

Programmatic Categorical Exclusion (PCE)

Project Information

Project Name: George T. Snyder Trail

Federal Project#: CMAQ-5A01(955)

Project Number: U000-151-216_C501_P101, R201

Project Type: LAP – Trail Construction

UPC: 112816

Charge Number:

Route Number: NA

Route Type: Primary

Project Limit--From: Route 123 @ 3521 Chain Bridge Road

To: Wilcoxon Trail @ 9725 Fairfax Blvd.

Project Description: Construction of a multi-purpose trail connecting Chain Bridge Road (Route 123) to Wilcoxon Trail, south of Fairfax Boulevard Route 50. The trail will be an ADA compliant asphalt trail with four (4) bridges spanning small tributaries and Accotink Creek. Portions of the project will be constructed within Fairfax City parks. The trail will be 10-15 feet wide with 3-foot offsets running mostly along the southern side of Accotink Creek

Additional Project Description: Lighting, landscaping, and stormwater management are included in the project design.

Purpose and Need: The proposed trail is intended to fill in gaps in the existing regional network. It will connect from Chain Bridge Road at I-66 to the Wilcoxon Tail south of Route 50.

District: Northern Virginia **City/County:** City of Fairfax

Residency: Fairfax

The subject project meets the criteria for a Programmatic Categorical Exclusion in accordance with:

– 23 CFR 771.117

Description of PCE Category:

C-3 Construction of bicycle and pedestrian lanes, paths, and facilities.

UNUSUAL CIRCUMSTANCES (YES/NO):

NO Significant environmental impacts

Determination: No significant environmental impacts are anticipated as a result of this project, based on a review of the project scope and preliminary plans submitted to VDOT 2/5/2020.

NO Substantial controversy on environmental grounds

Determination: There has been no public opposition to the project. The George Snyder Trail Advisory Group (GSTAG) is a citizen committee is involved with project planning. Based on a review of the project scope, location, and preliminary plans submitted to VDOT 2/5/2020, no substantial controversy on environmental grounds is anticipated.

NO Significant impact on properties protected by Section 4(f) of the Department of Transportation Act or Section 106 of the National Historic Preservation Act

Determination: Stantec performed a Phase I archaeology and architectural survey. The SHPO determined that there is No Effect on Section 106 resources. Both the report and determination are in Appendix A.

This project is located within multiple City parks and is consistent with the FHWA's "Determination for Independent Bikeway or Walkway Construction Project". The FHWA approval of the 4(f) exception is in Appendix A.

NO Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action.

Determination: Based on preliminary plans submitted to VDOT 2/5/2020, all Federal, State, and local laws, requirements, or administrative determinations will be adhered to throughout the lifespan of this project.

IMPACTS (YES/NO):

