@stantec.com
Phone: 8047296754



U.S. Fish and Wildlife Service

Records: 2



7/24/24, 12:37 PM

VaFWIS GeographicSelect Options

Virginia Department of Wildlife Resources
An official website Here's how you know

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Virginia Department of Wildlife Resources

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VaFWIS Initial Project Assessment Report Compiled on 7/24/2024, 12:37:28 PM

Known or likely to occur within a **2 mile buffer around polygon; center 38.5124700 -77.3510599**
in **153 Prince William County, 179 Stafford County, VA**[View Map of
Site Location](#)596 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 26) (26 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		BOVA,Habitat
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
060006	SE	Ib	Floater, brook	Alasmidonta varicosa	Yes	BOVA,SppObs
040096	ST	Ia	Falcon, peregrine	Falco peregrinus	Yes	BOVA,SppObs
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
040379	ST	Ia	Sparrow, Henslow's	Centronyx henslowii		BOVA
060081	FPST	IIa	Floater, green	Lasmigona subviridis		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata	Yes	BOVA,SppObs
030012	CC	IVa	Rattlesnake, timber	Crotalus horridus	Yes	BOVA,SppObs
010077		Ia	Shiner, bridge	Notropis bifrenatus	Yes	BOVA,Habitat,SppObs
040306		Ia	Warbler, golden-winged	Vermivora chrysoptera		BOVA
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040181		IIa	Tern, common	Sterna hirundo		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
040203		IIb	Cuckoo, black-billed	Coccyzus erythrophthalmus		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA,Habitat

To view **All 596 species** [View 596](#)

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Virginia Wildlife Action Plan Conservation Opportunity Ranking

7/24/24, 12:37 PM

VaFWIS GeographicSelect Options

a - On the ground management strategies/actions exist and can be feasibly implemented.; b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

[View Map of All Query Results from All Observation Tables](#)

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams (4 records)

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

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE *	Highest Tier **	
C13	Chopawamsic creek	Confirmed	2		IV	Yes
C4	Aquia creek	Confirmed	4		IV	Yes
C64	Potomac river	Confirmed	6		IV	Yes
C67	Quantico Creek	Confirmed	2		IV	Yes

Impediments to Fish Passage (7 records)

[View Map of All Fish Impediments](#)

ID	Name	River	View Map
1275	AQUIA CREEK DAM	AQUIA CREEK	Yes
1271	BRECKINRIDGE DAM	NORTH BRANCH CHOPAWAMSIK CREEK	Yes
1262	CAMP 3	TR-SOUTH FORK QUANTI	Yes
1263	CARTER%27S DAY CAMP POND	SOUTH FORK QUANTICO CREEK	Yes
1265	POSSUM POINT ASH DAM #D	OFF STREAM	Yes
1266	POSSUM POINT ASH DAM #E	QUANTICO CREEK	Yes
1293	ROUTE 633	TR-QUANTICO CREEK	Yes

Colonial Water Bird Survey (2 records)

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

Colony_Name	N Obs	Latest Date	N Species			View Map
			Different Species	Highest TE *	Highest Tier **	
Western Shore, Quantico, Stafford	1	May 12 2013	1			Yes
Chopawamsic Creek	1	May 19 2003	1			Yes

Displayed 2 Colonial Water Bird Survey

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

are present. [View Map of Bald Eagle Concentration Areas and Roosts](#)

(6 records)

BECAR ID	Observation Year	Authority	Type	Comments	View Map
53	2006 - 2007	VDGIF, Center for Conservation Biology	Summer Concentration Area	Eagle_use High	Yes
54	2006 - 2007	VDGIF, Center for Conservation Biology	Summer Concentration Area	Eagle_use Low	Yes
55	2006 - 2007	VDGIF, Center for Conservation Biology	Summer Concentration Area	Eagle_use Moderate	Yes
56	2006 - 2007	VDGIF, Center for Conservation Biology	Winter Concentration Area	Eagle_use High	Yes
57	2006 - 2007	VDGIF, Center for Conservation Biology	Winter Concentration Area	Eagle_use Low	Yes
58	2006 - 2007	VDGIF, Center for Conservation Biology	Winter Concentration Area	Eagle_use Moderate	Yes

Bald Eagle Nests (19 records)

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

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
PW0201	11	Apr 24 2008	Unknown	Yes

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PW0301	8	Apr 29 2007	HISTORIC	Yes
PW0302	9	Mar 22 2008	HISTORIC	Yes
PW0401	3	Jan 1 2005	HISTORIC	Yes
PW0603	7	Apr 24 2008	HISTORIC	Yes
PW0801	2	Apr 24 2008	Unknown	Yes
PW0802	2	Apr 24 2008	UNKNOWN	Yes
PW8501	1	Jan 1 1985	HISTORIC	Yes
PW9601	11	Apr 27 2000	HISTORIC	Yes
PW9802	8	Jan 1 2001	HISTORIC	Yes
PW9902	15	Mar 22 2008	UNKNOWN	Yes
ST0801	2	Apr 24 2008	UNKNOWN	Yes
ST0802	2	Apr 24 2008	HISTORIC	Yes
ST8401	1	May 28 1984	HISTORIC	Yes
ST8601	7	Apr 29 2007	HISTORIC	Yes
ST8701	3	Jan 1 1989	HISTORIC	Yes
ST9001	17	Apr 27 2000	HISTORIC	Yes
ST9801	7	Apr 27 2000	HISTORIC	Yes
ST9803	15	Apr 29 2007	HISTORIC	Yes

Displayed 19 Bald Eagle Nests

Habitat Predicted for Aquatic WAP Tier I & II Species (6 Reaches)

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

Stream Name	Tier Species						View Map
	Highest TE *	BOVA Code, Status *, Tier **, Common & Scientific Name					
Aquia Creek (20700112)	FESE	060003	FESE	la	Wedgemussel, dwarf	Alasmidonta heterodon	Yes
Austin Run (20700112)	FESE	060003	FESE	la	Wedgemussel, dwarf	Alasmidonta heterodon	Yes
Quantico Creek (20700112)		010077		la	Shiner, bridle	Notropis bifrenatus	Yes
tributary (20700111)	FESE	060003	FESE	la	Wedgemussel, dwarf	Alasmidonta heterodon	Yes
tributary (20700112)		010077		la	Shiner, bridle	Notropis bifrenatus	Yes
tributary (20700112)	FESE	060003	FESE	la	Wedgemussel, dwarf	Alasmidonta heterodon	Yes
tributary (20700112)	FESE	060003	FESE	la	Wedgemussel, dwarf	Alasmidonta heterodon	Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species (3 Species)

[View Map of Combined Terrestrial Habitat Predicted for 3 WAP Tier I & II Species Listed Below](#)

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040105		IIb	Rail, king	Rallus elegans	Yes
040038			Bittern, American	Botaurus lentiginosus	Yes
040093			Eagle, bald	Haliaeetus leucocephalus	Yes

Public Holdings: (10 names)

Name	Agency	Level
Prince William Forest National Park	National Park Service	Federal
Prince William Forest Park	U.S. Dept. of Interior	Federal
Navy prop, under permit to DOI	U.S. Dept. of Navy	Federal
Prince William Forest Park	U.S. Dept. of Navy	Federal
Quantico - Naval Research Lab - Midway Island	U.S. Dept. of Navy	Federal
Quantico - waterworks	U.S. Dept. of Navy	Federal
Quantico MCCDC - Guadalcanal side	U.S. Dept. of Navy	Federal
Quantico MCCDC - mainside	U.S. Dept. of Navy	Federal
Quantico MCCDC Special Mgmt Areas	U.S. Dept. of Navy	Federal
Quantico National Cemetary	U.S. Dept. of Navy	Federal

Compiled on 7/24/2024, 12:37:28 PM 12285261.0 report=IPA searchType=P dist= 3218 poi= 38.5134700 -77.3510599 siteID= 38.4509400 -77.3878128; 38.4508630 -77.3868868; 38.4522620 -77.3865658; 38.4505300 -77.3877038; 38.4907500 -77.3859228; 38.5428020 -77.3573008; 38.5323290 -77.3237388; 38.5335960 -77.3230068; 38.5410650 -77.307177.2842448; 38.5458720 -77.2862218; 38.5510590 -77.2969038; 38.5338140 -77.3235548; 38.5325370 -77.3240938; 38.5434860 -77.3580258; 38.4905270 -77.3666308; 38.4595910 -77.3884738; 38.4522250 -77.3874028; 38.4509400 -77.3878128
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VaFWIS Initial Project Assessment Report Compiled on 7/24/2024, 12:31:43 PM

Known or likely to occur within a **2 mile buffer around polygon; center 38.3101700 -77.4852599**
in **177 Spotsylvania County, 179 Stafford County, 630 Fredericksburg City, VA**[View Map of
Site Location](#)538 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 22) (22 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
050022	FEST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon	Yes	BOVA,TEWaters,Habitat
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes	BOVA,TEWaters
060029	FTST	IIa	Lance., yellow	Elliptio lanceolata		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
060081	FPST	IIa	Floater, green	Lasmigona subviridis	Yes	BOVA,TEWaters,Habitat,SppObs
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
100079	FC	IIIa	Butterfly, monarch	Danaus plexippus		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus	Yes	BOVA,Habitat,SppObs
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040181		IIa	Tern, common	Sterna hirundo		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
040203		IIb	Cuckoo, black-billed	Coccyzus erythrophthalmus		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA,Habitat
060175		IIb	Slabshell, Roanoke	Elliptio roanokensis		BOVA

To view **All 538 species** [View 538](#)

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Very High Conservation Need; Virginia Wildlife Action Plan Conservation Opportunity Ranking:

a - On the ground management strategies/actions exist and can be feasibly implemented.; b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.; c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known****Anadromous Fish Use Streams** (6 records)<https://services.dwr.virginia.gov/fwis/index.asp>

1/3

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VaFWIS GeographicSelect Options

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

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE *	Highest Tier **	
C102	Rappahannock river	Confirmed	1		IV	Yes
C30	Hazel Run	Confirmed	2		IV	Yes
C47	Claiborne Run	Confirmed	5		IV	Yes
C69	Rappahannock river 1	Confirmed	6		IV	Yes
C84	Rappahannock river 2	Confirmed	4		IV	Yes
P190	Claiborne Run	Potential	0			Yes

Impediments to Fish Passage (2 records)[View Map of All](#)[Fish Impediments](#)

ID	Name	River	View Map
98	EMBREY DAM	RAPPAHANNOCK RIVER	Yes
119	raised culvert	CLAIBORN RUN	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters (15 Reaches)[View Map of All](#)[Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE *	BOVA Code, Status *, Tier **, Common & Scientific Name					
Rappahannock River (041302)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (041499)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (042547)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (046621)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (047347)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (047692)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (051290)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (052426)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (054920)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (057005)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (061300)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (062295)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (067493)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	

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Rappahannock River (074928)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	
Rappahannock River (075790)	FESE	010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus	Yes
		060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon	
		060081	FPST	Ila	Floater, green	Lasmigona subviridis	

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests (3 records)

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

Nest	N Obs	Latest Date	DGIF Nest Status	View Map
ST0003	2	Mar 1 2000	HISTORIC	Yes
ST0101	8	Apr 24 2006	HISTORIC	Yes
ST9401	16	Apr 26 2000	HISTORIC	Yes

Displayed 3 Bald Eagle Nests

Habitat Predicted for Aquatic WAP Tier I & II Species (3 Reaches)

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

Stream Name	Tier Species							View Map
	Highest TE *	BOVA Code, Status *, Tier **, Common & Scientific Name						
Rappahannock River (20801041)	FPST	010077		Ia	Shiner, bridge	Notropis bifrenatus		Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis		
Rappahannock River (20801041)	FESE	060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		Yes
		060081	FPST	Ila	Floater, green	Lasmigona subviridis		
Rappahannock River (20801041)	FPST	060081	FPST	Ila	Floater, green	Lasmigona subviridis		Yes
Rappahannock River (20801041)	FPST	060081	FPST	Ila	Floater, green	Lasmigona subviridis		Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species

BOVA Code	Status *	Tier **	Common Name	Scientific Name	View Map
040105		IIB	Rail, king	Rallus elegans	Yes

Public Holdings: (1 names)

Name	Agency	Level
Fredericksburg & Spotsylvania National Military Park	National Park Service	Federal

Compiled on 7/24/2024, 12:31:43 PM | 02285260.0 | report=IPA | searchType=P | dist= 3218 | poi= 38.3101700 -77.4852599 | siteDO= 38.3050730 -77.4839758 | 38.3052170 -77.4835248 | 38.3113330 -77.4865958 | 38.3135160 -77.4830858 | 38.3138910 -77.4834708 | 38.3117070 -77.4872688 | 38.3050730 -77.4839758 | PixelSize=64; Anadromous=0.025552; BECAR=0.022049; Bats=0.020833; Buffer=0.075976; County=0.068771; Impediments=0.021449; Int=0.115455; PublicLands=0.028532; SppObs=0.327568; TEWaters=0.03117; TierReaches=0.046839; TierTerrestrial=0.044437; Total=1.0352; Tracking_BOVA=0.254536; Trout=0.024062

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7/24/24, 12:38 PM

VaFWIS Map

1 Species Observations where Floater, brook (060006) observed

38,30,44.8 -77,21,03.8
is the Search Point

Show Position Rings

☒ Yes ☐ No

1 mile and 1/4 mile at the
Search Point

Show Search Area

☒ Yes ☐ No

2 Search distance miles
buffer

Display Search Point is not
at center at map center

Base Map Choices

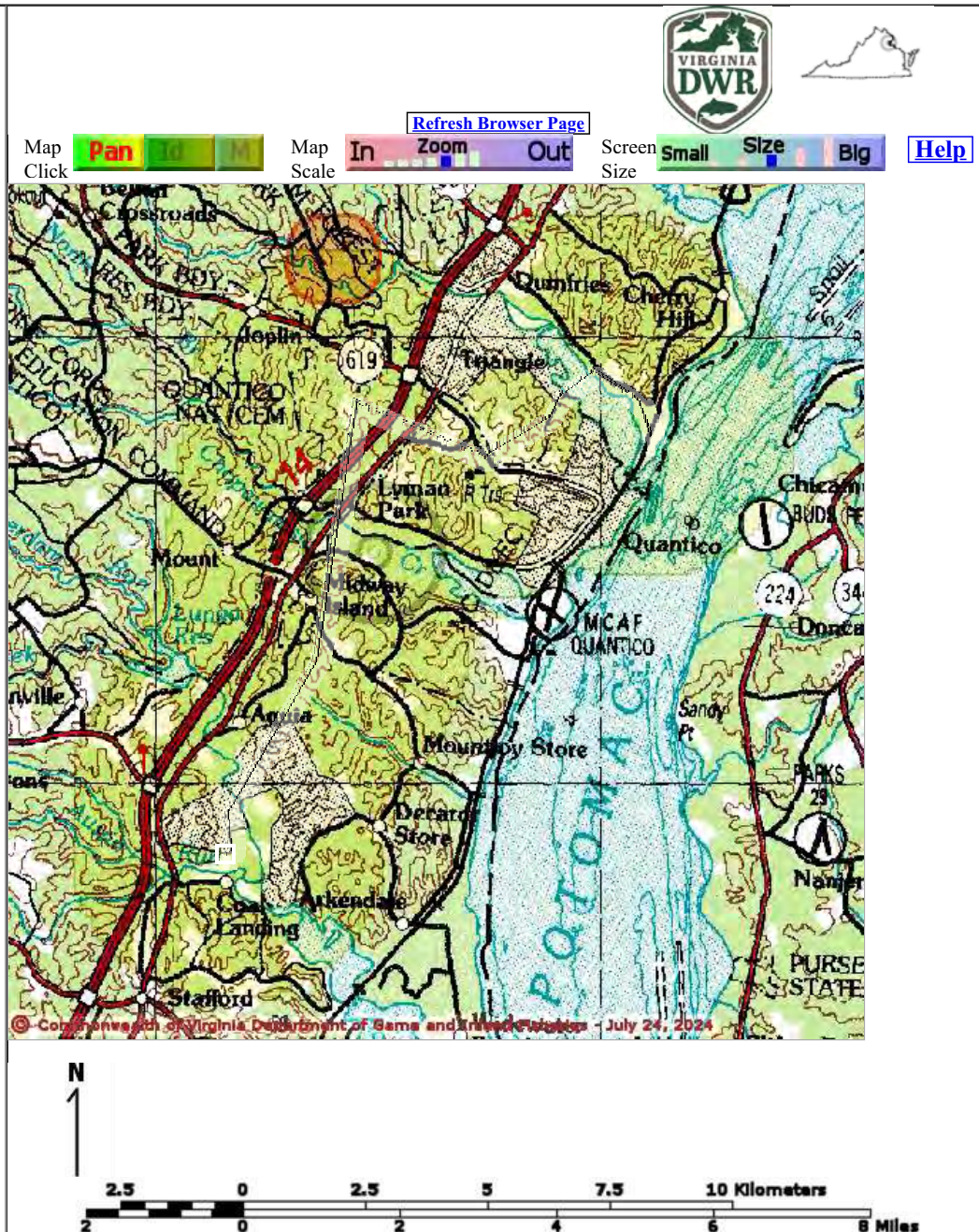
Topography ▼

Map Overlay Choices

Current List: Position, Search,
SppObs

Map Overlay Legend

-  Position Rings
1 mile and 1/4
mile at the
Search Point
-  2 mile radius
Search Area
-  Data
Observation Site



Point of Search 38,30,44.8 -77,21,03.8

Map Location 38,30,02.6 -77,20,05.1

Select **Coordinate System**: ☒ Degrees,Minutes,Seconds Latitude - Longitude

☐ Decimal Degrees Latitude - Longitude

☐ Meters UTM NAD83 East North Zone

☐ Meters UTM NAD27 East North Zone

Base Map source: USGS 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](https://microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 286806 and top 4273559. Pixel size is 29. .
Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed
as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters
east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display
represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

7/24/24, 12:38 PM

VaFWIS Map

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia
Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
<http://www.national.geographic.com/topo>
All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.

map assembled 2024-07-24 12:38:35 (qa/qc March 21, 2016 12:20 - tn=2285261.1 dist=3218
I)
\$poi=38.5124700 -77.3510599

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VaFWIS Map

2 Species Observations where Falcon, peregrine (040096) observed

38,30,44.8 -77,21,03.8
is the Search Point

Show Position Rings

☒ Yes ☐ No

1 mile and 1/4 mile at the
Search Point

Show Search Area

☒ Yes ☐ No

2 Search distance miles
buffer

Display Search Point is not
at center at map center

Base Map Choices

Topography ▼

Map Overlay Choices

Current List: Position, Search,
SppObs

Map Overlay Legend

-  Position Rings
1 mile and 1/4
mile at the
Search Point
-  2 mile radius
Search Area
-  Data
Observation Site



Point of Search 38,30,44.8 -77,21,03.8

Map Location 38,30,02.6 -77,20,05.1

Select **Coordinate System**: ☒ Degrees,Minutes,Seconds Latitude - Longitude

☐ Decimal Degrees Latitude - Longitude

☐ Meters UTM NAD83 East North Zone

☐ Meters UTM NAD27 East North Zone

Base Map source: USGS 1:250,000 topographic maps (see [Microsoft terraserver-usa.com](https://microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 18 NAD 1983 with left 286806 and top 4273559. Pixel size is 29. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 19200 meters east to west by 19200 meters north to south for a total of 368.6 square kilometers. The map display represents 63002 feet east to west by 63002 feet north to south for a total of 142.3 square miles.