- NO** Involves acquisition of more than minor amounts of temporary or permanent right of way acquisition
Determination: Based on preliminary plans submitted to VDOT 2/5/2020, the project does not involve more than minor amounts of permanent easement acquisition from 11 parcels. Most of the project area is already owned by the City of Fairfax. The preliminary ROW Data Sheet dated 2/5/2020 is attached in Appendix B.
- NO** Involves acquisitions that result in more than limited residential and non-residential displacements, based on the context and intensity of the impact.
Determination: Based on the preliminary plans submitted to VDOT 2/5/2020, there are no residential or non-residential displacements.
- NO** Results in capacity expansion of a roadway by addition of through lanes.
Determination: The project scope does not include the addition of through lanes.
- NO** Involves the construction of temporary access, or the closure of an existing road, bridge, or ramps, that would result in major traffic disruptions, based on the context and intensity of the impact
Determination: Based on a review of the project scope and location, there will be no major traffic disruptions.
- NO** Results in a determination of adverse effect on historic properties pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. §306108)
Determination: Based on the Phase I cultural resources survey and report, dated 10/10/2019, SHPO made a determination of No Effect on historic properties on 1/16/2020. Both are attached in Appendix A.
- NO** Requires the use of properties protected by Section 4(f) (49 U.S.C. § 303/23 U.S.C. § 138) that cannot be documented with an FHWA *de minimis* determination, or a programmatic Section 4(f) evaluation signed by FHWA.
Determination: The project will enhance activities, features, or attributes of five Fairfax City parks considered Section 4(f) resources and is consistent with the FHWA's "Determination for Independent Bikeway or Walkway Construction Project". The project qualifies for a Section 4(f) exception approved by the FHWA on 1/15/2020, attached in Appendix A.
- NO** Requires the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act of 1965 (54 U.S.C. § 200305) or other unique areas or special lands that were acquired in fee or easement with federal public-use-money and have deed restrictions or covenants on the property.
Determination: Based on the preliminary plans submitted to VDOT on 2/5/220 and the preliminary RW data sheet dated 2/5/2020, there is no acquisition of lands protected under the protection of Section 6(f).
- NO** Requires a U.S. Army Corps of Engineers Section 404 (33 U.S.C. § 1344 permit other than a Nationwide or a General Permit
Determination: The project will qualify for a NW# 23. The Preliminary Jurisdictional Determination is in Appendix C.
- NO** Requires a U.S. Coast Guard bridge permit (33 U.S.C. § 401).
Determination: The project scope and preliminary plan submitted to VDOT on 2/5/2020 do not include bridgework over navigable waters of the U.S.; therefore, a U.S. Coast Guard bridge permit is not required.
- NO** Requires work that will cause an increase of the flood level by more than one foot within a regulatory floodway of water courses or water bodies or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to 23 CFR §650 subpart A.
Determination: Based on preliminary plans submitted 2/5/2020, there will not be a flood level increase in the 100-year flood of more than one foot. Hydraulic/hydrologic studies will continue to be refined through final plans.
- NO** Is defined as a "Type I project" per 23 CFR §772.5 and the VDOT noise manual for purposes of a noise analysis
Determination: In accordance with 23 CFR §772.5 and VDOT's Updated Air and Noise Scoping Requirements for PCE Agreement guidance dated 06/27/2014, this project is a Type III project; therefore, a noise analysis is not required.
- NO** Is likely to adversely affect federally listed species or designated critical habitat, with the exception of a "may affect, likely to adversely affect" (MALAA) determination for the Northern Long-Eared Bat or Indiana Bat when the project is within the scope of the Section 7 range-wide programmatic consultation for those species
Determination: The Self-certification packet was submitted to the US Fish and Wildlife Service (USFWS) on 1/24/2020 and is attached in Appendix D. No comments were received from USFWS within the 30-day comment period.
- NO** Involves any known or potential hazardous materials issues that represent a substantial liability or require substantial regulatory negotiation to resolve. Sites representing substantial liability would not include minor issues such as low-level petroleum impacts or minimal solid waste.
Determination: Per the Hazardous Materials Due Diligence Certification for Locally Administered Projects (EQ-121) signed 1/24/2020, there are no known or potential hazardous materials issues within the project right of way based on the VGIS database. A map of the project area and the EQ-121 is attached in Appendix E.

- NO** Does not meet the provisions of the “Planning Documents and NEPA Approvals” document. In accordance with 23 CFR §450 and the FHWA/VDOT/Federal Transit Administration/Virginia Department of Rail and Public Transportation MOA Statewide Transportation Improvement Program (STIP) Procedures MOA, actions listed in 23 CFR §771.117(c) and 23 CFR §771.117(d) may be grouped.
Determination: This project meets the provisions of 23 CFR 771.117(c)(3). The project is included in the STIP Grouping for Construction: Transportation Enhancement/Byway/Non-traditional.
- NO** Causes disproportionately high and adverse effects on any minority or low-income populations.
Determination: Based on the project scope and preliminary plans submitted to VDOT 2/5/2020, there are no relocations, displacements, or disruptions of community or emergency services associated with the project; therefore, no minority or low-income populations would be adversely impacted.
- NO** Involves consideration of multiple NEPA alternatives.
Determination: The project scope of work is limited and does not involve multiple NEPA alternatives.
- NO** Is an action listed in 23 CFR §771.115(a)?
Determination: The project scope does not include an action listed in 23 CFR §771.115(a) and qualifies for a Programmatic Categorical Exclusion (PCE) pursuant to VDOT/FHWA’s Programmatic Agreement for Categorical Exclusions, dated 10/2017.
- NO** Involves unusual circumstances, pursuant to 23 CFR §771.117(b).
Determination: The project does not involve unusual circumstances, pursuant to 23 CFR §771.117(b).