7/24/24, 12:40 PM

VaFWIS Map

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia
Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
<http://www.national.geographic.com/topo>
All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.

map assembled 2024-07-24 12:40:01 (qa/qc March 21, 2016 12:20 - tn=2285261.1 dist=3218
I)
\$poi=38.5124700 -77.3510599

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| [DWR](#) | [Credits](#) | [Disclaimer](#) | [Contact](#) | [Web Policy](#) |

7/24/24, 12:33 PM

VaFWIS Map

Threatened and Endangered Waters where Sturgeon, Atlantic (010032) observed

38,18,36.6 -77,29,06.9
is the Search Point

Show Position Rings

☒ Yes ☐ No

1 mile and 1/4 mile at the Search Point

Show Search Area

☒ Yes ☐ No

2 Search distance miles
buffer

Search Point is at
map center

Base Map Choices

Topography

Map Overlay Choices

Current List: Position, Search,
TEWaters

Map Overlay Legend

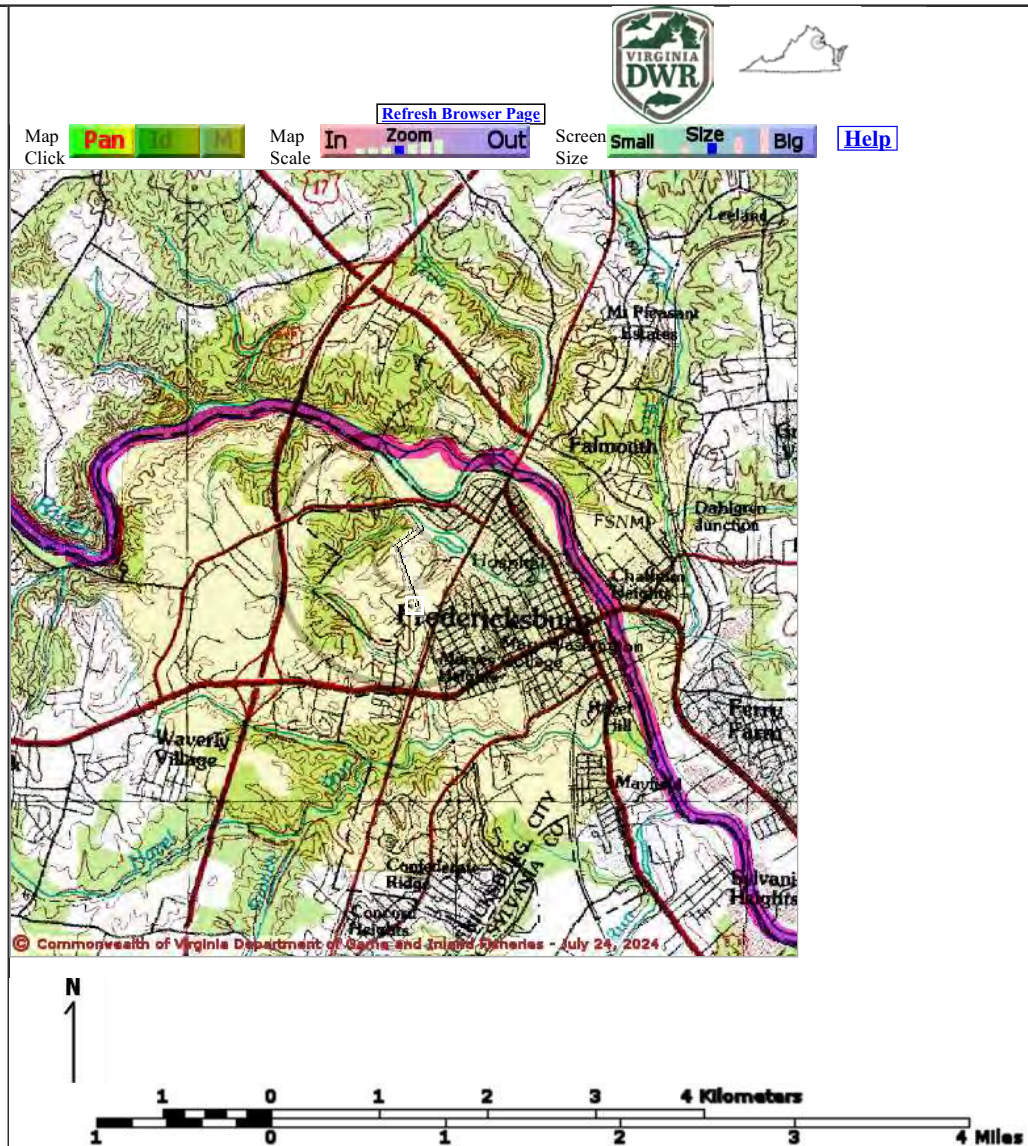
T & E Waters

Federal

State

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

2 mile radius
Search Area



Point of Search 38,18,36.6 -77,29,06.9

Map Location 38,18,34.3 -77,29,07.1

Select **Coordinate System**: ☒ Degrees, Minutes, Seconds Latitude - Longitude

☐ Decimal Degrees Latitude - Longitude

☐ Meters UTM NAD83 East North Zone

☐ Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see [Microsoft terraservertopography](https://www.microsoft.com/terraservertopography) for details)

Map projection is UTM Zone 18 NAD 1983 with left 277902 and top 4247881. Pixel size is 12. . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+- are from the United States Department of the Interior, United States Geological Survey. Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network. Shaded topographic maps are from TOPO! ©2006 National Geographic <http://www.national Geographic.com/topo> All other map products are from the Commonwealth of Virginia Department of Wildlife Resources.

map assembled 2024-07-24 12:33:41 (qa/qc March 21, 2016 12:20 - tn=2285260.1 dist=3218 1)

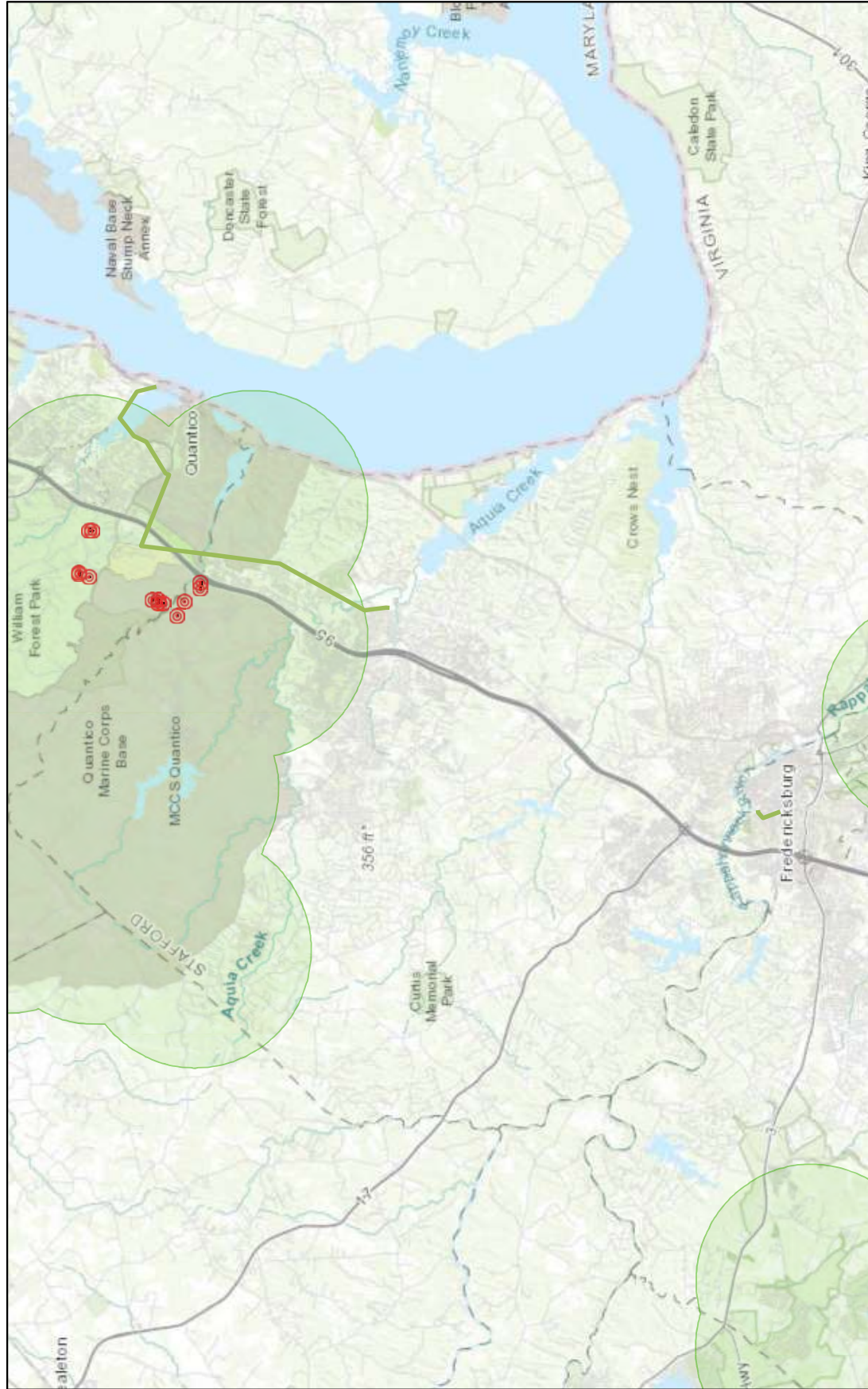
7/24/24, 12:33 PM

VaFWIS Map

\$poi=38.3101700 -77.4852599

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NLEB Locations and Roost Trees



7/24/2024, 12:44:12 PM

NLEB Known Occupied Maternity Roost (Summer Habitat)

NLEB Roost Tree 150-Foot Buffer

NLEB Capture 3 Mile Buffer

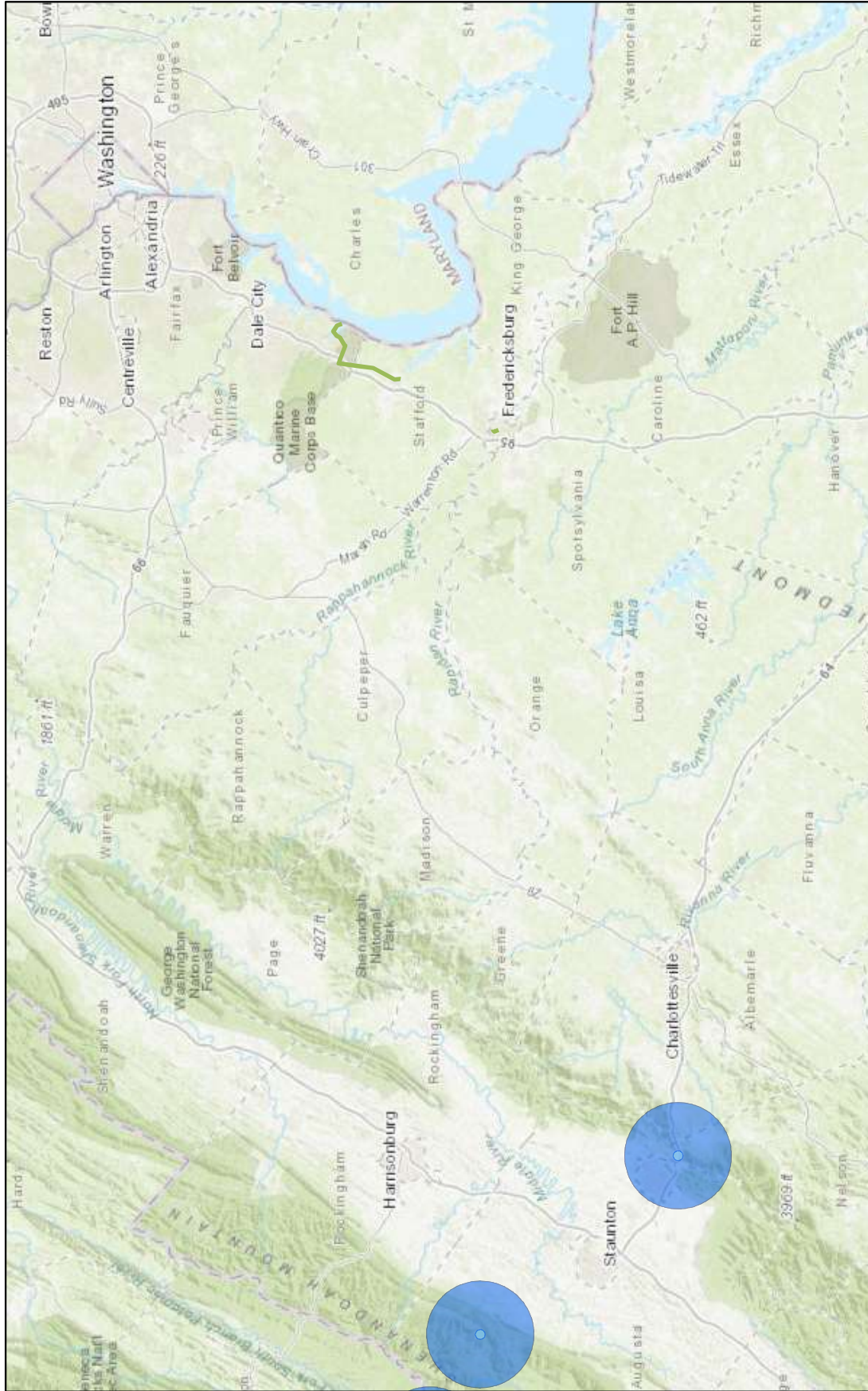
1:288,895

0 2 4 6 8 mi
0 3 6 12 km

Stafford County GIS Office, VITA, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Virginia Geographic Information Network (VGIN), and the Census and Localities and Towns submitting data to the project | Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS |
VA Dept. Game & Inland Fisheries

LBB & TCB Winter Habitat and Roosts



7/24/2024, 12:48:23 PM

1:1,155,581



Tri-colored and Little Brown Hibernaculum Half Mile Buffer



Tri-colored and Little Brown Hibernaculum 5.5 Mile Buffer

0 5 10 20 mi

0 12.5 25 50 km

Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

Dept. Game and Inland Fisheries
Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

Natural Heritage Resources

Your Criteria

Watershed (8 digit HUC): 02070011 - Lower Potomac River,02080104 - Lower Rappahannock River

Subwatershed (12 digit HUC): PL52 - Quantico Creek,PL53 - Chopawamsic Creek,PL54 - Potomac River-Tank Creek,PL57 - (Lower) Aquia Creek-Austin Run

Search Run: 7/24/2024 12:27:53 PM

Result Summary

Total Species returned: 22

Total Communities returned: 12

Click scientific names below to go to NatureServe report.

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

Common Name/Natural Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Lower Potomac								
(Lower) Aquia Creek-Austin Run								
AQUATIC NATURAL COMMUNITY								
NC-Lower Potomac	NC-Lower Potomac	NC-Lower Potomac	G1?	S1?	None	None	1	Y
Fourth Order Stream	Fourth Order Stream	Fourth Order Stream						
NP-Lower Potomac	NP-Lower Potomac	NP-Lower Potomac	G1	S1	None	None	1	Y
Fourth Order Stream	Fourth Order Stream	Fourth Order Stream						
TERRESTRIAL NATURAL COMMUNITY								
Coastal Plain	Quercus phellos -	Quercus phellos -	G3	S2	None	None	19	Y
Depression Swamp	Acer rubrum -	Acer rubrum -						
(Willow Oak - Red	Liquidambar	Liquidambar						
Maple - Sweetgum	styraciflua /	styraciflua /						
Type)	Vaccinium	Vaccinium						
	(formosum,	(formosum,						
	fuscatum) Forest	fuscatum) Forest						
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynomene	Aeschynomene	G2	S2	LT	LT	22	Y
	virginica	virginica						
Parker's Pipewort	Eriocaulon parkeri	Eriocaulon parkeri	G3	S2	None	None	18	Y
Marsh pea	Lathyrus palustris	Lathyrus palustris	G5	S1	None	None	9	Y
Northern Winged loosestrife	Lythrum alatum	Lythrum alatum	G5	S2	None	None	17	Y

Common Name/Natural Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Chopawamsic Creek								
AQUATIC NATURAL COMMUNITY								
NP-Lower Potomac	NP-Lower Potomac	NP-Lower Potomac	G1G2	S1S2	None	None	3	Y
Third Order Stream	Third Order Stream	Third Order Stream						
LEPIDOPTERA (BUTTERFLIES & MOTHS)								
Frosted Elfin	Callophrys irus	Callophrys irus	G3	S1S2	None	None	27	Y
Lemmer's Pinion	Lithophane lemmeri	Lithophane lemmeri	G3G4	S1S3	None	None	1	Y
Moth								
ODONATA (DRAGONFLIES & DAMSELFLIES)								
Fine-lined Emerald	Somatochlora filosa	Somatochlora filosa	G5	S2	None	None	14	Y
TERRESTRIAL NATURAL COMMUNITY								
Northern Piedmont	Quercus palustris -	Quercus palustris -	G3	S1	None	None	3	Y
Acidic Upland	Acer rubrum -	Acer rubrum -						
Depression Swamp	Liquidambar	Liquidambar						
	styraciflua /	styraciflua /						
	Vaccinium	Vaccinium						
	(fuscum,	(fuscum,						
	formosum) Forest	formosum) Forest						
Piedmont / Coastal	Tsuga canadensis -	Tsuga canadensis -	G2G3	S1	None	None	20	Y
Plain Hemlock -	Fagus grandifolia -	Fagus grandifolia -						
Hardwood Forest	Quercus (montana,	Quercus (montana,						
	alba) Forest	alba) Forest						
VASCULAR PLANTS								
Carolina Fanwort	Cabomba caroliniana	Cabomba caroliniana	G5	S1S2	None	None	9	Y
Small Whorled	Isotria medeoloides	Isotria medeoloides	G2G3	S2	LT	LE	70	Y
Pogonia								
Potomac River-Tank Creek								
LEPIDOPTERA (BUTTERFLIES & MOTHS)								
Frosted Elfin	Callophrys irus	Callophrys irus	G3	S1S2	None	None	27	Y
TERRESTRIAL NATURAL COMMUNITY								
Coastal Plain	Quercus phellos -	Quercus phellos -	G3	S2	None	None	19	Y
Depression Swamp	Acer rubrum -	Acer rubrum -						
(Willow Oak - Red	Liquidambar	Liquidambar						
Maple - Sweetgum	styraciflua /	styraciflua /						
Type)	Vaccinium	Vaccinium						
	(formosum,	(formosum,						
	fuscum) Forest	fuscum) Forest						
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynomene virginica	Aeschynomene virginica	G2	S2	LT	LT	22	Y
Round-leaf water-hyssop	Bacopa rotundifolia	Bacopa rotundifolia	G5	SH	None	None	2	Y
Quantico Creek								
AQUATIC NATURAL COMMUNITY								
NP-Lower Potomac	NP-Lower Potomac	NP-Lower Potomac	G2G3	S2S3	None	None	1	Y
First Order Stream	First Order Stream	First Order Stream						
NP-Lower Potomac	NP-Lower Potomac	NP-Lower Potomac	G2G3	S2S3	None	None	4	Y
Second Order Stream	Second Order Stream	Second Order Stream						

Common Name/Natural Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
HETEROPTERA (TRUE BUGS)	Sigara depressa	Sigara depressa	G1G2	S1S2	SOC	LE	4	Y
Water Boatman								
LEPIDOPTERA (BUTTERFLIES & MOTHS)								
Frosted Elfin	Callophrys irus	Callophrys irus	G3	S1S2	None	None	27	Y
Lemmer's Pinion Moth	Lithophane lemmeri	Lithophane lemmeri	G3G4	S1S3	None	None	1	Y
ODONATA (DRAGONFLIES & DAMSELFLIES)								
Common Spreading	Lestes disjunctus	Lestes disjunctus	G5	S2	None	None	6	Y
Sedge Sprite	Nehalennia irene	Nehalennia irene	G5	S1S2	None	None	2	Y
TERRESTRIAL NATURAL COMMUNITY								
Coastal Plain / Outer Piedmont Acidic Seepage Swamp	Acer rubrum - Nyssa sylvatica - Magnolia virginiana / Viburnum nudum / Osmundastrum cinnamomeum - Lorinseria areolata Forest	Acer rubrum - Nyssa sylvatica - Magnolia virginiana / Viburnum nudum / Osmundastrum cinnamomeum - Lorinseria areolata Forest	G3?	S3	None	None	40	Y
Northern Piedmont Acidic Upland Depression Swamp	Quercus palustris - Acer rubrum - Liquidambar styraciflua / Vaccinium fuscum, (formosum) Forest	Quercus palustris - Acer rubrum - Liquidambar styraciflua / Vaccinium fuscum, (formosum) Forest	G3	S1	None	None	3	Y
Piedmont / Coastal Plain Hemlock - Hardwood Forest	Tsuga canadensis - Fagus grandifolia - Quercus (montana, alba) Forest	Tsuga canadensis - Fagus grandifolia - Quercus (montana, alba) Forest	G2G3	S1	None	None	20	Y
VASCULAR PLANTS								
Velvet sedge	Carex vestita	Carex vestita	G5	S2	None	None	12	Y
Small Whorled Pogonia	Isotria medeoloides	Isotria medeoloides	G2G3	S2	LT	LE	70	Y
One-sided shinleaf	Orthilia secunda	Orthilia secunda	G5	SH	None	None	3	Y
Dwarf Chinquapin Oak	Quercus prinoides	Quercus prinoides	G5	S1	None	None	27	Y
Hard-stem bulrush	Schoenoplectus acutus var. acutus	Schoenoplectus acutus var. acutus	G5T5	S1	None	None	3	Y

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

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

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





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Nest Code: ST1301
Last Year Checked: 2016
Last Year Occupied: 2015
Distance from Project Area:
0.49 mile

Leaflet | CartoDB attribution, Tiles © Esri — Source: Esri, i-cubed, USDA, USGS

Travis A. Voyles
Secretary of Natural and Historic Resources

Frank N. Stovall
Deputy Director
for Operations

Matthew S. Wells
Director

Darryl Glover
Deputy Director for
Dam Safety,
Floodplain Management and
Soil and Water Conservation

Andrew W. Smith
Chief Deputy Director

Laura Ellis
Deputy Director for
Administration and Finance



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

June 7, 2024

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

Re: Phase II Aquia Harbour-Possum Point

Dear Mr. Gray:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Stafford Quadrangle

According to the information in our files, the Aquia Creek - Rt. 1 - Government Landing Stream Conservation Site (SCS) is located within the project area (Figure 1). SCSs encompass stream/river reaches, waterbodies, and terrestrial contributing areas containing or associated with aquatic or semi-aquatic resources, including upstream and downstream reaches and tributaries up to 3-km stream distance from the aquatic resources. The size and dimensions of a SCS are based on the hydrology of the waterway and surrounding landscape, taking into consideration dam locations and whether the waterway is tidal. SCSs are given a biodiversity significance ranking (B-rank) based on the rarity, quality, and number of natural heritage resources they contain. The Aquia Creek - Rt. 1 - Government Landing SCS has been given a B-rank of B2, which represents a site of very high significance. The natural heritage resources associated with this site are:

<i>Eriocaulon parkeri</i>	Parker's Pipewort	G3/S2/NL/NL
Aquatic Natural Community (NC-Lower Potomac Fourth Order Stream)		G1?/S1?/NL/NL
Aquatic Natural Community (NP-Lower Potomac Fourth Order Stream)		G1/S1/NL/NL

Parker's pipewort is classified as very rare to uncommon in Virginia. This diminutive pipewort species displays a greyish-white button flower and often occurs with other rare mudwort species in the intertidal zone of tidal regions from Maine to North Carolina. Potential threats include activities that alter natural river currents causing sedimentation, which could inhibit germination of seeds or smother seedlings, and/or erosion of the habitat. Other potential threats include activities that result in increased salinity levels, water pollution, and displacement by aggressive species (J. C. Ludwig, 1996). Surveys for this species should be conducted during the flowering / fruiting period from July to October. As of 2024, 18 occurrences of this state rare plant were documented by the Virginia Natural Heritage Program, 9 extant and 9 historic.

The documented Aquatic Natural Communities are based on Virginia Commonwealth University's **INSTAR** (*Interactive Stream Assessment Resource*) database which includes over 2,000 aquatic (stream and river) collections statewide for fish and macroinvertebrate. These data represent fish and macroinvertebrate assemblages, instream habitat, and stream health assessments. The associated Aquatic Natural Communities are significant on multiple levels. First, these streams are a grade B, per the VCU-Center for Environmental Sciences (CES), indicating their relative regional significance, considering their aquatic community composition and the present-day conditions of other streams in the region. These stream reaches also hold "Healthy" stream designations per the INSTAR Virtual Stream Assessment (VSS) score. This score assesses the similarity of these streams to ideal stream conditions of biology and habitat for this region. Lastly, these streams contribute to high Biological Integrity at the watershed level (6th order) based on number of native/non-native, pollution-tolerant/intolerant and rare, threatened or endangered fish and macroinvertebrate species present. Threats to the significant Aquatic Natural Communities and the surrounding watershed include water quality degradation related to point and non-point pollution, water withdrawal and introduction of non-native species.

To minimize adverse impacts to the aquatic ecosystems as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations, establishment/enhancement of riparian buffers with native plant species and maintaining natural stream flow.

Widewater Quadrangle, Quantico Quadrangle

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100-foot buffer. Please note, predictive models identifying potential habitat for natural heritage resources intersect the project boundary. However, based on DCR biologist's review of the proposed project a survey is not recommended for the resources.

All Quads

DCR also recommends the development and implementation of an invasive species plan to be included as part of the maintenance practices for the right-of-way (ROW). The invasive species plan should include an invasive species inventory for the project area based on the current DCR Invasive Species List (<https://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2023.pdf>) and methods for treating the invasives. DCR also recommends the ROW restoration and maintenance practices planned include appropriate revegetation using native species in a mix of grasses and forbs to the extent that it is consistent with erosion and sediment control requirements, robust monitoring, and an adaptive management plan to provide guidance if initial revegetation efforts are unsuccessful or if invasive species outbreaks occur.

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

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of \$250.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty

days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed at <https://services.dwr.virginia.gov/fwis/> or contact Hannah Schul at Hannah.Schul@dwr.virginia.gov.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,

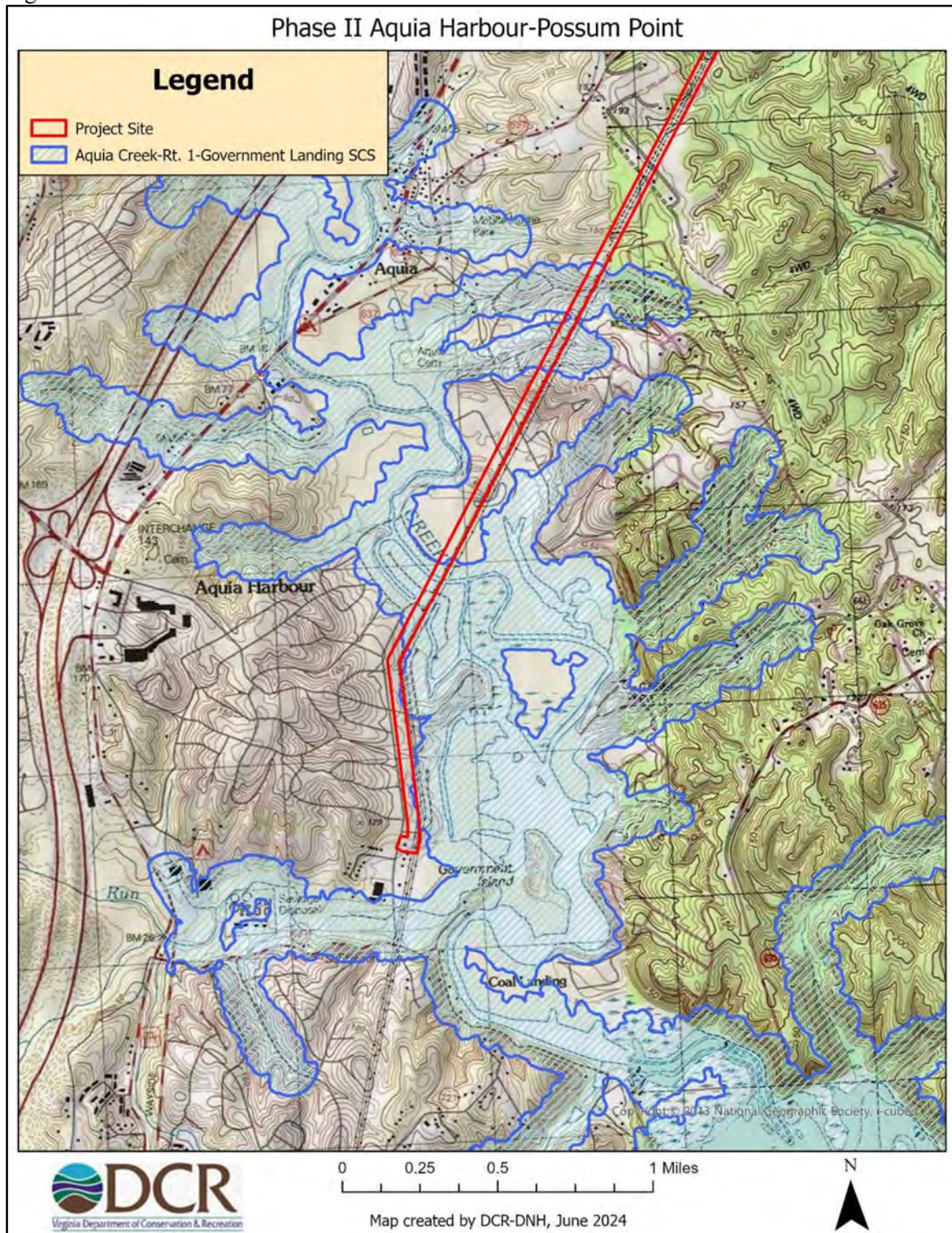
A handwritten signature in cursive script, appearing to read "Tyler Meader".

Tyler Meader
Natural Heritage Locality Liaison

Literature Cited

Ludwig, J. Christopher. 1996. Personal communication. Virginia Department of Conservation and Recreation, Division of Natural Heritage.

Figure 1.



*Commonwealth of Virginia**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY*

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

P.O. Box 1105, Richmond, Virginia 23218

(800) 592-5482

www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

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

February 27, 2024

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

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

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

Dear Ms. Hester:

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

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

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

1. Variance, exception, and deviation requests must be submitted to DEQ separately from this Annual Standards and Specifications' submission. DEQ may require project-specific plans associated with such requests to be submitted for review and approval.
2. The following information must be submitted to DEQ for each project at least two weeks in advance of the commencement of regulated land-disturbing activities. Notifications shall be sent by email to: StandardsandSpecs@deq.virginia.gov
 - a. Project name or project number;
 - b. Project location (including nearest intersection, latitude and longitude, access point);
 - c. On-site project manager name and contact info;

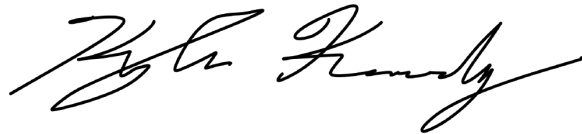
February 27, 2024
Page 2 of 2

- d. Responsible Land Disturber (RLD) name and contact info;
 - e. Project description;
 - f. Acreage of disturbance for project;
 - g. Project start and finish date; and
 - h. Any variances/exceptions/deviations associated with this project.
3. Project tracking of all regulated land disturbing activities (LDA) must be submitted to DEQ once per 6-month period. Project tracking records shall contain the same information as required in the two week e-notifications for each regulated LDA.
 4. Erosion & Sediment Control and Stormwater Management plans must be reviewed by DEQ-certified Plan Reviewers. Dominion Energy, as the AS&S holder, retains the authority to approve plans and must do so in writing. Should an AS&S holder contract out to a third-party to fulfill the plan review function, the third-party Plan Reviewer may recommend approval of the plan, but final approval must come from the AS&S holder.

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

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

Respectfully,

A handwritten signature in black ink, appearing to read 'Kyle Kennedy', with a stylized, flowing script.

Kyle Kennedy, Manager
Office of Stormwater Management

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



**Stage I Pre-Application Analysis
for the Proposed Dominion
Energy Virginia Aquia Harbour –
Possum Point Lines #29, #252,
#2083, and #568 Rebuild, Prince
William and Stafford Counties
and City of Fredericksburg,
Virginia**

July 29, 2024

Prepared for:

Dominion Energy Virginia
Attention: Blair Parks
5000 Dominion Boulevard, 3rd Floor
Glen Allen VA 23060
(804) 658-7316

Prepared by:

Sonja Lengel
Architectural Historian

and

Ellen Brady
Technical Discipline Leader, Cultural
and Social Sciences, US

Stantec Consulting Services Inc.
1011 Boulder Springs Drive, Suite 225,
Richmond VA 23225-4951
(804) 267-3474



STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA AQUIA HARBOUR – POSSUM POINT LINES #29, #252, #2083, AND #568 REBUILD, PRINCE WILLIAM AND STAFFORD COUNTIES AND CITY OF FREDERICKSBURG, VIRGINIA

This document entitled Stage I Pre-Application Analysis for the Proposed Dominion Energy Virginia Aquia Harbour – Possum Point Lines #29, #252, #2083, and #568 Rebuild, Prince William and Stafford Counties and City of Fredericksburg, Virginia was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of Dominion Energy Virginia (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.



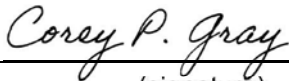
Prepared by _____
(signature)

Sonja Lengel, Architectural Historian



Reviewed by _____
(signature)

Ellen Brady, RPA Technical Discipline Leader, Cultural and Social Sciences, US



Approved by _____
(signature)

Corey Gray, Senior Environmental Scientist, Project Manager



**STAGE I PRE-APPLICATION ANALYSIS FOR THE PROPOSED DOMINION ENERGY VIRGINIA
AQUIA HARBOUR – POSSUM POINT LINES #29, #252, #2083, AND #568 REBUILD, PRINCE
WILLIAM AND STAFFORD COUNTIES AND CITY OF FREDERICKSBURG, VIRGINIA**

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1.2 STAGE I PRE-APPLICATION ANALYSIS	1.3
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Executive Summary

Stantec Consulting Services Inc. (Stantec) was retained by Dominion Energy Virginia (Dominion) to conduct a Stage I Pre-Application Analysis for the rebuilding of its Aquia Harbour to Possum Point transmission corridor. The Project begins at the Aquia Harbour Switching Station in Stafford County, Virginia and extends north for 11.9 miles, terminating at the Possum Point switchyard, in Prince William County, Virginia. The project also includes 0.7 mile of transmission corridor in the City of Fredericksburg.

The project comprises rebuilding, primarily within existing right-of-way or on Company-owned property, approximately 11.4 miles of 115 kilovolt (“kV”) Line #29 on double circuit monopole structures utilizing current 230 kV standards, between the Company’s existing Aquia Harbour Switching Station (“Aquia Harbour Station”) and Structure #252/5583 (#29/1857). The Company proposes to rebuild the 0.2-mile segment between Structure #252/5568 and Fuller Road Substation using an additional 50 feet of right-of-way. The Project will predominantly take place within the existing, cleared and maintained transmission line right-of-way; however, some additional ROW clearing may be needed in some areas. The Rebuild Project includes:

- (i) Rebuilding, primarily within existing right-of-way (ROW) or on Dominion-owned property, approximately 11.4 miles of 115 kilovolt (“kV”) Line #29 on double circuit monopole structures utilizing current 230 kV standards, between Dominion’s existing Aquia Harbour Switching Station (Aquia Harbour Station) and Structure #252/5583 (#29/1857). Dominion proposes to rebuild the 0.2-mile segment between Structure #252/5568 and Fuller Road Substation using an additional 50 feet of right-of-way.
- (ii) Removing approximately 0.6 miles of 115 kV Line #29 from Structure #252/5583 to Dominion’s existing Possum Point 115 kV Switchyard.
- (iii) Relocating and rebuilding, entirely within existing right-of-way or on Dominion-owned property, approximately 6.8 miles of 500 kV Line #568 on single circuit monopole structures, between Aquia Harbour Station and Possum Point Station.
- (iv) Rebuilding, entirely within existing right-of-way or on Dominion-owned property, approximately 0.7 mile of 230 kV Line #2083 on double circuit monopole structures (with vacant arms) between Dominion’s Fredericksburg Substation to Hospital Junction located within the City of Fredericksburg.

(collectively, the “Rebuild Project”).



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All proposed structure heights and locations provided in this report are based upon preliminary engineering and are subject to final design.

Background research for the Stage I Pre-Application Analysis was conducted in May 2024 by Stantec staff. The preliminary background research and a field study was conducted pursuant to the *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (Virginia Department of Historic Resources [DHR] 2008) for proposed transmission line improvements.

As detailed by DHR 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 Rebuild Project ROW.

Recommendations - Aquia Harbour-Possum Point

Architectural Resources

Three individual architectural resources, three historic districts, and one Civil War battlefield were considered for visual effects for the proposed Aquia Harbour – Possum Point segment of the Rebuild Project (Appendix B). One resource, Aquia Church, is an NHL, three are listed in the NRHP, one is eligible for listing in the NRHP, and one has been determined potentially eligible for listing in the NRHP. Camp French, a Civil War period archaeological site listed in the NRHP is located within the analysis area but was not further considered for visual effects. The resources are further described below along with a discussion and recommendation of potential effects resulting from the Rebuild Project (Appendix B).

Based on preliminary proposed structure heights, the proposed Line #2083 Rebuild Project will have No Visual Impact to Aquia Church (DHR #089-0008), Brent Cemetery (DHR #089-0069), and Chopawamsic Recreation Demonstration Area/ Prince William Forest Park Historic District (DHR #076-0299). The proposed Aquia Harbour to Possum Point Rebuild Project will have a Minimal Visual Impact on the Aquia Creek Quarry/Brent's Island (DHR #089-0103), Quantico Marine Corps Base Historic District (DHR #287-0010), Richmond Fredericksburg & Potomac Railroad and Historic District (DHR #076-0301/DHR #500-0001), and the Cockpit Point Battlefield (DHR #076-5842).

Previously Recorded Architectural Resources Considered Under the Stage I Pre-Application Guidelines – Aquia Harbour-Possum Point

DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
076-0299	Chopawamsic Recreation Demonstration Area/ Prince William Forest Park Historic District	Listed in NRHP in 2012; Listed in VLR in 2010	2,730	None



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DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
076-0301/500-0001	Richmond, Fredericksburg & Potomac Railroad	Determined Potentially Eligible by DHR in 2016; Contributing to DHR #500-0001 (Determined Eligible for Listing in the NRHP by VDHR in 2018)	0	Minimal
076-5842	Cockpit Point Battlefield	Not Evaluated	0	Minimal
076-5313	Camp French (Historic)	Listed in NRHP and VLR in 2008	2,037	NA
089-0008	Aquia Church	Listed NRHP and VLR in 1969; NHL in 1991	4,017	None
089-0069	Brent Cemetery	Eligible by DHR in 1988	2,216	None
089-0103	Aquia Creek Quarry/Brent's Island	NRHP-Listed in 2007	1,698	Minimal
287-0010	Quantico Marine Corps Base Historic District	NRHP-Listed 2001	4,428	Minimal

Archaeological Resources

Thirteen previously recorded archaeological resources are located either within or immediately adjacent to the Rebuild Project ROW (Table 6; Appendix D). Site 44PW1106. Intersected by the project ROW, has been determined eligible for listing in the NRHP and two resources have been determined not eligible for listing in the NRHP. The remaining 10 archaeological resources have not been evaluated for listing in the NRHP. ***It is recommended that the previously recorded archaeological sites be investigated and evaluated as appropriate during future investigations.***

Previously Recorded Archaeological Resources Considered under the Stage I Pre-Application Guidelines – Aquia Harbour-Possum Point

DHR #	Resource Name	NRHP Status	Closest Existing Structure #	Distance to Closest Structure (Feet)	Recommendation
44PW0386	Pre-Contact/Unknown	Not Evaluated	252/5880; 29/1847	0	Investigate During Archaeological Survey
44PW0387	Pre-Contact/Unknown	Not Evaluated	252/5881; 29/1848	230	Investigate During Archaeological Survey
44PW0392	Pre-Contact/Unknown	Not Evaluated	252/5882;	145	Investigate During Archaeological Survey
44PW0439	Middle Archaic	Not Evaluated	252/5883;	0	Investigate During Archaeological Survey
44PW0442	Pre-Contact/Unknown	Not Evaluated	29/1851	0	Investigate During Archaeological Survey
44PW1106	Late Archaic Period, Antebellum Period, Civil War, Reconstruction and Growth	DHR Determined Eligible in 2017	252/5562 29/1829	0	Investigate During Archaeological Survey
44PW1288	Late Archaic	Not Evaluated	252/5548 29/1815	0	Investigate During Archaeological Survey



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DHR #	Resource Name	NRHP Status	Closest Existing Structure #	Distance to Closest Structure (Feet)	Recommendation
44PW1665	World War I to World War II, The New Dominion	Not Evaluated	252/5564 29/183	0	Investigate During Archaeological Survey
44ST0303	Pre-Contact/Unknown 19th Century: 4th quarter, 20th Century: 1st half	Not Evaluated	252/5543 29/1810	330	Investigate During Archaeological Survey
44ST0375	Pre-Contact/Unknown	Not Eligible	252/5540 29/1807	220	Investigate During Archaeological Survey
44ST0595	Late Archaic , Middle Woodland	Not Eligible	252/5540 29/1807	182	Investigate During Archaeological Survey
44ST1144	Pre-Contact/Unknown	Not Evaluated	252/5546 29/1813	199	Investigate During Archaeological Survey
44ST1145	Pre-Contact/Unknown	Not Evaluated	252/5546 29/1813	65	Investigate During Archaeological Survey

Recommendations - Line #2083

Architectural Resources

Twelve individual architectural resources, four historic districts, and four battlefield resources are located within the analysis area for visual effects for the Line #2083 segment of the Rebuild Project (Appendix B). One NRHP-listed archaeological site (DHR #089-0006) is located within the analysis area but not within the Rebuild Project ROW and has been documented as destroyed. This resource was not considered for visual effects. Of the resources assessed for potential visual effects, there are four NHLs, 11 NRHP-listed resources, two NRHP-eligible resources, and two potentially NRHP-eligible resources.

Based on preliminary proposed structure heights, the proposed Line #2083 Rebuild Project will have No Visual Impact to Brompton (DHR #111-0008), John Lewis House/Rowe House/War Hospital (DHR #111-0107), Carl's Frozen Custard Stand (DHR #111-5007), Fredericksburg City and Confederate Cemeteries (DHR #111-5265), Elmhurst (DHR #111-5267), Belmont/Gari Melchers Home (DHR #089-0022), James Monroe Law Office (DHR #111-0066), Eagle Tavern/Rising Sun Tavern (DHR #111-0088), Fredericksburg Historic District (DHR #111-0132), Washington Avenue Historic District (DHR #111-5262), Chancellorsville Battlefield (DHR #088-5180), and Falmouth Historic District (DHR #089-0067). The proposed Line # 2083 Rebuild Project will have a Minimal Visual Impact on the Kenmore Plantation/Millbrook (DHR #111-0047), Fall Hill (DHR #111-0149), Allman's Bar-B-Que (DHR #111-5473), Fredericksburg and Spotsylvania Battlefields National Military Park (DHR #111-0147), Battle of Fredericksburg I (DHR #111-5295), and Battle of Fredericksburg II (DHR #111-5296).



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**Previously Recorded Architectural Resources Considered for the Stage I Pre-Application Process
Line #2083**

DHR #	Resource Name	DHR/NRHP Status	Distance to Centerline (Feet)	Impact
089-0006/ 44ST0007	Hunter's Iron Works	NRHP listed 1974 and VLR Listed 1973	3,250	NA
111-0008	Brompton	NRHP and VLR Listed 1979	4,447	None
111-0047	Kenmore Plantation/Millbrook	NRHP and VLR Listed 1969, NHL 1970;	4,606	Minimal
111-0107	John Lewis House/Rowe House/War Hospital	NRHP and VLR Listed 2008	5,112	None
111-0149	Fall Hill	NRHP and VLR Listed 1973	1,342	Minimal
111-5007	Carl's Frozen Custard Stand	VLR Listed 2000; NRHP Listed 2005	3,982	None
111-5265	Fredericksburg City and Confederate Cemeteries	VLR Listed 2018; NRHP Listed 2019	4,380	None
111-5267	Elmhurst	VLR Listed 2007; NRHP Listed 2008	3,626	None
111-5473	Allman's Bar-B-Que	Determined Eligible 2022 (DHR)	556	Minimal
089-0022	Belmont/Gari Melchers Home	NHL 1965, NRHP Listed 1966	4,068	None
111-0066	James Monroe Law Office	NHL 1966, NRHP Listed 1966, VLR Listed 1969	6,184	None
111-0088	Eagle Tavern/Rising Sun Tavern	NHL 1964, NRHP Listed 1966, VLR Listed 1969	6,103	None
111-0132	Fredericksburg Historic District	VLR and NRHP Listed 1971	5,132	None
111-0147	Fredericksburg and Spotsylvania Battlefields National Military Park	VLR Listed 1973; NRHP Listed 1966; expanded boundaries 2018	1,539	Minimal
111-5262	Washington Avenue Historic District	VLR Listed 2001; NRHP Listed 2002	3,864	None
088-5180	Chancellorsville Battlefield	DHR Eligible 2022	2,617	None
088-5181	Bank's Ford/Salem Church Battlefield	DHR Eligible 2022	0	Minimal
111-5295	Battle of Fredericksburg I	DHR Potentially Eligible 2017	0	Minimal
111-5296	Battle of Fredericksburg II	DHR Potentially Eligible 2007	0	Minimal
089-0067	Falmouth Historic District	Listed VLR 1967; NRHP 1970	4,331	None

Archaeological Resources Line #2083

No previously recorded archaeological resources are located within the Project Rebuild ROW.