Environmental Manager, CE Determination

Date

ATTACHMENT A

Section 106 and 4(f)

From: [Stewart, Brynn](#)
To: [Cummings, Loretta](#)
Subject: FW: George T. Snyder Trail project from Chain Bridge Road to the Wilcoxon Trail, Fairfax Co. (2019-0620)
Date: Thursday, January 16, 2020 3:17:28 PM

Hi Loretta,

Please see below for VDHRs response to Snyder Trail.

Brynn

From: Holma, Marc <marc.holma@dhr.virginia.gov>
Sent: Thursday, January 16, 2020 3:15 PM
To: Stewart, Brynn <brynn.stewart@stantec.com>
Subject: George T. Snyder Trail project from Chain Bridge Road to the Wilcoxon Trail, Fairfax Co. (2019-0620)

Dear Mr. Stewart:

The DHR has received your letter dated 7 January 2020 with the accompanying design plans and archaeological survey mapping for the above referenced project. Please accept this email as DHR's official response concurring that the proposed undertaking will have No Effect to historic properties.

Sincerely,
Marc Holma

--

Marc Holma
Architectural Historian
Division of Review and Compliance
(804) 482-6090
marc.holma@dhr.virginia.gov

UPC 112816 George T. Snyder Trail 4(f) Exception

Simkins, John (FHWA) <John.Simkins@dot.gov>
To: "Fertal, Linda" <linda.fertal@vdot.virginia.gov>

Wed, Jan 15, 2020 at 3:07 PM

Linda,

FHWA finds that the project's involvement with the five parks qualifies as a Section 4(f) exception pursuant to 23 CFR 774.13(g).

John

John Simkins
Planning, Environment, Realty, and Freight Team Leader
FHWA - Virginia Division
804-775-3347
John.Simkins@dot.gov

From: Fertal, Linda <linda.fertal@vdot.virginia.gov>
Sent: Wednesday, January 15, 2020 9:54 AM
To: Simkins, John (FHWA)
Subject: UPC 112816 George T. Snyder Trail 4(f) Exception

Good morning Mr. Simkins,

Please find attached the City of Fairfax concurrence with the exception to Section 4(f) under 23 CFR 774.13 (g) for the construction of the George T. Snyder Trail within five Fairfax City public parks: Shiloh Street Park, Stafford West Park, Stafford East Park, Ranger Road Road, and Draper Drive Park.

Do you approve of this exception to Section 4(f)?

Linda Fertal | Environmental Specialist | Virginia Department of Transportation | 4975 Alliance Drive, Fairfax, VA 22030 | 703-259-1729



**A Phase I Cultural Resources
Investigation of Approximately 42.41
Acres Associated with the George T.
Snyder Trail Project from Chain Bridge
Road to the Wilcoxon Trail, Fairfax
County, Virginia**

VDOT Project No.: U000-151-216, C501,
P101, R201 (UPC 112816)

October 10, 2019

Prepared for:

City of Fairfax
Cathy Salgado
Director of Parks and Recreation
10455 Armstrong Street
Fairfax VA 22030

and

Virginia Department of Transportation
Northern Virginia District
4975 Alliance Drive
Fairfax VA 22030

Prepared by:

Donald Sadler, Project Archeologist

Sandra DeChard, Senior Architectural
Historian

and

Brynn Stewart, Senior Principal Investigator

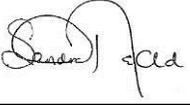
Stantec Consulting Services Inc.
5209 Center Street
Williamsburg VA 23188
(757) 220-6869

**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE
WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

This document entitled A Phase I Cultural Resources Investigation of Approximately 42.41 Acres Associated with the George T. Snyder Trail Project from Chain Bridge Road to the Wilcoxon Trail, Fairfax County, Virginia was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of the City of Fairfax (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)

Donald Sadler MA, Project Archaeologist

Prepared by  _____
(signature)

Sandra DeChard MA, Senior Architectural Historian

Reviewed by  _____
(signature)

Brynn Stewart MA, Senior Principal Investigator

A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
 ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
 THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

Table of Contents

1.0	INTRODUCTION	1.1
2.0	PHYSICAL AND ENVIRONMENTAL CONTEXT	2.1
2.1	INTRODUCTION.....	2.1
2.2	TOPOGRAPHY AND GEOLOGY.....	2.1
2.3	HYDROLOGY.....	2.1
2.4	SOIL MORPHOLOGY.....	2.1
2.5	NATURAL RESOURCES.....	2.2
3.0	CULTURAL CONTEXT	3.1
3.1	INTRODUCTION.....	3.1
3.2	PRE-CLOVIS (?–13,000 BC).....	3.1
3.3	PALEOINDIAN (PRIOR TO 8000 BC).....	3.2
3.4	ARCHAIC PERIOD (8000–1200 BC).....	3.2
3.4.1	Early Archaic (8000–6500 BC).....	3.3
3.4.2	Middle Archaic (6500–3000 BC).....	3.3
3.4.3	Late Archaic (3000–1200 BC).....	3.4
3.5	WOODLAND PERIOD (1200 BC–AD 1606).....	3.4
3.5.1	Early Woodland (1200–300 BC).....	3.5
3.5.2	Middle Woodland (300 BC–AD 1000).....	3.6
3.5.3	Late Woodland (AD 1000–1606).....	3.7
3.6	SETTLEMENT TO SOCIETY (1607–1750).....	3.8
3.7	COLONY TO NATION (1751–1789).....	3.11
3.8	EARLY NATIONAL PERIOD (1790–1829).....	3.12
3.9	ANTEBELLUM PERIOD (1830–1860).....	3.14
3.10	CIVIL WAR (1861–1865).....	3.15
3.11	RECONSTRUCTION AND GROWTH (1866–1916).....	3.17
3.12	WORLD WAR I AND WORLD WAR II (1917–1945).....	3.18
3.13	THE NEW DOMINION (1946–PRESENT).....	3.19
4.0	RESEARCH DESIGN	4.20
4.1	OBJECTIVES.....	4.20
4.2	PREVIOUS INVESTIGATIONS.....	4.20
4.2.1	Archaeological Sites.....	4.20
4.2.2	Architectural Resources.....	4.23
5.0	SURVEY METHODOLOGY	5.1
5.1	ARCHAEOLOGICAL SURVEY.....	5.1
5.2	ARCHITECTURAL SURVEY.....	5.1
5.3	EXPECTED RESULTS.....	5.1
6.0	ARCHAEOLOGICAL SURVEY RESULTS	6.1
6.1	ARCHAEOLOGICAL SURVEY.....	6.1

**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

6.2	ARCHAEOLOGICAL RESULTS	6.5
6.2.1	Landscape Features	6.5
7.0	ARCHITECTURAL SURVEY RESULTS	7.1
7.1	PHASE I ARCHITECTURAL SURVEY	7.1
7.1.1	Previously Recorded Resources	7.1
7.1.2	Newly Recorded Resources	7.4
8.0	CONCLUSIONS AND RECOMMENDATIONS	8.1
9.0	REFERENCES	9.1