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Abbreviations

ABPP	American Battlefield Protection Program
amsl	Above Mean Sea Level
DEM	Digital Elevation Model
DSM	Digital Surface Model
Dominion Energy	Dominion Energy Virginia
kV	Kilovolt
NERC	North American Electric Reliability Corporation
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
ROW	Right-of-Way
SCC	State Corporation Commission
Stantec	Stantec Consulting Services, Inc.
USDI	United States Department of the Interior
V-CRIS	Virginia Cultural Resources Information System
VLR	Virginia Landmarks Register
VDHR	Virginia Department of Historic Resources



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1.0 INTRODUCTION

1.1 OVERVIEW

Stantec Consulting Services Inc. (Stantec) was retained by Dominion Energy Virginia (Dominion) to conduct a Stage I Pre-Application Analysis for the rebuilding of its Aquia Harbour to Possum Point transmission corridor. The Project begins at the Aquia Harbour Switching Station in Stafford County, Virginia and extends north for 11.9 miles, terminating at the Possum Point switchyard, in Prince William County, Virginia. The project also includes 0.7 mile of transmission corridor in the City of Fredericksburg.

The project comprises rebuilding, primarily within existing right-of-way or on Company-owned property, approximately 11.4 miles of 115 kilovolt (“kV”) Line #29¹ on double circuit monopole structures utilizing current 230 kV standards, between the Company’s existing Aquia Harbour Switching Station² (“Aquia Harbour Station”) and Structure #252/5583 (#29/1857). The Company proposes to rebuild the 0.2-mile segment between Structure #252/5568 and Fuller Road Substation using an additional 50 feet of right-of-way. For the purposes of the State Corporation Commission (SCC) filing, this segment of the Project also includes rebuilding a 0.7-mile portion of the existing Line #2083 on double-circuit 230kV structures from Fredericksburg Substation to Hospital Junction in the City of Fredericksburg. The Project will predominantly take place within the existing, cleared and maintained transmission line right-of-way; however, some additional ROW clearing may be needed in some areas. The Rebuild Project includes:

The Rebuild Project includes:

- (i) Rebuilding, primarily within existing right-of-way (ROW) or on Dominion-owned property, approximately 11.4 miles of 115 kilovolt (“kV”) Line #29 on double circuit monopole structures utilizing current 230 kV standards, between Dominion’s existing Aquia Harbour Switching Station (Aquia Harbour Station) and Structure #252/5583 (#29/1857). Dominion proposes to rebuild the 0.2-mile segment between Structure #252/5568 and Fuller Road Substation using an additional 50 feet of right-of-way.
- (ii) Removing approximately 0.6 miles of 115 kV Line #29 from Structure #252/5583 to Dominion’s existing Possum Point 115 kV Switchyard.
- (iii) Relocating and rebuilding, entirely within existing right-of-way or on Dominion-owned property, approximately 6.8 miles of 500 kV Line #568 on single circuit monopole structures, between Aquia Harbour Station and Possum Point Station.

¹ The segments of Line #29 that will be rebuilt as part of the Rebuild Project will be renamed to Line #2309.

² This Appendix discusses two different facilities with similar names: the Aquia Harbour Switching Station and the Aquia Substation. Both are discussed in detail in Section I.C.



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- (iv) Rebuilding, entirely within existing right-of-way or on Dominion-owned property, approximately 0.7 mile of 230 kV Line #2083 on double circuit monopole structures (with vacant arms) between Dominion’s Fredericksburg Substation to Hospital Junction located within the City of Fredericksburg.
- (v) At Fuller Road Substation, (1) installing one 84 Megavolt-amperes (“MVA”) 230 kV-115 kV transformer and in-service spare; (2) installing a four-breaker 230 kV ring bus to interconnect with Line #252, creating new Line #2309 (Aquia Harbour-Fuller Road); and (3) uprating switches and other line equipment to 4000 Amperes (“A”).

(collectively, the “Rebuild Project”).

Currently the section of the Rebuild Project from Aquia Harbour Station to Structure 252/5556 consists of double circuit weathering steel lattice towers supporting existing Line #29 and #252 and single circuit galvanized steel towers supporting Line #568³. As such, there are two parallel rows of structures within the ROW. After the completion of the Rebuild Project, there will be three parallel rows of structures within the ROW, consisting of Lines #2309 and #252 co-located on double circuit weathering steel monopole structures, two yet unnumbered 230 kV circuits (2XXX and 2YYY) co-located on double circuit weathering steel monopole structures, and the rebuild Line #568 on weathering steel monopoles (see Appendix A). From existing Structure 252/5556 to Structure 252/5583, existing Line #29 and #252 are supported on double circuit weathering steel lattice towers. This will be rebuilt with the renumbered Line #2309 and #252 co-located on double circuit weathering steel monopoles and the two yet unnumbered 230 kV circuits (2XXX and 2YYY) co-located on double circuit weathering steel monopoles (see Appendix A). East of existing structure 252/5583, existing Lines #29 and #252 split with Line #252 taking a northerly route to the Possum Point 230 kV Substation on single circuit weathering steel h-frame and 3-pole structures, while Line #29 takes a southerly route to the Possum Point 115 kV Substation on single circuit wooden h-frame structures. As part of the Rebuild Project, Lines #2309 and #252 will be co-located on double circuit weathering steel monopoles within the northerly route to the Possum Point 230 kV Substation, while the two new unnumbered 230 kV lines (2XXX and 2YYY) will be co-located on double circuit weathering steel monopoles on the southerly route, ultimately also terminating at the Possum Point 230 kV Substation. Altogether, the portion of the Rebuild Project from Aquia Harbour to Possum Point is referred to as “Aquia Harbour - Possum Point” within this Stage I analysis.

Currently the section of the Rebuild Project from Fredericksburg Substation to Hospital Junction consists of double circuit weathering steel monopoles (Lines #2157 and #2083) and single circuit wooden h-frames (Line #29). As such, there are currently two parallel rows of structures in the existing ROW. As part of SCC Case #PUR-2024-00035, Dominion has proposed to rebuild Lines #2157 and #29 on double circuit weathering steel monopole structures along with two yet unnamed 230 kV circuits on double circuit weathering steel monopole structures (2XXX and 2YYY). Potential effects to historic resources from that

³ The rebuild of Line #29 and #2104 from Fredericksburg to Aquia Harbour, including several Line #568 rebuilds around Aquia Harbour Station, is currently under consideration by the SCC in Case #PUR-2024-00035. Potential effects to historic resources from this project was evaluated in the Stage I prepared for that case, DHR File No. 2024-3541.



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project have been considered under the Stage I prepared for that case (DHR File No. 2024-3541); however, those structures are depicted on mapping in the Stage I for the Rebuild Project for informational purposes and to consider cumulative effects. The Rebuild Project will involve the rebuild of Line #2083 on double circuit weathering steel monopole structures co-located with a yet unnamed 230 kV circuit (ZZZZ). Therefore, with the completion of the work under PUR-2024-00035 and the Rebuild Project, there will be three parallel double circuit 230 kV monopole lines from Fredericksburg Substation to Hospital Junction (see Appendix A). This section of the Rebuild Project is referred to as “Line #2083” within this Stage I analysis.

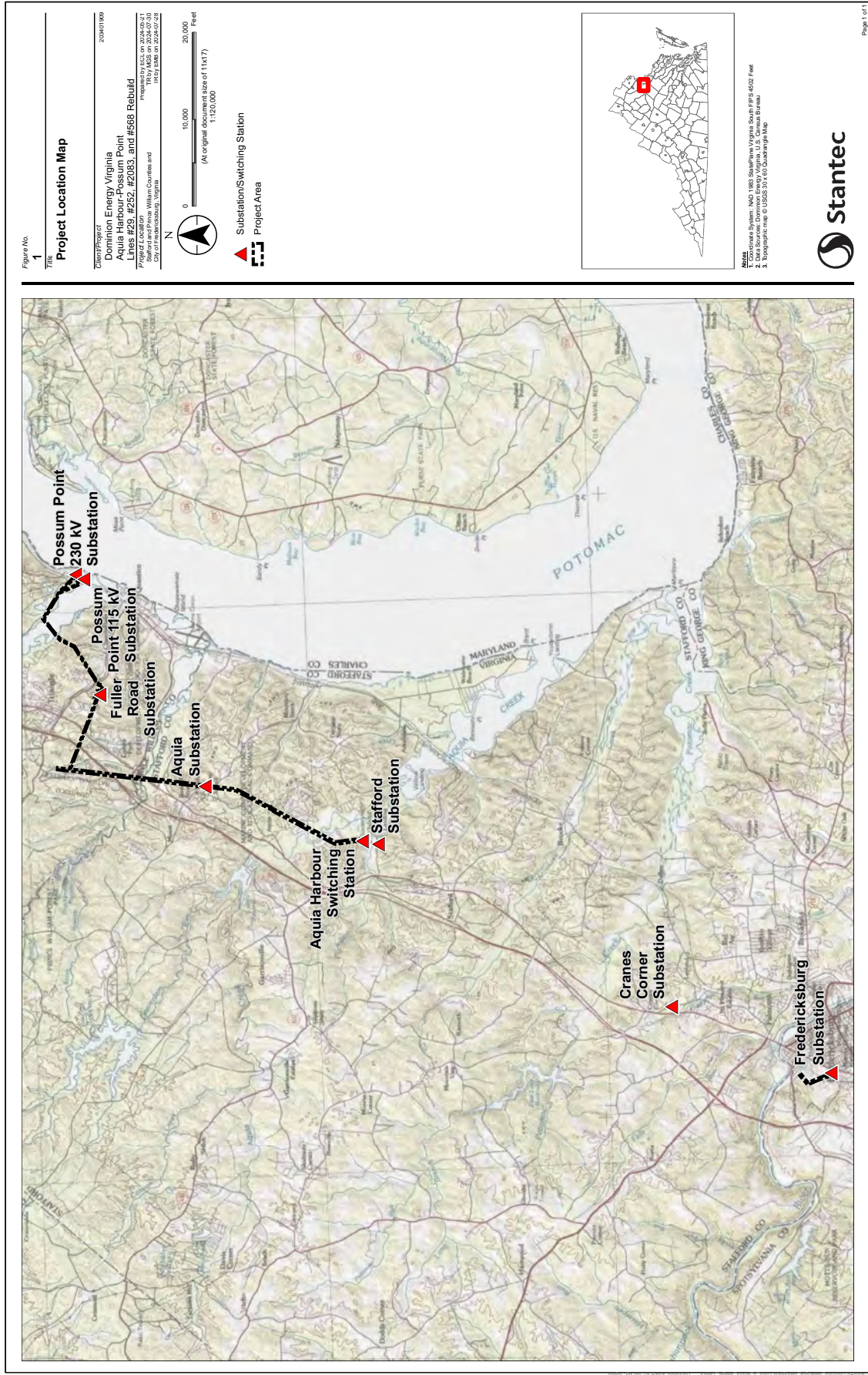
1.2 STAGE I PRE-APPLICATION ANALYSIS

The *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (Virginia Department of Historic Resources [DHR] 2008) were developed by the DHR to assist the SCC and their applicants to address and minimize potential impacts to historic resources associated with the construction of large-scale transmission lines and associated facilities. In consideration of the general project design, as described above, and other elements associated with the proposed undertaking, including current right-of-way ROW conditions within the proposed project area, Stantec designed the present study to identify all previously recorded architectural and archaeological resources requiring inclusion in a formal Stage I Pre-Application Analysis, as defined by the 2008 *Guidelines*.

As detailed by DHR guidance, consideration was given to National Historic Landmark (NHL) properties located within a 1.5-mile radius of the project centerline; National Register of Historic Places (NRHP)-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible sites located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW. This document includes a viewshed analysis to address potential visual impacts to the eight resources considered during the Stage I study.

This Stage I Pre-Application Analysis project was directed by Senior Regulatory Specialist Corey Gray and the report authored by Architectural Historian Sonja Lengel. The visual effects survey was conducted by Assistant Architectural Historian Olivia McCarty under the supervision of Senior Architectural Historian Sandra DeChard. Olivia McCarty photographed the resource viewsheds and Audrey Cropp prepared the photo simulations. Visual modeling was prepared by GIS Coordinator, Melissa Sanderson and support graphics were prepared by GIS Coordinator Melissa Sanderson, GIS Analyst Elise Ljiko and Environmental Scientist Jordan Bryant.





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2.0 BACKGROUND RESEARCH

As part of the Stage I Pre-Application Analysis effort, DHR guidance recommends a four-tier study area strategy to be considered for each alternative alignment for the proposed undertaking (Table 1). Per this guidance consideration was given to NHL properties located within a 1.5-mile radius of the project centerline; NRHP-listed properties, battlefields, and historic landscapes located within a 1.0-mile radius of the project centerline; NRHP-eligible resources located within a 0.5-mile radius of the project centerline; and archaeological sites located within the project ROW.

Table 1 Study Areas as Defined by DHR Guidelines for Transmission Lines

Radial Buffer (in miles)	Considered Resources
1.5	National Historic Landmarks
1.0	Above resources and: National Register Properties (listed), Battlefields, Historic Landscapes (e.g. Rural HD)
0.5	Above resources and: National Register-eligible (as determined by DHR)
0.0 (Within ROW)	Above resources and Archaeological Sites

The background research included a review of the DHR archives and of data collected from the DHR's Virginia Cultural Resource Information System (V-CRIS) database using the most current data as provided by the DHR. The DHR files of archaeological sites and historic structures were examined and information was retrieved on all archaeological sites located up to a 0.5-mile radius of the project area and all previously recorded architectural resources up to a 1.5-mile radius of the project centerline. Esri ArcGIS Online aerial photography of current conditions was examined for the entire project area. Photographs of each architectural resources' viewshed were taken from the public ROW.

2.1 RESULTS OF THE BACKGROUND RESEARCH - AQUIA HARBOUR - POSSUM POINT

2.1.1 Architectural Resources

There is one NHL-listed architectural resource within the 1.5-mile buffer. There are three NRHP-listed architectural resources within the 1.0-mile buffer (DHR #076-0299, DHR #089-0008, and DHR #287-0010). One NRHP-eligible resource (DHR #089-0069) and one NRHP-listed resource (DHR #089-0193) are located within the 0.5-mile buffer. Within the ROW, there is one potentially NRHP-eligible architectural resource (DHR #076-0301) (Appendix B). See Table 2 for a listing of the architectural resources considered for the Line #2083Rebuild Project.



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Table 2 Previously Recorded Architectural Resources Considered Under the Stage I Pre-Application Guidelines: Line #29, Line #252, Line #568

DHR #	Resource Name	DHR/NRHP Status	Closest Existing Structure(s)	Distance to Centerline (Feet)
076-0299	Chopawamsic Recreation Demonstration Area/ Prince William Forest Park Historic District	Listed in NRHP in 2012; Listed in VLR in 2010	568/37	2,730
076-0301/500-0001	Richmond, Fredericksburg & Potomac Railroad	Determined Potentially Eligible by DHR in 2016; Contributing to DHR #500-0001 (Determined Eligible for Listing in the NRHP by VDHR in 2018)	252/5586; 291/1854	0
076-5842	Cockpit Point Battlefield	Not Evaluated	Various	0
076-5313	Camp French (Historic)	Listed in NRHP and VLR in 2008	252/5573	2,037
089-0008	Aquia Church	Listed NRHP and VLR in 1969; NHL in 1991	2309/5521	4,017
089-0069	Brent Cemetery	Eligible by DHR in 1988	2309/5525	2,216
089-0103	Aquia Creek Quarry/Brent's Island	NRHP-Listed in 2007	252/5517	1,698
287-0010	Quantico Marine Corps Base Historic District	NRHP-Listed 2001	29/1854	4,428

2.1.2 Archaeology Resources

Thirteen previously recorded archaeological resources are located either within or immediately adjacent to the Rebuild Project ROW (Table 3; Appendix C). Site 44PW1106. Intersected by the project ROW, has been determined eligible for listing in the NRHP and two resources have been determined not eligible for listing in the NRHP. The remaining 11 archaeological resources have not been evaluated for listing in the NRHP (Table 3).

Table 3 Previously Recorded Archaeological Resources Considered Under the Stage I Pre-Application Guidelines: Line #29, Line #252, Line #568

DHR #	Resource Name	NRHP Status	Closest Existing Structure #	Distance to Closest Structure (Feet)
44PW0386	Pre-Contact/Unknown	Not Evaluated	252/5880; 29/1847	0
44PW0387	Pre-Contact/Unknown	Not Evaluated	252/5881; 29/1848	230
44PW0392	Pre-Contact/Unknown	Not Evaluated	252/5882;	145
44PW0439	Middle Archaic	Not Evaluated	252/5883;	0
44PW0442	Pre-Contact/Unknown	Not Evaluated	29/1851	0
44PW1106	Late Archaic Period, Antebellum Period, Civil War, Reconstruction and Growth	DHR Determined Eligible in 2017	252/5562 29/1829	0
44PW1288	Late Archaic	Not Evaluated	252/5548 29/1815	0
44PW1665	World War I to World War II, The New Dominion	Not Evaluated	252/5564 29/183	0



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DHR #	Resource Name	NRHP Status	Closest Existing Structure #	Distance to Closest Structure (Feet)
44ST0303	Pre-Contact/Unknown 19th Century: 4th quarter, 20th Century: 1st half	Not Evaluated	252/5543 29/1810	330
44ST0375	Pre-Contact/Unknown	Not Eligible	252/5540 29/1807	220
44ST0595	Late Archaic (, Middle Woodland	Not Eligible	252/5540 29/1807	182
44ST1144	Pre-Contact/Unknown	Not Evaluated	252/5546 29/1813	199
44ST1145	Pre-Contact/Unknown	Not Evaluated	252/5546 29/1813	65

2.2 RESULTS OF THE BACKGROUND RESEARCH - LINE #2083

2.2.1 Architectural Resources

There are four NHLs (DHR #089-0022, DHR #111-0047, DHR #111-0066, and DHR #111-0088) within 1.5 miles of the Line #2083 portion of the Rebuild Project. There are 11 NRHP-listed resources located within the 1.0-mile buffer. Of the 11, there are three historic districts (DHR #089-0067, DHR #111-0132, and DHR #111-5262), two Civil War period battlefields, and six individually listed resources. Also considered during the Stage 1 within the 0.5-mile buffer are three VLR and NRHP-eligible resources and two potentially NRHP-eligible Civil War battlefields, both of which are crossed by the transmission line corridor (Table 4).

Table 4 Architectural Resources Considered under the Stage I Pre-Application Guidelines: Line #2083

DHR #	Resource Name	NRHP Status	Closest Existing Structure(s)	Distance to Centerline (Feet)
111-5473	Allman's Bar-B-Que	DHR Eligible 2022	2157/5398	556
111-5296	Battle of Fredericksburg II	DHR Potentially Eligible 2007	Various	0
111-5295	Battle of Fredericksburg I	DHR Potentially Eligible 2017	Various	0
111-5267	Elmhurst	VLR Listed 2007; NRHP Listed 2008	2083/9	3626
111-5265	Fredericksburg City and Confederate Cemeteries	VLR Listed 2018; NRHP Listed 2019	29/1676	4380
111-5262	Washington Avenue Historic District	VLR Listed 2001; NRHP Listed 2002	29/1676	3864
111-5007	Carl's Frozen Custard Stand	VLR Listed 2000; NRHP Listed 2005	2083/9	3982
111-0149	Fall Hill	VLR and NRHP Listed 1973	2157/5405	1342
111-0147	Fredericksburg and Spotsylvania Battlefields National Military Park	VLR Listed 1973; NRHP Listed 1966; expanded boundaries 2018	2157/5405	1539
111-0132	Fredericksburg Historic District	VLR and NRHP Listed 1971	29/1676	5132
111-0107	John Lewis House/Rowe House/War Hospital	VLR and NRHP Listed 2008	2157/5398	5112



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DHR #	Resource Name	NRHP Status	Closest Existing Structure(s)	Distance to Centerline (Feet)
111-0088	Eagle Tavern/Rising Sun Tavern	NHL 1964, NRHP Listed 1966, VLR Listed 1969	29/1676	6103
111-0066	James Monroe Law Office	NHL 1966, NRHP Listed 1966, VLR Listed 1969	29/1676	6184
111-0047	Kenmore Plantation/Millbrook	NHL 1970; NRHP and VLR Listed 1969	29/1676	4606
111-0008	Brompton	VLR and NRHP Listed 1979	2157/5398	4447
089-0067	Falmouth Historic District	VLR Listed 1967; NRHP 1970	2083/9	4140
089-0022	Belmont Gari Melchers Home	NHL 1965, NRHP Listed 1966	2083/9	4068
089-0006/ 44ST0007	Hunter Iron Works	VLR Listed 1973; NRHP listed 1974	2083/9	3,458
088-5181	Bank's Ford/Salem Church Battlefield	DHR Eligible 2022; Federal Determination of Eligibility 2000	Various	0
088-5180	Chancellorsville Battlefield	DHR Eligible 2022	2157/5398	2617

2.2.2 Archaeology Resources

There are no previously identified archaeological resources located within or immediately adjacent to the ROW.



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3.0 STAGE I PRE-APPLICATION ANALYSIS RESULTS

3.1 VISUAL EFFECTS METHODOLOGY

Fieldwork for the proposed transmission line project was conducted by Stantec's Assistant Architectural Historian Olivia McCarty under the direction of Stantec's Senior Architectural Historian Sandra DeChard from January 23 to 28, 2023 and February 8 to 9, 2023. The fieldwork for the assessment entailed photographing the resources requiring viewshed analysis according to the Stage I Pre-Application guidelines and examining the potential views from the resources towards the proposed transmission line improvements. As the fieldwork was conducted prior to a formal SCC application submittal, all photographs were taken from public ROW locations with aerial photography utilized to supplement the analysis of project visibility and potential visual effects. The following paragraphs detail the methodologies utilized for the Stage I for the Aquia Harbour – Possum Point and Line #2083 sections of the Rebuild Project.

The Aquia Harbour-Possum Point section of the Rebuild Project entails the replacement of the individual structures associated with Lines 252 and 29 by new structures associated with Line #252 and Line #29, renumbered as #2309. Additionally, two new circuits, currently not numbered and therefore designated as Line #2XXX and #2YYY, will be built within the existing ROW. These new structures will therefore not be a one-for-one replacement of an existing structure. Line #568 will be replaced with a new structure in a slightly different location than the existing structure. Given the close proximity of the new structures to the existing structures, the change in height between the structures was used for a point of reference to assess potential visual effects. Figures found in Appendix C illustrate the proposed structures in yellow and the existing Structures in light gray.

Line #2083 is the rebuild of existing 230 kV Line #2083 along with a new, unnumbered circuit (2ZZZ) on double circuit monopole structures within the existing ROW. As described in Section 1.1, existing Lines #29 and #2157 are being rebuilt under SCC Case PUR-2024-0003 along with double circuit structures for two unnumbered 230 kV circuits. Proposed Line #2083 is not a one-for-one replacement of any existing line as the new structures will be built on the other side of the ROW from existing Line #2083 structures and all existing structures in the ROW will be rebuilt under SCC Case PUR-2024-00035. Therefore, the existing structures for Line #2157 were used as a point of reference to assess potential visual effects since these existing structures are currently double circuit weathering steel monopoles and are similar in terms of height, material, and design to the proposed structures. Figures found in Appendix C depict the proposed Line #2083 structures in yellow and the existing structures as a light gray to indicate their location and presence. While the proposed Line #2157/#2305 structures and structures for yet unnumbered 230 kV lines (2XXX and 2YYY) are shown on the figures and considered from a standpoint of cumulative effects, the analysis does not evaluate their direct effect as this was done in the analysis under Case PUR-2024-00035.

A detailed viewshed was modeled for the existing and proposed structures for both segments of the Rebuild Project. This analysis required the creation of two datasets, a digital elevation model (DEM)



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which provided base ground elevations, and a digital surface model (DSM) which provided overall elevations for features on the terrain, such as trees and buildings. Using the existing structure heights and preliminary proposed structure heights provided by Dominion, two viewshed analyses were run using these datasets to determine where the existing and proposed structures are or will be visible in the landscape surrounding the proposed transmission line improvements. The visibility is illustrated by three color shadings:

- Orange - where both existing and proposed structures are/will be visible,
- Burgundy - where the existing structures are visible, but the proposed structures will not be, and
- Blue - where the existing structures are not visible, but the proposed structures will be.

3.1.1 Battlefield Resources

Battlefields and associated fortifications present within the limits of the Stage I analysis area were considered for visual effects for the Rebuild Project. Portions of five battlefield resources are located within the Stage I buffers and are listed in Table 5 (see also Appendices B and C). Many of the Civil War battlefields overlap significantly, particularly in the location of roads. Therefore, many of the photograph locations presented in Appendix C are shared by multiple resources.

Table 5 Battlefield Resources Considered under the Stage I Pre-Application Guidelines

DHR #	Resource Name	Rebuild Project Segment	Total Battlefield Acreage (ABPP)	Battlefield Acreage within 1.0 Mile	Core Area within 1.0 Mile (Acres)	PotNR Area within 1.0 Mile (Acres)
076-5842	Cockpit Point Battlefield	Aquia Harbour-Possum Point	4,428	946	329	697
088-5180	Chancellorsville Battlefield	Line #2083	41,489	162	-	-
088-5181	Bank's Ford/Salem Church Battlefield	Line #2083	8,090	2,037	843	-
111-5295	Battle of Fredericksburg I	Line #2083	13,182	2,315	1,744	534
111-5296	Battle of Fredericksburg II	Line #2083	12,649	1,761	1,036	-

For the assessment of battlefield resources, Stantec took into consideration the guidance and recommendations of the American Battlefield Protection Program's (ABPP's) 2009 assessment of Virginia's Civil War period battlefield resources and subsequent updates. In 2009, the ABPP revised the 1992 Civil War Sites Advisory Commission (CWSAC) boundaries for Virginia, and many of the battlefields were greatly expanded in size. For each battlefield, the ABPP defined Study Areas and Core Areas. The larger Study Area contains all resources known to relate to or contribute to the battlefield event, such as where troops maneuvered and deployed, immediately before or after combat, and where they fought



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during combat. Within the Study Area are Core Areas, which denote the actual fighting areas located within the larger battlefield. In addition, the ABPP defined Potential National Register (PotNR) areas for each battlefield. The PotNR boundary represents the ABPP's assessment of a Study Area's current integrity. The PotNR area may include all or some of the Study Area, or all or some of the Core Area, associated with a battlefield engagement. The PotNR boundary does not constitute a formal determination of eligibility by the Keeper of the NRHP; however, it is a recommendation of potential eligibility.

3.2 ARCHITECTURAL RESOURCES CONSIDERED – AQUIA HARBOUR – POSSUM POINT

Three individual architectural resources, three historic districts, and one Civil War battlefield were considered for visual effects for the proposed Aquia Harbour – Possum Point segment of the Rebuild Project (see Table 2; Appendix B). The resources are further described below along with a discussion and recommendation of potential effects resulting from the Rebuild Project.

3.2.1 Aquia Church (DHR #089-0008)

Constructed circa 1751, Aquia Church is a two-story, Georgian style, Greek Cross plan church constructed of brick laid in a Flemish bond pattern. The church has a hipped roof with a tower topped by a cupola. Fenestration comprises nine-over-nine wood sash windows on the first floor and arched nine-over-six wood sash windows on the second floor. Quoins and door surrounds are carved from local Aquia stone. The double paneled door is topped by a pediment (Figure 2). There are four secondary resources including an eighteenth-century cemetery, a nineteenth century fence, undated parsonage, and a circa 1700 dwelling. The cemetery is a contributing resource and the NRHP boundary follows the boundaries of the church parcel. The church was listed in the NRHP in 1969. It was designated an NHL in 1991 as a nationally significant example of architecture under Criterion C and Criteria Consideration A, with a Period of Significance of 1751 to 1757 (DHR Site Files; Driggs 1990).

3.2.1.1 Visual Effects Assessment

Aquia Church is located at the northeast corner of Jefferson Davis Highway (Route 1) and Washington Drive within 1.5 miles of the Rebuilt Project corridor (Appendix B). The church is set within an open, level landscape with an asphalt parking lot in front and a cemetery located to the north, east, and south. Several large trees dot the landscape within the cemetery. Beyond the cemetery and the church are dense areas of woods which shield the resource from modern residential and commercial development on the adjacent parcels. Aquia Church is located approximately 4,050 to the west of the Rebuild Project centerline. Under current conditions, the transmission line is not visible from the resource (Figure 3; Appendix C). Viewshed modeling and simulations prepared for the Rebuild Project indicate that none of the proposed structures will not be visible (Figure 4; Appendix C/OP8). ***It is anticipated, therefore, that the Rebuild Project will have No Visual Impact on Aquia Church (DHR #089-0008).***



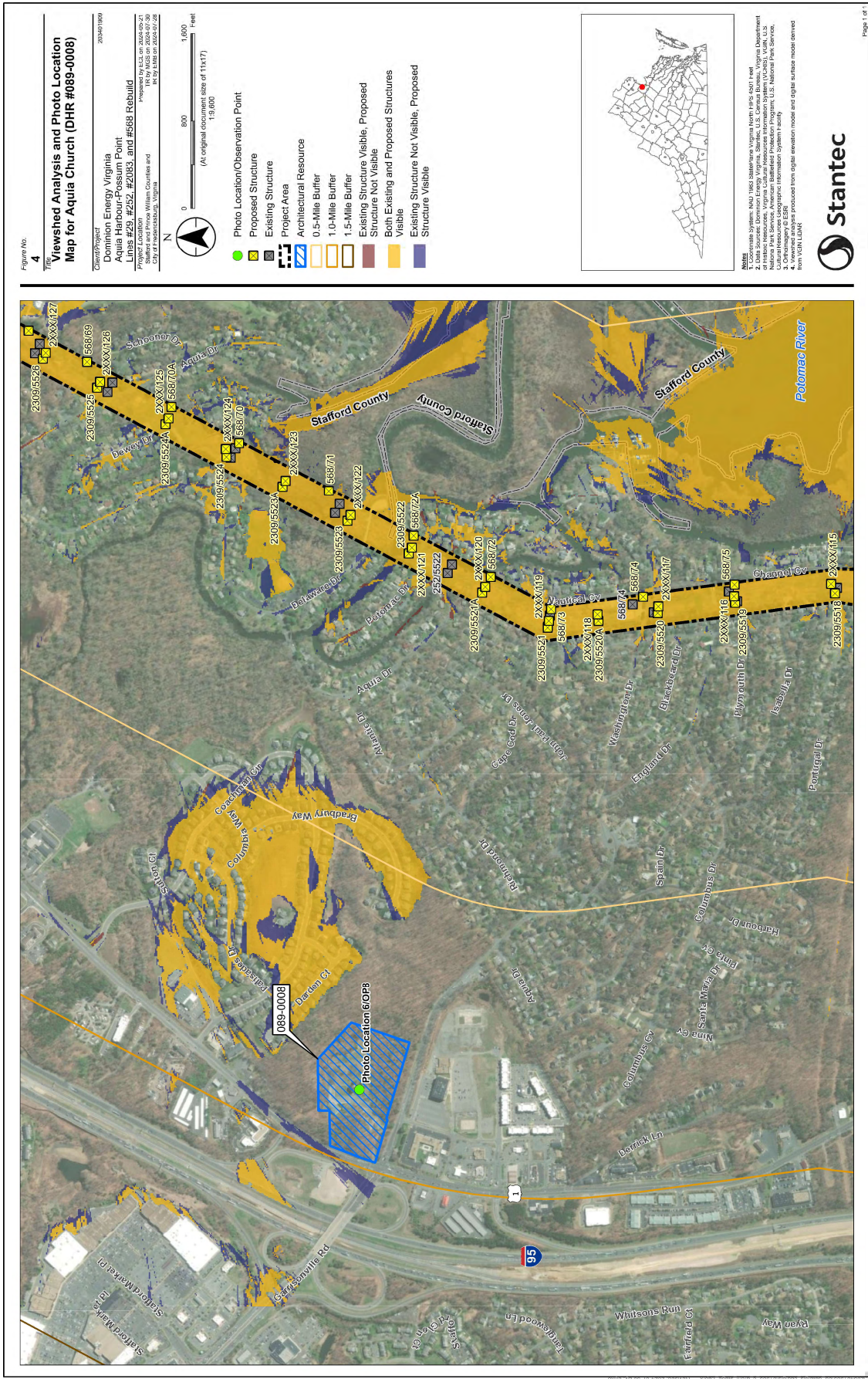
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Figure 2 View of Aquia Church (DHR #089-0008), View Looking East.



Figure 3 View from Aquia Church toward Proposed Project (DHR #089-0008; Photo Location 6 /OP8), View Looking East. Transmission Line is not Visible.



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3.2.2 Brent Cemetery/Aquia Cemetery & Brent Tombs (DHR #089-0069)

Brent Cemetery/Aquia Cemetery & Brent Tombs, hereafter referred to as Brent Tombs, is a small cemetery located within a wooded area in Stafford County (Figure 5). Brent Cemetery was established circa 1685 with twenty marked graves including eight capstones, several tablets and fieldstones, and two modern flush markers as well as an unknown number of unmarked graves. The cemetery is surrounded by a brick wall installed in the 1950s. In 1988, DHR determined the cemetery was eligible for listing in the NRHP under Criteria B and D and Criteria Considerations D and F.

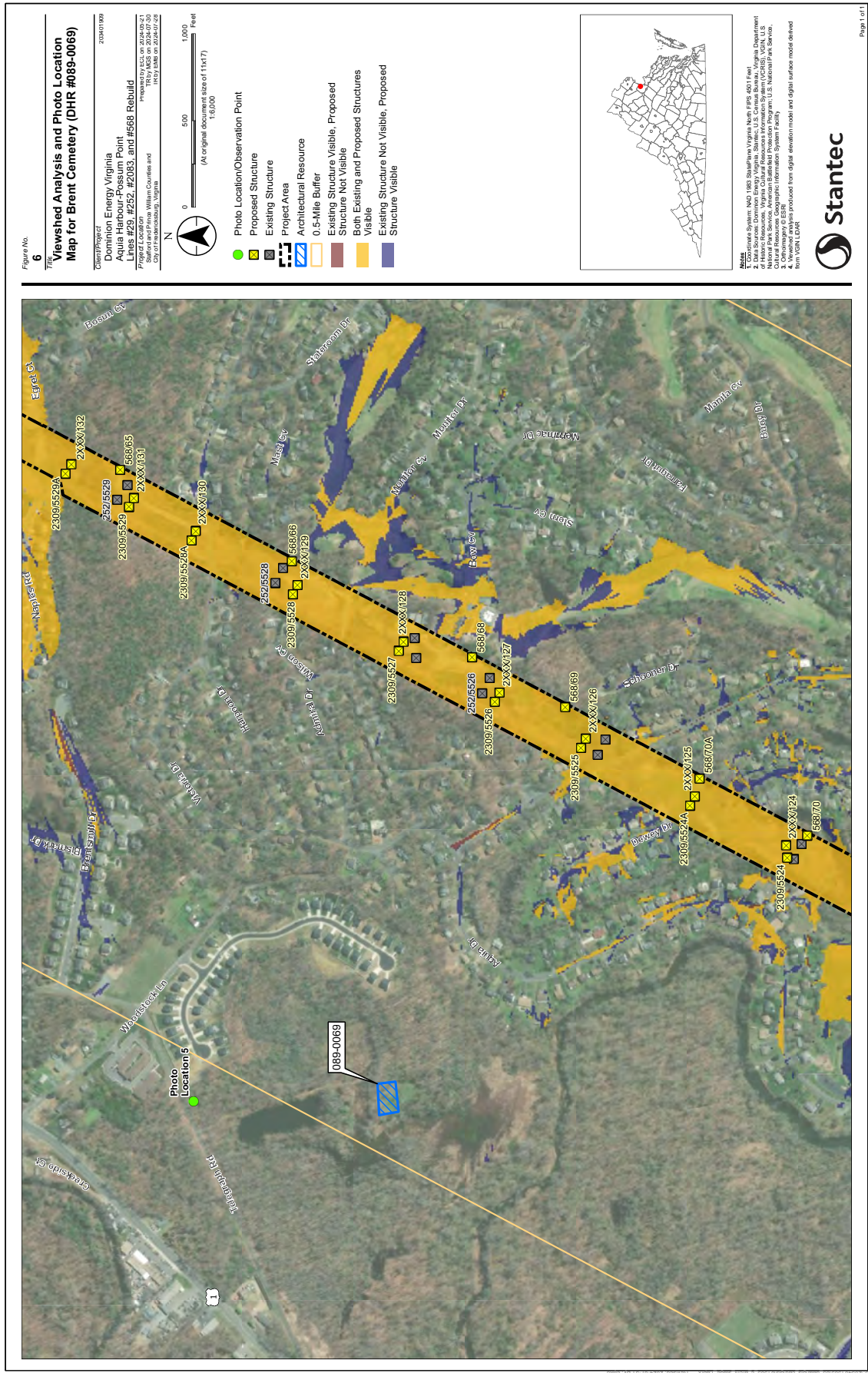


Figure 5 View of Entrance to Brent Cemetery (DHR #089-0069), Looking South (Photo Location 5)

3.2.2.1 Visual Effects Assessment

Brent Cemetery was not accessible from the public right-of-way during field survey (Figure 5). Brent Cemetery/Aquia Cemetery & Brent Tombs is located approximately 2,233 from the centerline of the Rebuild Project. Viewshed modeling conducted for the proposed project indicates that none of the proposed structures will be visible (Figure 6; Photo Location 5 and Appendix C). No photo simulation was prepared since the cemetery is not publicly accessible. ***It is anticipated, therefore, that the Rebuild Project will have No Visual Impact on the Brent Cemetery/Aquia Cemetery & Brent Tombs (DHR #089-0069).***





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3.2.3 Aquia Creek Quarry/Brent's Island (DHR #089-0103)

The Aquia Creek Quarry, dating to approximately 1791, is located on Government Island and encompasses approximately 17 acres (Figure 7). Within the 17 acres are five quarry sites and a foundation of a building whose function is currently unknown. The quarry functioned as a public quarry and the sandstone extracted from the site was used in the construction of the White House and the Capitol Building among other prominent buildings in Washington, DC, and areas of Virginia. The quarry was listed in the NRHP in 2007 under Criterion A for its significance in industry and Criterion D for its archaeological potential. The Period of Significance for Criterion A eligibility is 1791 to 1825 and for Criterion D eligibility is the Paleolithic to Woodland periods (DHR Site Files; Orient and Wheatcraft 2007).



Figure 7 View of Aquia Creek Quarry/Brent's Island (DHR #089-0103), Looking East.

3.2.3.1 Visual Effects Assessment

Aquia Creek Quarry/Brent's Island is located within 1.0 mile of the Rebuild Project corridor. A large area of the resource is tree covered to the east of the Aquia Creek. A wood deck with rails extends into the creek and functions as an observation point. An area of woods is located to the northwest, west, and southwest between the resource and the transmission line corridor (Appendix B).

The closest existing structure is Structure # 252/5517, 29/1785 and is located approximately 1,693 feet west of Aquia Creek Quarry/Brent's Island. Existing Structure # 252/5517, 29/1785 is being renamed Structure #252/5517, # 2309/5517 and is an existing 95 feet tall structure that will remain in place. Existing Structure #252/5518 is a double circuit weathering steel lattice structure measuring 108 feet high that would be replaced by two double circuit weathering steel monopoles: Structure # 2309/5518 and Structure 2XXX/115, each measuring 100 feet in height. The height would decrease by eight feet. The



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closest Line #568 structure being built under the Rebuild Project is #568/75⁴. The existing structure is 2,138 feet from Aquia Creek Quarry/Brent's Island. This existing single circuit galvanized steel lattice tower measures 110 feet and will be rebuilt as a 165-foot weathering steel monopole, representing a 55-foot increase.

According to field photography the existing transmission line is visible (Figures 8 and 9; Appendix A). Viewshed modeling and visual simulations conducted for the proposed project indicates that proposed structures will also be visible from the western-most point of the resource in the open area on and near the observation deck (Figure 10 and Appendix C/OP7). The Aquia Creek Quarry is listed in the NRHP for its significance in industry and also for supplying the stone utilized prominently in the construction of many federal buildings in Washington DC. Although the proposed structures will be visible to this resource, the visibility is limited and would not detract from the significance of the quarry, its associated sites, and setting at a level that would minimize its eligibility for listing in the NRHP. As most of the resource will be shielded from the proposed structures with only a small area within the viewshed, ***it is anticipated that the Proposed Project will have overall a Minimal Visual Impact on Aquia Creek Quarry/Brent's Island (DHR #089-0103).***



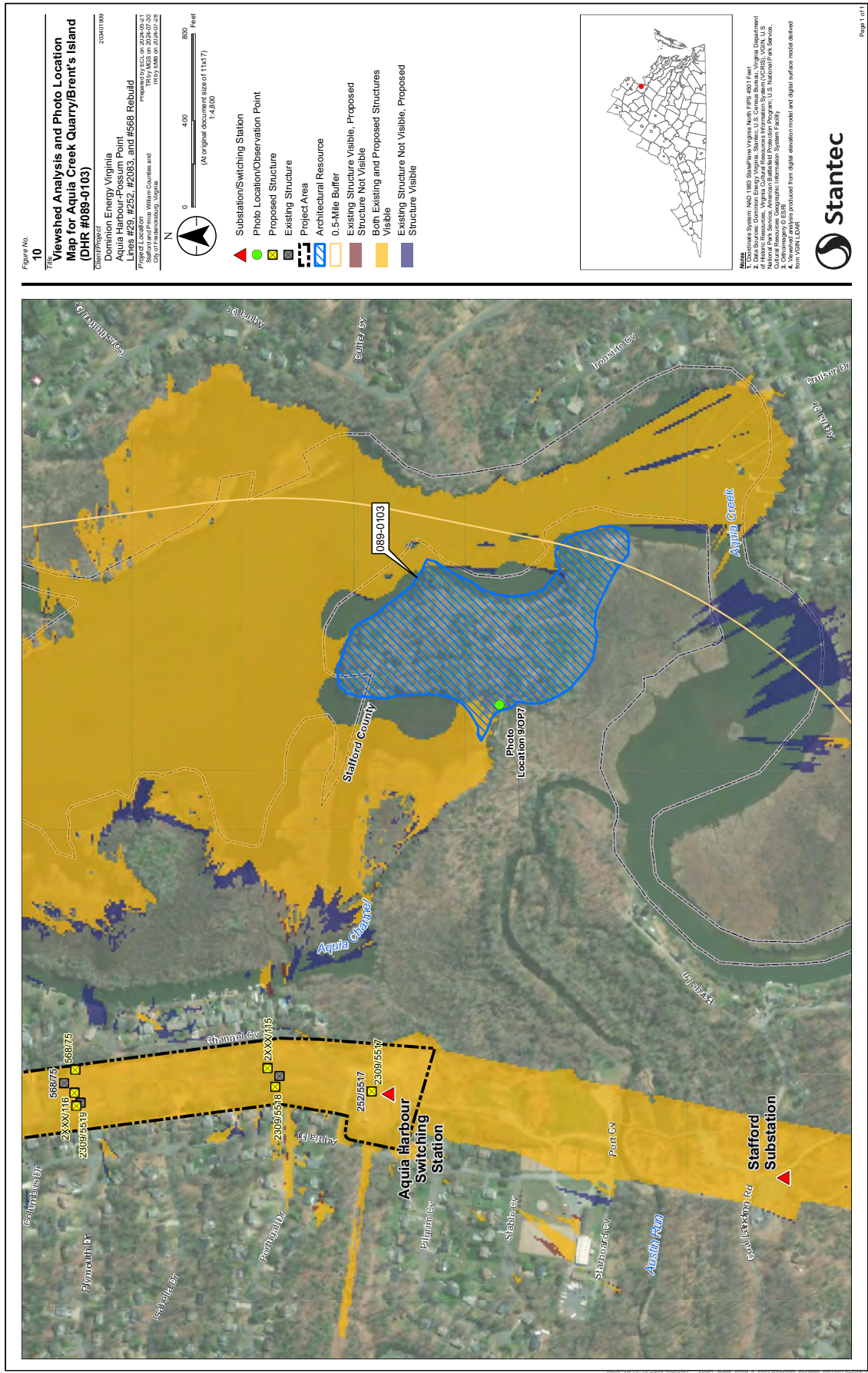
Figure 8 View from Aquia Creek Quarry/Brent's Island (DHR #089-0103; Photo Location 9; OP7) Looking Northwest. Existing Transmission Line is Visible.