LIST OF TABLES

Table 1	Key to the Soils Map	2.1
Table 2	Previously Identified Archaeological Sites within a 1-Mile Radius of the Study Area	4.20
Table 3	Previously Identified Architectural Resources within a 1-Mile Radius of the Study Area	4.23
Table 4	STP 12 Soil Profile	6.5
Table 5	STP 17 Soil Profile	6.5
Table 6	Previously Recorded Architectural Resources within the Snyder Trail Project Area	7.1
Table 7	Newly Recorded Architectural Resources Surveyed within the Snyder Trail Project Area	7.4
Table 8	NRHP Eligibility Recommendations for Architectural Resources Surveyed within the Snyder Trail Project	8.2

LIST OF FIGURES

Figure 1	Location of the Project Area	1.2
Figure 2	Soil Map	2.3
Figure 3	Detail of <i>Virginia / discovered and discribed by Captayn John Smith, 1606 ; graven by William Hole</i> . Depicting the Project Area Vicinity (Smith 1624; Library of Congress Geography and Map Collection)	3.10
Figure 4	Detail of <i>A survey of the northern neck of Virginia, being the lands belonging to the Rt. Honourable Thomas Lord Fairfax Baron Cameron, bounded by & within the Bay of Chesapoyocke and between the rivers Rappahannock and Potowmack: With the courses of the rivers Rappahannock and Potowmack, in Virginia, as surveyed according to order in the years 1736 & 1737</i> . Depicting the Project Area Vicinity (Warner 1747?; Library of Congress Geography and Map Division)	3.11
Figure 5	Detail of <i>View of Richmond, Metropolis of Virginia (upper right sheet)</i> Depicting the Project Area Vicinity (Madison 1818; David Rumsey Map Collection)	3.13
Figure 6	Detail of <i>A map of the state of Virginia: reduced from the nine sheet map of the state in conformity to law / by Herman Böye, 1828</i> . Depicting the Project Area Vicinity (Böye 1859; David Rumsey Map Collection)	3.14

**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

Figure 7 Detail of [A map of Fairfax County, and parts of Loudoun and Prince William Counties, Va., and the District of Columbia]. Depicting the Project Area Vicinity (Hoffmann and Brown n.d.; Library of Congress Geography and Map Division).....3.16

Figure 8 Detail of [Map of Fairfax and Alexandria counties, Virginia, and parts of adjoining counties] Depicting the Project Area Vicinity (Michler 1864; Library of Congress Geography and Map Division).3.17

Figure 9 Previously Identified Archaeological Sites Located within a 1-Mile Radius of the Project Area..... 4.24

Figure 10 Previously Identified Architectural Resources Located within a 1-Mile Radius of the Project Area.....4.25

Figure 11 West End of Project Area Looking toward STP 1; View to the Southeast.....6.1

Figure 12 Raised Berm of Abandoned Railroad with Aged Poplars Crossing Project Area; View to the Northeast.....6.2

Figure 13 Silted Drainage Area in Western Center of Project Area; View to the Northwest.....6.2

Figure 14 Truncated Hilltop with Construction Push Piles and Park Structures; View to.....6.3

Figure 15 Lane Etched into Slope Flanked by Aged Oaks; View to the Northeast.....6.3

Figure 16 Modern Stream Restoration and Sewer Drain at Northeastern Point of Project.....6.4

Figure 17 Extreme Slope at Northeastern Edge of Project Area; View to the North.....6.4

Figure 18 Active Tent Camp at the Eastern End of the Western Project Area Segment; View to the North.....6.6

Figure 19 Gravel Path near the Center of the Central Project Area Segment; View to the Northeast.....6.7

Figure 20 Modern Stone Stream Restoration Structure in the Eastern Project Area Segment; View to the Southwest.....6.7

Figure 21 Modern Stone Stream Restoration Structure in the Eastern Project Area Segment; View to the Southeast.....6.8

Figure 22 Commercial Building (VDHR #151-5222), 9772 Lee Highway, View Looking Northwest.....7.2

Figure 23 Commercial Building (VDHR #151-5223), 9780 Lee Highway, View Looking Northwest.....7.3