⁴ Structure 568/76 is closer to Aquia Creek Quarry/Brent's Island but will be rebuilt under SCC Case #PUR-2024-00035. Therefore, effects from this structure are not considered in this Stage I analysis.

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**Figure 9 View from Aquia Creek Quarry/Brent's Island (DHR #089-0103; Photo Location 9; OP7)
Looking Southwest. Existing Transmission Line is Not Visible.**



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**3.2.4 Chopawamsic Recreation Demonstration Area/Prince William Forest Park
Historic District (DHR #076-0299)**

The Chopawamsic Recreational Demonstration Area/Prince William Forest Park Historic District, hereafter referred to as Chopawamsic Recreational Demonstration Area, is located in Prince William County, comprising approximately 15,000 acres of which approximately 10,875 acres are included within the NRHP boundary (Figure 11). In 1936, the area in which the park is situated was designated as a Recreational Demonstration Area and the land and buildings purchased from residents within its proposed boundary. The buildings were demolished, and the land converted to recreational purposes for inner city youth to experience nature and the healthy outdoors with the Civilian Conservation Corps (CCC) integral in the construction of cabins and a lake. The park continues to present its mid-1930s landscape and was listed in the VLR in 2010 and on the NRHP in 2012 under Criterion A (Recreation/Entertainment, Ethnic Heritage/African American, Social History, Military, and Industrial History), under Criterion C (Architecture), and under Criterion D (Archaeology) with a Period of Significance between circa 3,800 BC to AD 1945 AD. The district contains 88 contributing and 163 non-contributing resources (DHR Site Files; Kuhn and Bedell 2011).



Figure 11 Chopawamsic Recreational Demonstration Area (DHR #076-0299), View Looking Northeast.

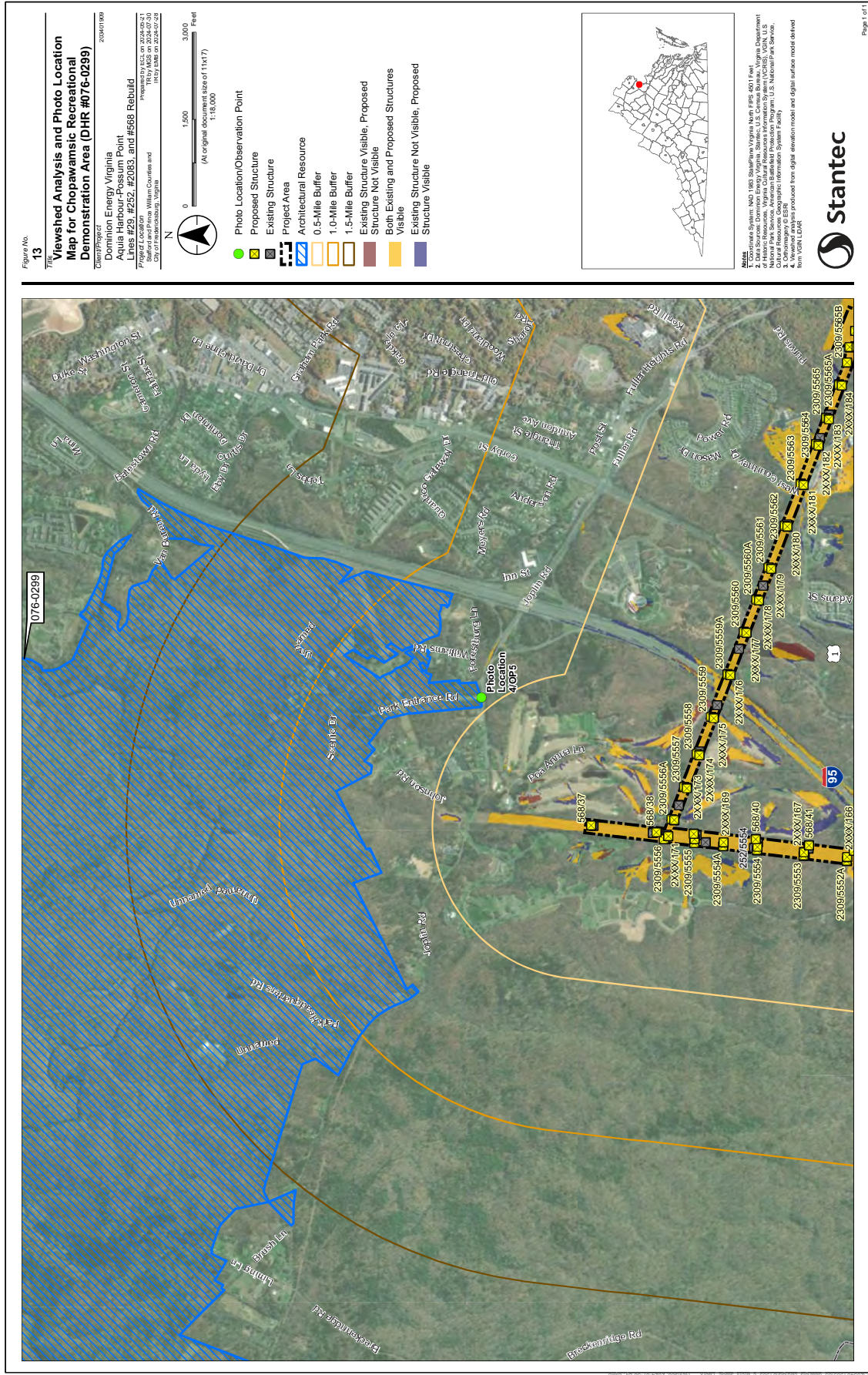
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3.2.4.1 Visual Effects Assessment

The Chopawamsic Recreational Demonstration Area consists of piedmont forest and straddles the fall line of Quantico Creek, a tributary of the Potomac River which is located four miles east of the park's eastern boundary. Dumfries Road (Route 234 forms the northern boundary and Joplin Road (Route 619) runs along the southern boundary. Interstate 95 is located to the east of the park. The Rebuild Project is located approximately 1.0 mile south of the Chopawamsic Recreational Demonstration Area. Under current conditions, the existing transmission line is not visible from the resource (Figure 12; Appendix A). Viewshed modeling and photo simulations prepared for the Rebuild Project indicate that none of the proposed structures will be visible (Figure 13; Appendix C/OP5). ***It is anticipated, therefore, that the Rebuild Project will have No Visual Impact on Chopawamsic Recreational Demonstration Area (DHR #076-0299).***



Figure 12 Chopawamsic Recreational Demonstration Area (DHR #076-0299), View Looking Southwest (Photo Location 4 /OP5).



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3.2.5 Camp French (DHR #076-5313/44PW0917)

Camp French (DHR #076-5313) is the location of a Civil War period camp occupied by Confederate soldiers during the winter of 1861. The site is associated with the Confederate and Union military campaigns which sought to gain control of the Potomac River in 1861 and 1862 (DHR Site Files). The site was listed in the VLR and NRHP in 2008 under Criteria A and D (DHR Site Files, NRHP Nomination #08001055).

Camp French is located at the edge of the 0.5-mile buffer and fully within 1.0-mile of the Rebuild Project (Appendix B). Visual modeling indicates that there would be no visibility of the project from this resource. Since the site is an archaeological resource and there would be no visibility of the Rebuild Project, Camp French has been removed from consideration in this analysis.

3.2.6 Quantico Marine Corps Base Historic District (DHR #287-0010)

The Quantico Marine Corps Base Historic District, located in Prince William and Stafford counties, is located on the western shore of the Potomac River (Figure 14; Appendix B). The base, which includes both the Marine Corps Combat Development Command and the Naval Regional Medical Clinic, comprises approximately 1,025 acres. The district is characterized by the presence of dense wooded areas as well as open areas containing buildings associated with the Marine Corps facility. The district itself comprises 239 contributing and 188 non-contributing resources located on approximately 1,025 acres. Resources listed as contributing within the NRHP-listed district reflect significance in aviation, education, and industry as well as African American and military history with a period of significance from 1918 to 1949 (DHR Site Files; Quantico Marine Corps Base Historic District Nomination Form).

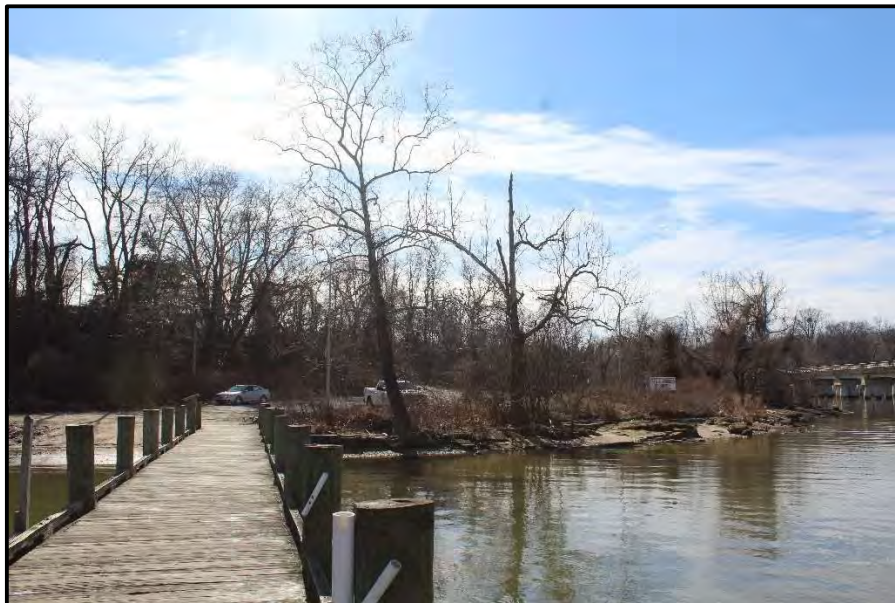


Figure 14 View of Quantico Marine Corps Base Historic District (DHR #287-0010; OP 2), Looking Southwest. The Richmond, Fredericksburg & Potomac Railroad and Historic District (DHR # 076-0301/500-0001) is to Right of Photo.



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3.2.6.1 Visual Effects Assessment

The majority of the historic district is situated beyond the 1.0-mile buffer (Appendix B). Since the resource is not an NHL, the section within the 1.5-mile buffer does not meet the criteria for consideration during the Stage I analysis. Two small areas of the NRHP-listed property on the far northeastern end of the historic district are located within the 1.0-mile buffer of the existing/proposed transmission line and meet the criteria for consideration per DHR guidelines. The closest existing structure (Structure 291/1854) is located approximately 3,435 feet from the resource. According to field photography the existing transmission line is visible from this northeastern end of the resource looking north, but it is not visible looking to the northwest (see Figure 15; Appendix C). The viewshed modeling and visual simulations for the resource indicated that under current conditions the existing structures were visible from points along the northern edge of the portion of the historic district located on the east side of the Richmond, Fredericksburg & Potomac Railroad (Figure 16; Appendix C/OP2).

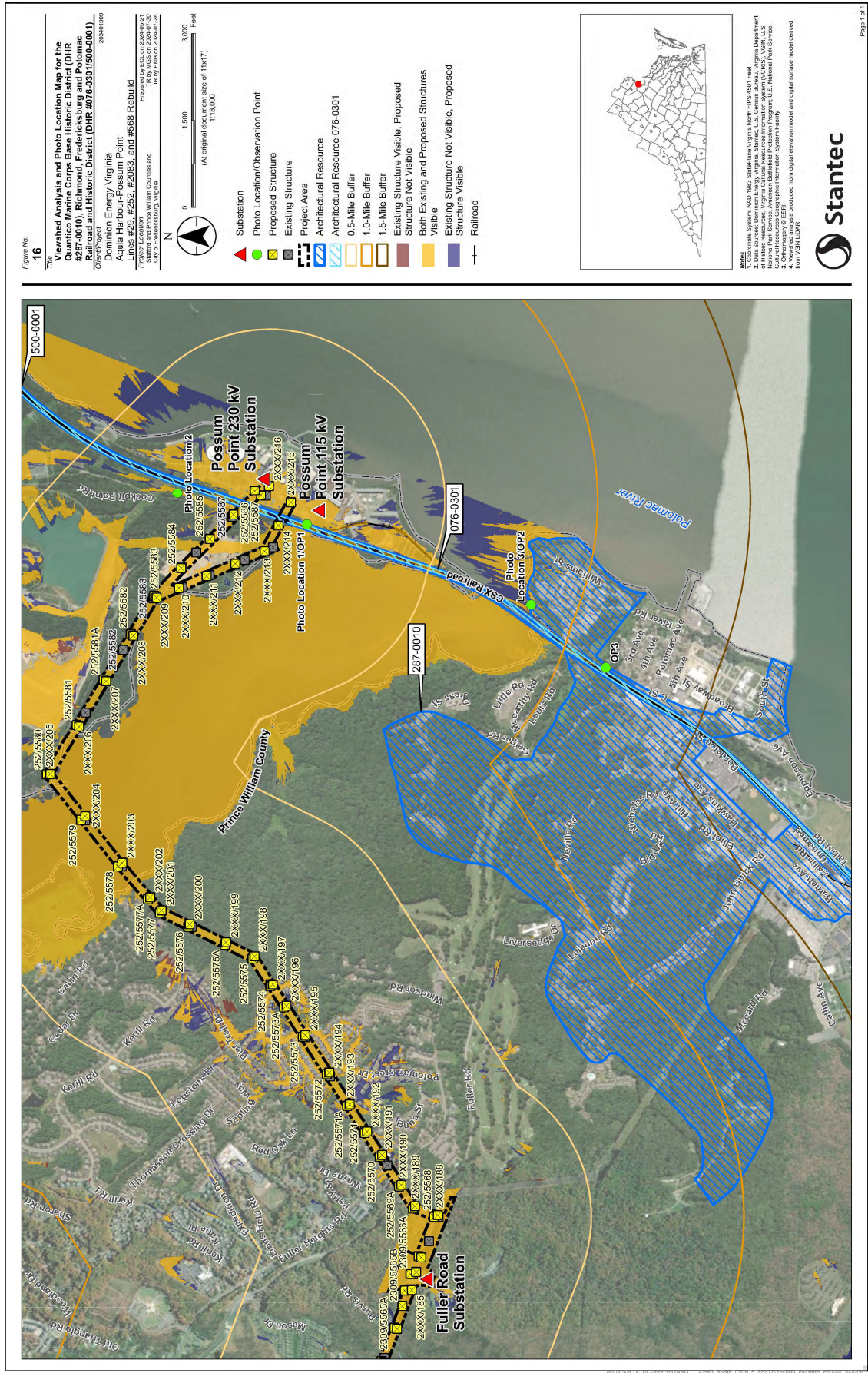
The viewshed modeling also indicated that the proposed structures will be visible from multiple points along the northern edge of the district (Figure 16). Photo simulations prepared for the Rebuild Project indicate that existing and proposed structures can be seen across Quantico Creek against the backdrop of the existing Possum Point Power Station (Appendix C OP2). The existing viewshed across Quantico Creek has views of the existing Possum Point Power Station and an overall industrial look. While integrity of setting and feeling are important to the significance of the historic district, particularly in the areas to the west and south of the resource, the limited portion of the resource that has views of the current Rebuild Project is located within an industrialized area where integrity of setting and feeling have been previously compromised. The minimal change in viewshed resulting from the proposed Project would not detract from the overall significance of the historic district nor affect the integrity of the resource to the point where the resource can no longer convey its significance. Based on the fieldwork, the preliminary heights of the proposed structures, photo simulations and the viewshed modeling for the resource, ***it is recommended that the Rebuild Project would have a Minimal Visual Impact to the Quantico Marine Corps Base Historic District (DHR #287-0010).***



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Figure 15 View from Quantico Marine Corps Base Historic District (DHR #287-0010, OP 2) Looking Northwest across Quantico Creek and the Richmond, Fredericksburg & Potomac Railroad and Historic District (DHR # 076-0301/500-0001; OP2) Existing Transmission Line is Not Visible.



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**3.2.7 Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301)/
Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001)**

Within the Stage I analysis area, the Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001) encompasses the 11-mile segment of the Richmond, Fredericksburg, & Potomac Railroad (DHR #076-0301), therefore the two resources were evaluated together for purposes of the visual effects assessment. The Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001) includes numerous associated secondary resources including bridges and culverts spanning its entire length from downtown Richmond, Virginia north to the crossing of the Potomac River in Arlington, a distance of over 100 miles. The 11-mile segment of the Richmond, Fredericksburg & Potomac Railroad that is intersected by the Rebuild Project was completed in the late nineteenth century and extends 11 miles through Prince William and Stafford counties, from Cherry Hill on its northern end to Arkendale, at its southern-most point. The railroad parallels Route 1 and the Potomac River. The resource comprises two tracks (Figures 18-22) and a number of bridges, a majority of which has been replaced. The freight station and passenger station, constructed after World War II, located in Quantico, remain.

The section of the railroad line (DHR #076-0301) located in Prince William and Stafford counties was determined eligible for listing in the NRHP in 2010 by DHR, although the determination was changed to potentially eligible in 2016 (DHR Site Files). The Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001), which incorporates the Richmond, Fredericksburg & Potomac Railroad within the project area (DHR #076-0301), was determined eligible for listing in the National Register of Historic Places under Criterion A for its importance and significance in the transportation history of Virginia in 2018 (DHR Site Files).

3.2.7.1 Visual Effects Assessment

The Rebuild Project ROW diverges into two separate ROWs in the shape of a Y, crossing the Fredericksburg & Potomac Railroad (DHR #076-0301) at two locations. Approximately 1.17 miles of the railroad's 11-mile track segment identified as DHR #076-0301 and a contributing element to the larger railroad historic district, are located within a 0.5-mile radius of the Rebuild Project. The Rebuild Project crosses the railroad corridor in two locations as Line # 252 and Line #2XXX enter the Possum Point Station. Of the 1.17 miles of track located within the study buffer, approximately 0.86 mile of the resource views the existing structures and will also have variable visibility of the proposed.

Presently the railroad views the Possum Point Station to the east, as well as multiple existing transmission lines extending from the power station, and where the Rebuild Project crosses the resource at Possum Point Road (Figures 17-22). Generally, woods are present on either side of the railroad tracks which often shields the view of the Rebuild Project from the resource. Where the railroad crosses Quantico Creek from the south, coming back onshore south of the Possum Point Station, there may be views of the existing transmission structures as well as the proposed. The water crossing measures approximately 0.28 miles with wooded approaches on both banks of Quantico Creek (Figure 22). Existing structures crossing Quantico Creek to the north may be visible from the resource, however the view would likely be obstructed by the shoreline on the west side of Quantico Creek (see Figure 22; Figure 23)



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Viewshed modeling and visual simulations prepared for the Rebuild Project illustrate that the existing and proposed structures will be visible from the resource at OP1 as well as at select locations along the resource corridor where tree cover is not present (Figure 23; Appendix C/OP1). Existing structures associated with numerous transmission lines, including Line #252 and Line #29, are present and visible to varying degrees in this location. Existing structures in proximity to the railroad and historic district corridor include Structures 252/5587 with a height of 74 feet and 252/5585 with a height of 80 feet among others. Proposed structures 2XXX/209, 2YYY/212 and 2XXX/213, 2YYY/216, as illustrated in the photo simulation are proposed at 105 and 130 feet respectively (Appendix C/OP 1). Additional existing structures will be replaced, and new structures associated with two currently unnamed lines will be constructed (Figure 23; Appendix A).

The visual simulation illustrated three sets of existing and proposed structures that will be visible from the resource (Appendix C/OP1). This coupled with the visual modeling illustrated in Figure 23 that suggests limited visibility of the Rebuild Project from the railroad corridor, indicated that the overall visual impact of the proposed structures will not greatly change from the existing conditions in the vicinity of this resource. The Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001) and the 11-mile segment of the Richmond, Fredericksburg, & Potomac Railroad identified as DHR #076-0301 are eligible for listing in the NRHP for their significance in the transportation history of the Commonwealth. While integrity of setting and feeling are important to the significance of the railroad, particularly as it passes through rural and undeveloped areas along portions of track that may be representative of its late nineteenth and early twentieth century history, the limited portion of the railroad corridor under consideration for the current Rebuild Project is located within an industrialized area where integrity of setting and feeling have been previously compromised. The portion of the historic district within the viewshed of the Project is less than one percent of its total length and the affected portion of the 11-mile segment is approximately only 10 percent of that segment's total length. It is therefore anticipated that the proposed Project will not significantly alter the already compromised viewshed of either the Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001) or the 11-mile segment of the Richmond, Fredericksburg, & Potomac Railroad identified as DHR #076-0301. Based on the fieldwork, the preliminary heights of the proposed structures, and the viewshed modeling for the resource, ***it is recommended that the Rebuild Project would have a Minimal Visual Impact to the Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301) and the Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001).***



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Figure 17 View of Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301), Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001), and the Cockpit Point Battlefield (DHR #076-5842; Photo Location 2) Looking North/Northeast.



Figure 18 View from Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301), Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001), and the Cockpit Point Battlefield (DHR #076-5842; Photo Location 1/OP1) Looking South towards Proposed Project Area.

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Figure 19 View from Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301), Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001), and the Cockpit Point Battlefield (DHR #076-5842; Photo Location 1/OP1) Looking North towards Proposed Project Area. Transmission Lines Visible are not the Current Project Transmission Line.



Figure 20 View from Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301), Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001), and the Cockpit Point Battlefield (DHR #076-5842; Photo Location 1/OP1) Looking Southwest from Bridge over Tracks towards Proposed Project Area. Transmission Lines Visible are not the Current Project Transmission Line.

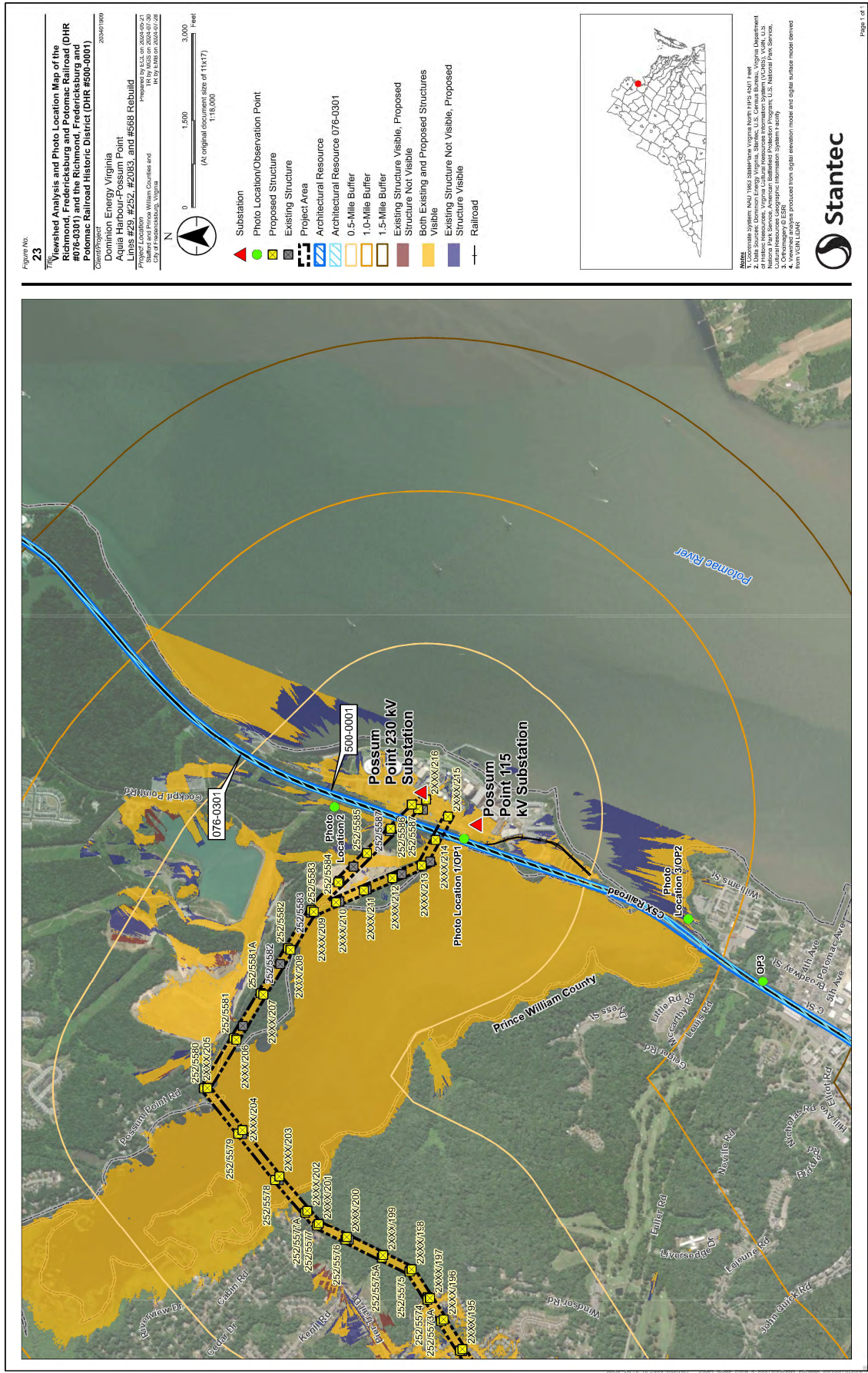
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Figure 21 View from Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301), Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001), and the Cockpit Point Battlefield (DHR #076-5842; Photo Location 1/OP1) Looking Southeast from Bridge over Tracks toward the Rebuild Project as it Enters Possum Point Station. Transmission Lines Visible are not the Current Project Transmission Line.



Figure 22 View of Richmond, Fredericksburg & Potomac Railroad (DHR #076-0301), Richmond, Fredericksburg & Potomac Railroad Historic District (DHR #500-0001) as it Crosses Quantico Creek (Photo Location 3/OP 2) Looking North towards Proposed Project Area and Cockpit Point Battlefield (DHR #076-0301). Possum Point Station in Right-Center of Photo. Existing Transmission Line is Not Visible.



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3.3 BATTLEFIELD RESOURCES CONSIDERED – AQUIA HARBOUR- POSSUM POINT

Battlefields and associated fortifications present within the limits of the Stage I analysis area were considered for visual effects for the Aquia Harbour-Possum Point segment of the Rebuild Project. Portions of one battlefield resource is located within the Stage I buffers (see Table 5; Appendix B and C).

3.3.1 Cockpit Point Battlefield (DHR #076-5842)

The Battle of Cockpit Point took place on January 3, 1862, and was part of the Blockade of the Potomac River Campaign. Batteries has been previously set up on the Point as part of the defensive line, which also included Evansport, Freestone Point, and Shipping Point. The battle on January 3rd pitted Lieutenant R. H. Wyman, Commander of the Union forces, against Brigadier General S. G. French, Commander of the Confederate forces. The battle was inconclusive and limited damage was done to either the Union ships, the *Anacostia* and *Yankee*, engaged in the battle, or to the Cockpit Point battery (VDHR Site Files; Townsend 1988; ABPP 2016).

The ABPP has designated approximately 4,428 acres of Study Area for the Cockpit Point Battlefield with 197 acres within the Commonwealth of Virginia and the remainder within the Potomac River and the State of Maryland (DHR Site Files; ABPP 2009). Of the 4,428 acres, approximately 946 acres are located within 1.0 mile of Aquia Harbour-Possum Point segment of the Rebuild Project and includes 329 acres of the battlefield's Core Area (see Table 5). The ABPP has designated approximately 4,374 acres of PotNR area, mostly within the Potomac River, 697 acres of which are located within the analysis area. This battlefield overlaps with the Richmond, Fredericksburg & Potomac Railroad (VDHR #076-0301) and the Richmond, Fredericksburg & Potomac Railroad Historic District (VDHR #500-0001).

3.3.1.1 Visual Effect Assessment

The Rebuild Project is within the ABPP-defined Study Area of the Cockpit Point Battlefield. The ABPP-defined-Core Area extends into the Stage I analysis area as does a portion of the ABPP-defined PotNR area. Within the Rebuild Project, the battlefield has been impacted by existing roads and existing infrastructure related to the Possum Point Station and other industrial uses. The resource currently views the Possum Point Station, as well as existing transmission lines extending from the power station, where the Rebuild Project crosses the resource at Possum Point Road (see Figures 21 and 22). The Richmond, Fredericksburg & Potomac Railroad (VDHR #076-0301) and the Richmond, Fredericksburg & Potomac Railroad Historic District (VDHR #500-0001) cross the battlefield.

The landscape of the resource consists of mainly dense areas of woods broken by several roads with areas of residential development located within the northwestern-most end of the Cockpit Point Battlefield ABPP Study Area. The wooded areas currently obscure most of the resource from the existing transmission line structures with the exception of the area of the battlefield crossed by the existing transmission line corridor or within the Possum Point Station. Under current conditions, the existing transmission line structures, which range in height from approximately 56 to 117 feet in the vicinity of the resource, the existing power station, and additional transmission lines were visible from OP 1 (see



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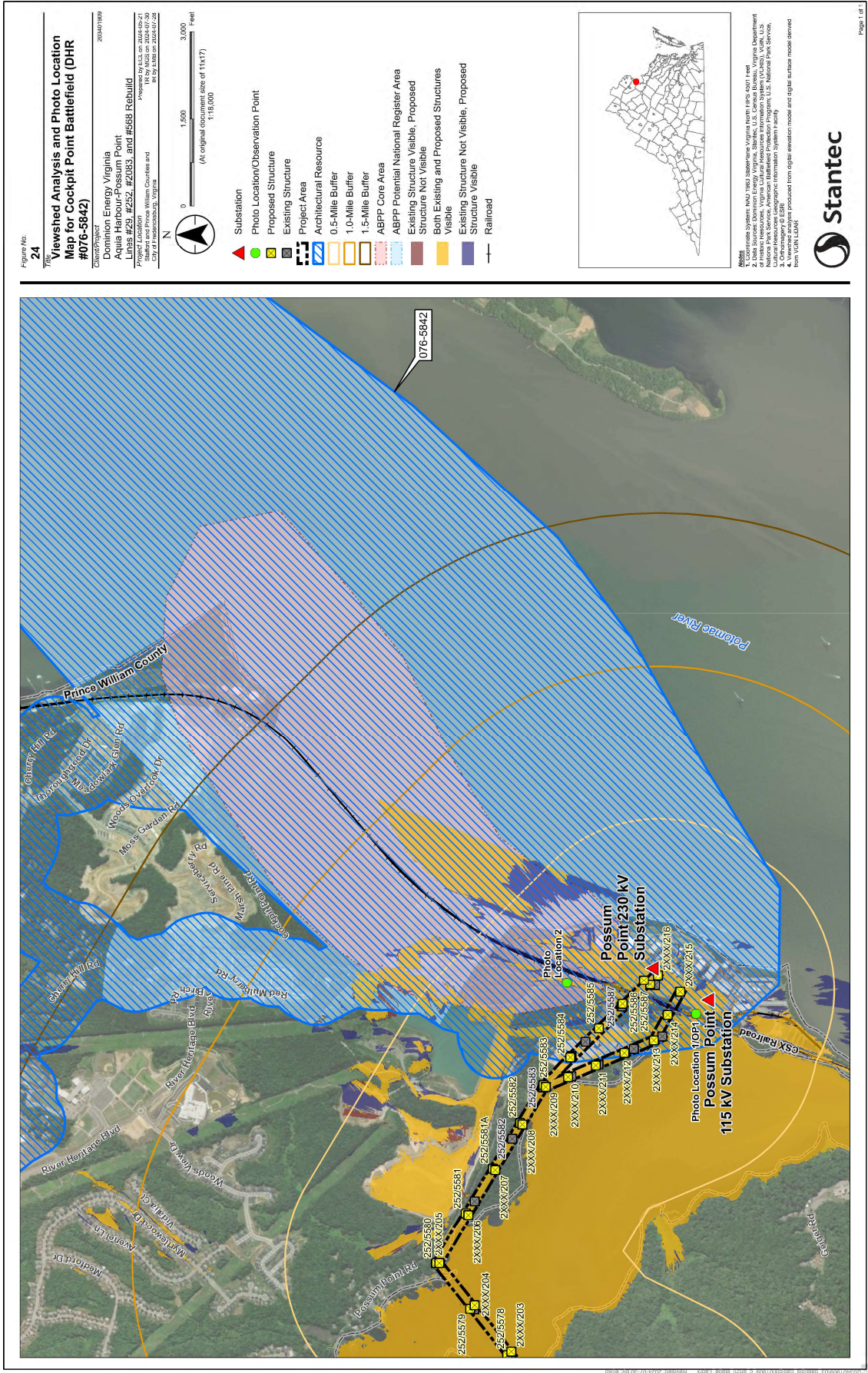
Figures 19-21). Based upon Dominion Energy's preliminary design, the proposed structures in this section of the line will range in height from approximately 105 to 120 feet, with two structures, 2XXX/214 and 2XXX/215 measuring 160 and 165 feet respectively. The average increase in height for the Rebuild Project in this area is 49 feet (Table 6). Although the average height change is 49 feet, largely due to the necessary height of new structures on the south side of Possum Point Station, the views from the Core and PotNR areas of the battlefield resource would not significantly change as the viewshed has been altered by the existing Possum Point Station and the multitude of existing transmission line structures.

Table 6 Summary of Structure Changes within the Cockpit Point Battlefield: Aquia – Possum Point

Existing Structures				Proposed Structures			
Circuit 1	Circuit 2	Distance (ft)	Height (ft)	Circuit 1	Circuit 2	Distance (ft)	Height (ft)
29/1850	252/5583	738	116	2297/1850	252/5583	668	105
				2XXX/209	2YYY/209	657	105
29/1851	-	354	56	2XXX/210	2YYY/213	327	105
29/1852	-	492	66	2XXX/211	2YYY/214	501	105
29/1853	-	0	68	2XXX/212	2YYY/215	0	105
29/1854	-	0	56	2XXX/213	2YYY/216	0	130
	-			2XXX/214	2YYY/217	0	160
	-			2XXX/215	2YYY/218	0	165
252/5584	-	0	74	252/5844	-	0	155
252/5585	-	0	80	252/5585	2297/1852	0	155
252/5877	-	0	114	252/5586	2297/1853	0	120
252/5588	-	0	71	252/5587	-	0	95
				2XXX/216	2YYY/219	0	145
Average Structure Height (ft)			78				127
Average Structure Height Change (ft)							49

The Cockpit Point Battlefield extends beyond a 1.0-mile radius to the northwest and also encompasses the area of the Possum Point Station. While the portion of the southeastern area of the battlefield, (according to the viewshed modeling) views the existing transmission line and will view the Rebuild Project, the integrity of the battlefield within view of the existing and proposed transmission line structures has been compromised by the construction of the Possum Point Generation Station, the Possum Point Switching Station, and multiple existing transmission lines. The area of the battlefield which retains integrity is located to the northwest and west of the Rebuild Project. Under current conditions, as indicated by the computer modeling, the proposed structures will be visible in similar areas within the resource as the existing line (Figure 24). The overall visual impact of the proposed structures; however, will not greatly change from the existing conditions in the vicinity of this resource. Based on the fieldwork, the preliminary heights of the proposed structures, and the viewshed modeling for the resource, ***it is recommended that the proposed Project would have a Minimal Visual Impact to the Cockpit Point Battlefield (VDHR #076-5842).***





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3.4 ARCHITECTURAL RESOURCES CONSIDERED - LINE #2083

Twelve individual architectural resources, four historic districts, and four battlefield resources are located within the analysis area for visual effects for the Line #2083 segment of the Rebuild Project (Appendix B). Of the resources assessed for potential visual effects, there are four NHLs, 11 NRHP-listed resources, two NRHP-eligible resources, and two potentially NRHP-eligible resources. The resources are further described below along with a discussion and recommendation of potential effects resulting from the Rebuild Project.

3.4.1 Brompton (DHR #111-0008)

Brompton is an imposing, two-story, three-bay, Greek Revival-style dwelling with one-story wings and currently serves as the residence for the President of the University of Mary Washington. The dwelling was constructed prior to 1820 and features a later, ornate pedimented portico with full-height Ionic columns. The pediment was reportedly added after the Civil War as the house had sustained heavy damage. The exterior walls are brick laid in a Flemish bond on the façade and three-course American bond pattern on the remaining elevations. Two large, brick chimneys are visible above the ridge line of the front gable roof. Additional architectural features include an elliptical light over the front entry, which is flanked by sidelights, and six-over-six wood sash windows (Figure 25) Brompton was listed in the NRHP in 1979 under Criterion A for its significance in Civil War history and Education and under Criterion C for its architectural merit (DHR Site Files; VHLC 1979).



Figure 25 View of Brompton (DHR #111-0008), Looking West.



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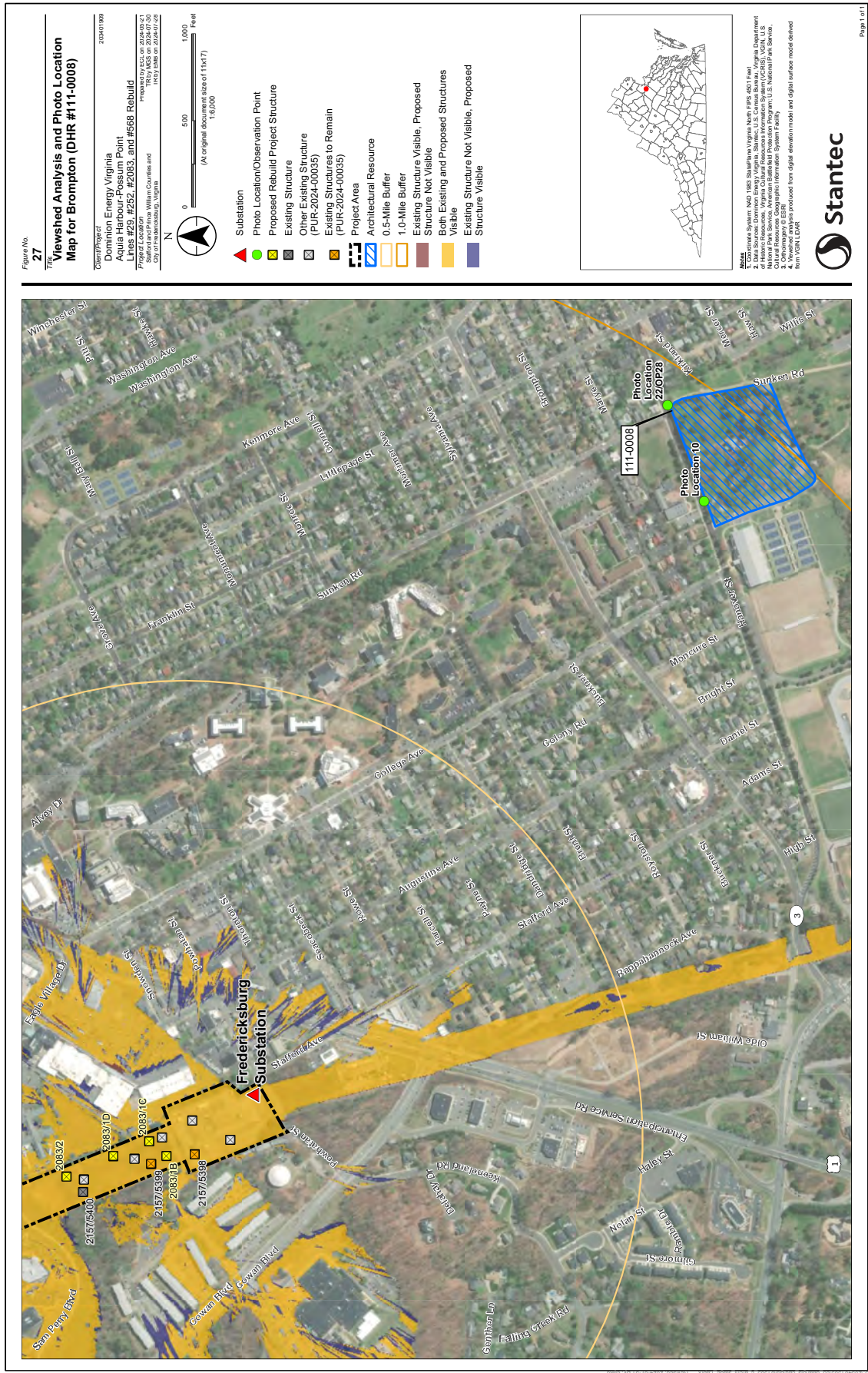
3.4.1.1 Visual Effects Assessment

Brompton is located within 1.0 mile of the Line #2083 Rebuild Project. Situated on 11 acres on a hill above Hanover Street in the City of Fredericksburg, Brompton is surrounded by a manicured lawn dotted with mature trees. A stone wall and a tree line extends along the Hanover Street side of the property. A modern sports complex, part of the University of Mary Washington, is located to the southwest. Across Sunken Road is an area of early to mid-twentieth century development with some modern in-fill. To the south is the site of the 1862 battle of Marye's Heights and the Willis Cemetery (Appendix B).

Brompton is located 4,447 feet southeast of the Rebuild Project at its nearest point. The site visit indicates that, under current conditions, there is no visibility of the existing transmission line structures (Feature 26). Visual modeling and visual simulations for the Line #2083 Rebuild Project further suggest that there is no visibility of the current transmission line structures and that there would be no visibility of proposed structures associated with Line #2083 based on the preliminary design (Figure 27; Appendix C/OP28). It is anticipated, therefore, that the proposed Line #2083 Rebuild Project will have **No Visual Impact to Brompton (DHR #111-0008)**.



Figure 26 View from Brompton (DHR #111-0008, Photo Location 10 OP 8) Looking Northwest. Existing Transmission Line is Not Visible.



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3.4.2 Kenmore Plantation/Millbrook (DHR #111-0047)

Kenmore Plantation was constructed around 1775 by Fielding Lewis for his wife Betty Washington, the sister of George Washington. The two-story, five-bay, brick residence is designed in the Georgian style and features a jerkin head roof clad in slate shingles. The exterior walls are laid in a Flemish bond pattern with a three-course string course between the first and second floors. Four brick chimneys extend above the roof line, two in each end of the dwelling. The dwelling also features a dentiled cornice, center entry with transom, and nine-over-nine and six-over-nine wood sash windows (Figure 28). The kitchen and office on the parcel were reconstructed around 1929 after the Kenmore Association took ownership of the property. The museum/visitor's center was added in 1974. The resource was listed in the NRHP in 1969 for its significance in art, architecture, and history and designated an NHL property in 1970. Kenmore is also considered a contributing resource to the Washington Avenue Historic District (DHR #111-5262; DHR Site Files; VHLC 1969).



Figure 28 View of Kenmore Plantation/Millbrook (DHR #111-0047), Looking Northeast.

3.4.2.1 Visual Effects Assessment

Kenmore Plantation is located within 1.0 mile of the Line #2083 Rebuild Project in the City of Fredericksburg. The primary resource sits back from the road within an open landscape with a manicured lawn surrounding the dwelling. Large trees dot the landscape beyond the house and a brick wall encloses the property. The tree-lined street of Washington Avenue with center grass median runs past the dwelling. Providing access to the dwelling is a wide brick sidewalk. Beyond the property are late nineteenth to early twentieth century residences (Appendix B).

Kenmore Plantation is located 4,728 feet to the east of the proposed Line #2083 Rebuild Project at its nearest point. The closest proposed structure is Structure 2083/1C (115 feet in height), which corresponds approximately with the existing Structure # 2157/5398 (104 feet in height). The change in



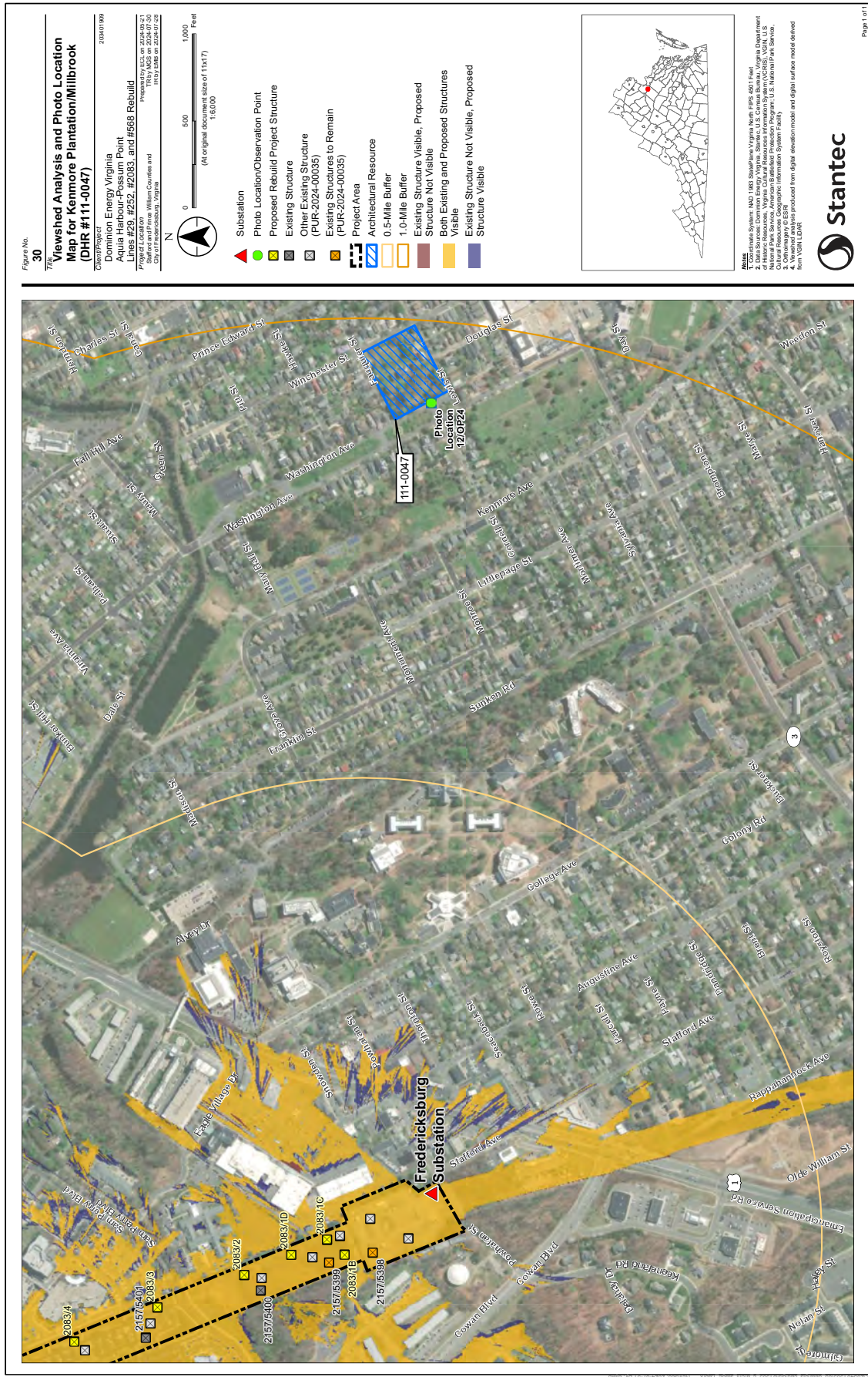
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height between the existing and new structure is 11 feet. According to field photography the existing transmission line is not visible (Figures 32; Appendix A).

Based on preliminary design, the existing structures associated with the Line #2083 segment of the Rebuild Project range in height from approximately 90 feet to 125 feet and the proposed Rebuild Project structures will be 115 feet in height, with an average change in height of 5 feet (Appendix A, Table A.1). Visual modeling for the Line #2083 Rebuild Project suggests that there is no visibility of the current transmission line structures and that there would be no visibility of proposed structures associated with Lines #2083 based on the preliminary design (Figure 29; Appendix C). Visual simulations prepared for the resource from OP 24, suggest that there may be limited visibility of Structure 2083/3 during leaf off conditions (Figure 30; Appendix C/OP 24). However, given the distance and built environment present between Kenmore Plantation and the Line #2083 Rebuild Project, it is likely that the change in viewshed due to the taller structures would be negligible. It is anticipated, therefore, that the proposed Line #2083 Rebuild Project will have **a Minimal Impact on Kenmore Plantation/Millbrook (DHR #111-0047).**



Figure 29 View from Kenmore Plantation/Millbrook (DHR #111-0047), Bank's Ford Battlefield (DHR #088-5181), Washington Avenue Historic District (DHR #111-5262) and Battle of Fredericksburg I & II (DHR #111-5295 and #111-5296; Photo Location 12/OP 24) Looking West. Existing Transmission Line is Not Visible.



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3.4.3 John Lewis House/Rowe House/War Hospital (DHR #111-0107)

The John Lewis House is a raised, two-story, four-bay, brick, Federal-style duplex. The dwelling was constructed around 1820 and features a two-story, full-width porch with stairs leading down to the English basement. The brick walls are laid in a Flemish bond on the façade and four-course American bond on the gable ends and rear. Two interior end brick chimneys are located in the northeast gable end. Added to the northeast gable end is a two-story wing with shed-roofed ell. The dwelling also features six-over-six, nine-over-nine, and nine-over-six wood sash windows (Figure 31). The only secondary resource noted on the property was a c. 1910 shed. The John Lewis House was listed in the NRHP in 2008 under Criterion C at a local level for its architectural merit. The dwelling is also considered a contributing resource to the Fredericksburg Historic District (DHR #111-0132; DHR Site Files; Worsham 2008).



Figure 31 View of John Lewis House/Rowe House/War Hospital (DHR #111-0107), Looking North.

3.4.3.1 Visual Effects Assessment

The John Lewis House/Rowe House/War Hospital is located within 1.0 mile of the Line #2083 Rebuild Project and sits close to Hanover Street in the City of Fredericksburg on a level lot. Several shrubs are located on the property of the John Lewis House with several larger trees located to the southwest and west of the house towards the edge of the lot. The lot is surrounded by early twentieth century dwellings with manicured lawns and large trees (Appendix B).

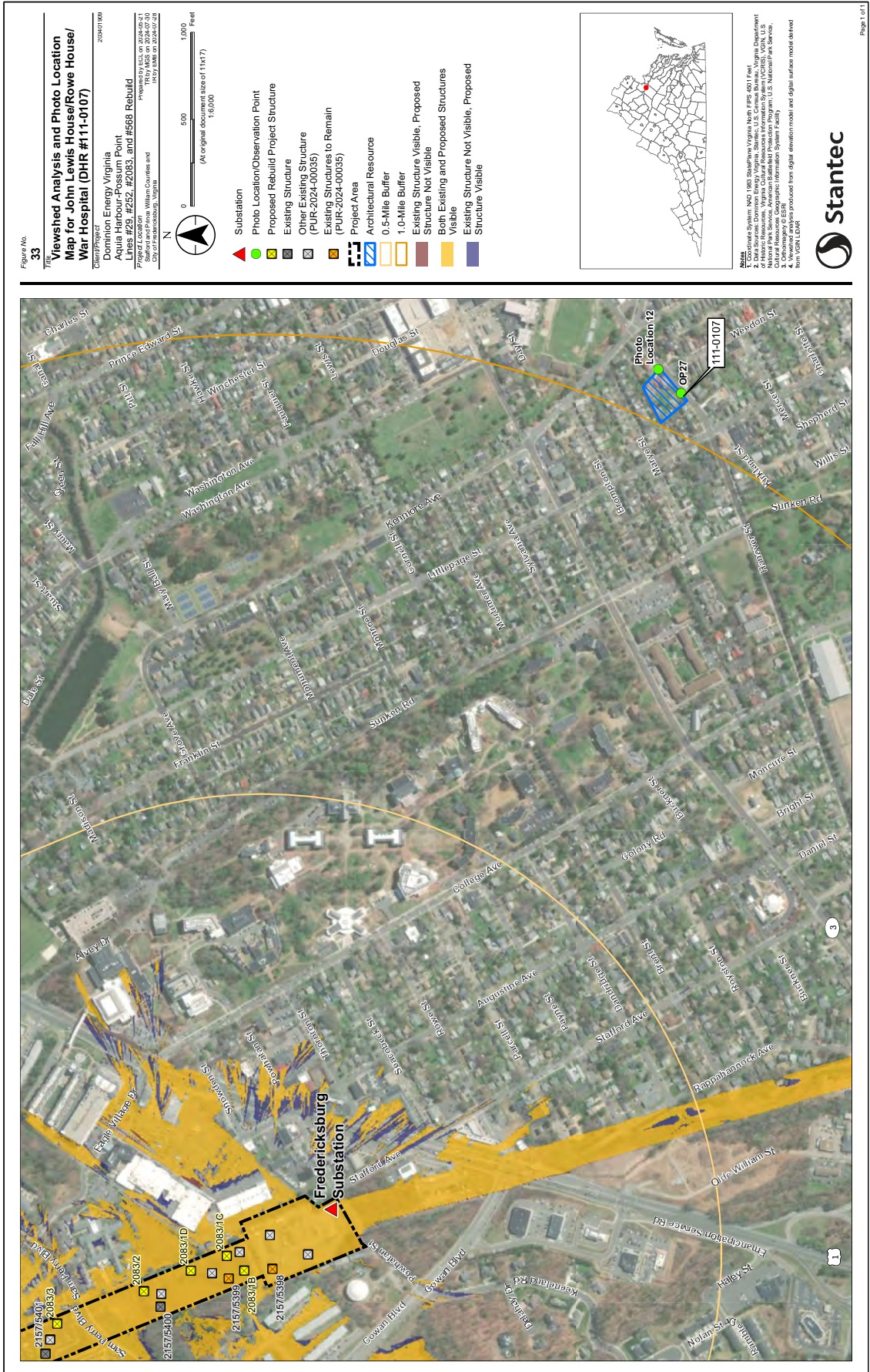


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The John Lewis House/Rowe House/War Hospital is located 5,112 feet to the southeast of the existing Rebuild Project corridor. The site visit indicates that, under current conditions, there is no visibility of the existing transmission line structures (Figure 32). Visual modeling and visual simulations prepared for the Line #2083 Rebuild Project further suggest that there is no visibility of the current transmission line structures and that there would be no visibility of proposed structures associated with Line #2083 based on the preliminary design (Figure 33; Appendix C/OP27). It is therefore anticipated that the proposed Line #2083 Rebuild Project will have ***No Visual Impact on the John Lewis House/Rowe House/War Hospital (DHR #111-0107).***



Figure 32 View from John Lewis House/Rowe House/War Hospital (DHR #111-0107), Chancellorsville Battlefield (DHR #088-5180), and Battle of Fredericksburg I and II (DHR #111-5295 and #111-5296; Photo Location 12/OP27) Looking Northwest. Existing Transmission Line is Not Visible.



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3.4.4 Fall Hill (DHR #111-0149)

The residence of Fall Hill was constructed around 1779 and is a two-story, three-bay, Georgian-style dwelling with brick exterior walls and a hipped roof sheathed in slate shingles. The brick walls are laid in a Flemish bond pattern on all four sides. The dwelling also features two large brick chimneys projecting through the southwest and northwest roof slope, respectively, as well as a one-story, three-bay, hipped roof porch centered on the façade and a second, smaller porch centered on the southwest elevation. A one-story addition was added to the building's northeast end. The windows and doors including their surrounds were replaced in the 1830s. More recently, the house experienced extensive damage, including a partially collapsed chimney as a result of the 2011 Mineral earthquake. The resource, however, was not visible from the public ROW during the site visit (Figure 34). The property was listed in the NRHP in 1973 for its significance in social and military history as well as for its architectural merit (DHR Site Files; VHLC 1973).



Figure 34. View of Fall Hill (DHR #111-0149), Looking Southwest (Photo is taken from the Transmission Line ROW Corridor).

3.4.4.1 Visual Effects Assessment

Fall Hill is located within the 0.5-mile radius of the Project corridor, sits back from the road on an approximately 70-acre parcel, and was not visible from the public ROW. A long circular gravel driveway provides access to the property and is flanked by dense areas of woods. Immediately surrounding the dwelling is a manicured lawn. The existing transmission line corridor crosses the property near its northeastern boundary (Figure 35). Between the proposed Line #2083 Rebuild Project line corridor and the resource is a combination of wooded land residential and commercial development (Appendix B). Fall Hill, at its closest point, is approximately 1,310 feet to the northwest of the Rebuild Project. The closest existing structure, Structure #2083/9 is 1,415 feet to the southeast of the Fall Hill resource boundary.

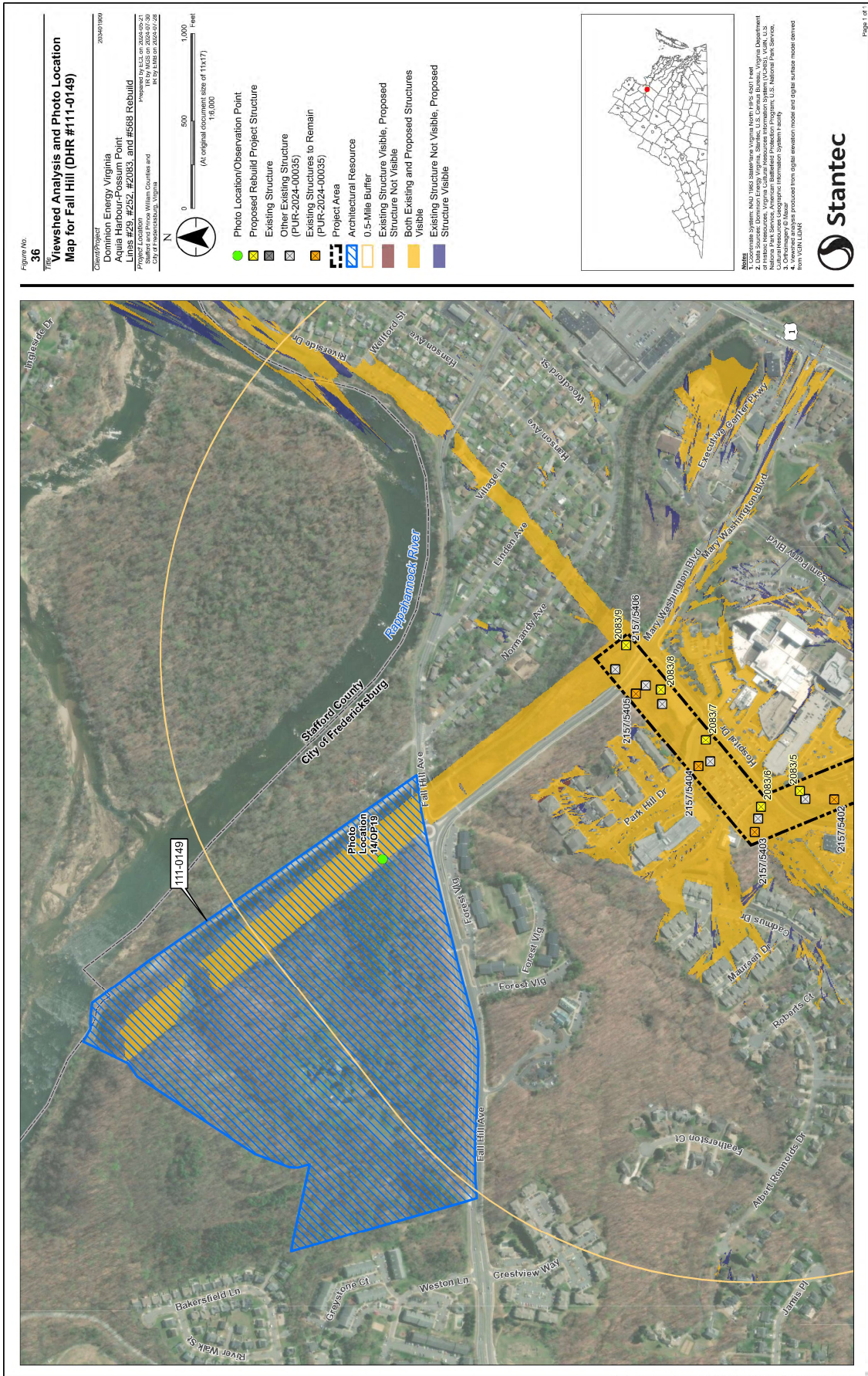


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Existing Structure 2083/9 has a height of approximately 125 feet (Appendix A). This structure will not be rebuilt as part of the Rebuild Project but will receive new conductor wire from the rebuilt Structure 2083/8. Therefore, there will be no change in structure height or appearance from the Rebuild Project. The simulations prepared for the Rebuild Project reflect structures that will be built under SCC Case #PUR-2024-00035. No other structures associated with Line #2083 will be visible from the resource according to the viewshed model or photo simulations (Figure 36; Appendix C OP19) and Structure 2083/8 is not expected to cumulatively result in an increase in impacts with SCC Case #PUR-2024-00035. As such, it is anticipated that the Rebuild Project will have **a Minimal Visual Impact on Fall Hill (DHR #111-0149)**.



Figure 35 View from the Eastern Edge of the Fall Hill Property (DHR #111-0149), Fredericksburg and Spotsylvania Battlefield NMP (DHR #111-0147), Bank's Ford Battlefield (088-5181) and Battle of Fredericksburg I and II (DHR #111-5295 and #111-5296; OP 19) Looking Southeast. Existing Transmission is Visible. The Red Arrow Points Generally to the location of Structure #2083/9.
Note: The transmission structures prominently illustrated in the photograph are not related to the current Rebuild Project.



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec disclaims any responsibility for the accuracy and completeness of the data.

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3.4.5 Carl's Frozen Custard Stand (DHR #111-5007)

Carl's Frozen Custard Stand is an Art Moderne-style restaurant built by Ashton Skinner in 1953, although Carl's Frozen Custard Stand has operated since 1947 in this location. The one-story restaurant is constructed of concrete block with a stucco finish and has a flat roof with a wide overhanging eave. A neon sign affixed to the roof reads, "Carl's" with "Crème Shakes Sundaes" underneath and a tilted ice cream cone at front where the two sides of the sign meet. Fenestration comprises stainless-steel framed-glass windows, with a central sliding glass service window, and three exterior doors of wood, metal, and glass. The service window has a cantilevered stainless-steel counter (Figure 37). Carl's Frozen Custard Stand was listed in the VLR in 2000 and in the NRHP in 2005 as a locally significant resource under Criteria A and C with a period of significance of 1947 to 1953 (Carison 2005; DHR Site Files).



Figure 37 View of Carl's Frozen Custard Stand (DHR #111-5007), Looking West.

3.4.5.1 Visual Effects Assessment

Carl's Frozen Custard Stand is located within 1.0 mile of the Line #2083 Rebuild Project at the corner of Princess Anne and Hunter streets in the City of Fredericksburg. The building is sited on a level lot and is surrounded by a paved parking lot. This portion of Princess Anne Street comprises a commercial strip with residential areas off the secondary roads to the southwest, west, and northwest. Areas of residential development in this area have been demolished and replaced by asphalt parking lots (Appendix B).

Carl's Frozen Custard is located 3980 feet to the northeast of the proposed Line #2083 Rebuild Project at its nearest point. Existing Structure #2083/9 is the closest structure to the Rebuild Project and will not be rebuilt (Table A.1). According to site visit photography the existing transmission line is not visible (Figure 38; Appendix A).



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Visual modeling and visual simulations prepared for the Line #2083 Rebuild Project further suggest that there is no visibility of the current transmission line structures and that there would be no visibility of proposed structures associated with Lines # 2083 based on the preliminary design (Figure 39; Appendix C/OP18). It is anticipated, therefore, that the proposed Line #2083 Rebuild Project will have **No Visual Impact on Carl's Frozen Custard Stand (DHR #111-5007)**.



Figure 38 View from Carl's Frozen Custard Stand (DHR #111-5007) and Battle of Fredericksburg I & II (DHR #111-5295 and #111-5296; Photo Location 15/OP18) Looking Southwest. Existing Transmission is Not Visible.