Figure 24 Commercial Building (VDHR #151-5224), 9788 Lee Highway, View Looking Northeast.....7.3

Figure 25 Dwelling (VDHR #151-5557), 3401 Chain Bridge Road, View Looking Northeast.....7.5

Figure 26 Playhouse (VDHR #151-5557), 3401 Chain Bridge Road, View Looking Northeast.....7.5

LIST OF APPENDICES

APPENDIX A ARCHAEOLOGICAL BASE MAPA.1

APPENDIX B SURVEYED ARCHITECTURAL RESOURCES.....B.1

APPENDIX C V-CRIS FORMS.....C.1

APPENDIX D KEY PERSONNEL RESUMESD.1

A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

Executive Summary

From June 1–3, 2019, and on July 19, 2019, Stantec Consulting Services Inc. (Stantec) conducted a Phase I cultural resources survey of approximately 42.41 acres associated with the proposed George T. Snyder (GTS) Trail from Chain Bridge Road to the Wilcoxon Park Trail, Section 1, in Fairfax County, Virginia. The project area is comprised of woodland representing both City owned park land and private property on either side of Accotink Creek. The project area was primarily situated between residential neighborhoods. The work was conducted on behalf of the City of Fairfax.

Stantec designed the Phase I cultural resources survey to locate and identify archaeological and architectural resources within the defined project area and to obtain sufficient information to make recommendations regarding their potential eligibility for listing to the National Register of Historic Places (NRHP). During the archaeological survey, Stantec conducted pedestrian survey of the entire 42.41-acre project area, in conjunction with systematic subsurface testing. Much of the project area was sloped, wet, or disturbed. A total of 18 shovel tests were excavated at 25-foot intervals along level landforms within the project area. No shovel tests were positive for cultural material.

No new archaeological resources were identified during this survey. Given the significant disturbance to the project area caused by the presence of buried utilities, abandoned railroads, construction debris, sewers, drainage areas, and sloped landforms, as well as the presence of wetland and saturated soils, the project area lacks subsurface integrity and retains little to no research potential. ***Stantec recommends that no further archaeological investigation is necessary within the project area.***

Architecture Survey

A total of four individual architectural resources were surveyed and included three previously recorded resources and one newly recorded resource. None of the previously recorded resources surveyed during the current project have been evaluated for NRHP eligibility by VDHR. The Mosby Woods Historic District (VDHR #151-5519) and the Washington and Virginia Railway Company rail line (VDHR #029-5470) are located adjacent to and cross the project area, respectively; however, the resources have been determined by VDHR as not eligible for listing within the last five years and therefore were not resurveyed during the current undertaking.

The newly and previously recorded resources, though generally reflective of the late to mid-twentieth century development of Fairfax County, lack direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resources are not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered applicable in regards to the architectural survey. ***No further work is recommended for the newly and previously recorded resources as part of the Snyder Trail project.***

A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

Abbreviations

amsl	above mean sea level
ATC, Inc.	Archeological Testing and Consulting, Inc.
Berger	Louis Berger & Associates, Inc.
DEQ	Department of Environmental Quality
Dovetail	Dovetail Cultural Resource Group
GIS	Geographic Information System
GPS	Global Positional System
Milner	John Milner Associates, Inc.
n.d.	no date
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
Stantec	Stantec Consulting Services Inc.
STP	Shovel Test Pit
TAA	Thunderbird Archaeological Associates
USDI	United States Department of the Interior
USGS	United States Geological Survey
V-CRIS	Virginia Cultural Resources Information System
VDHR	Virginia Department of Historic Resources
WMCAR	William and Mary Center for Archaeological Research



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

Introduction

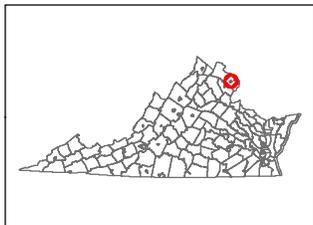
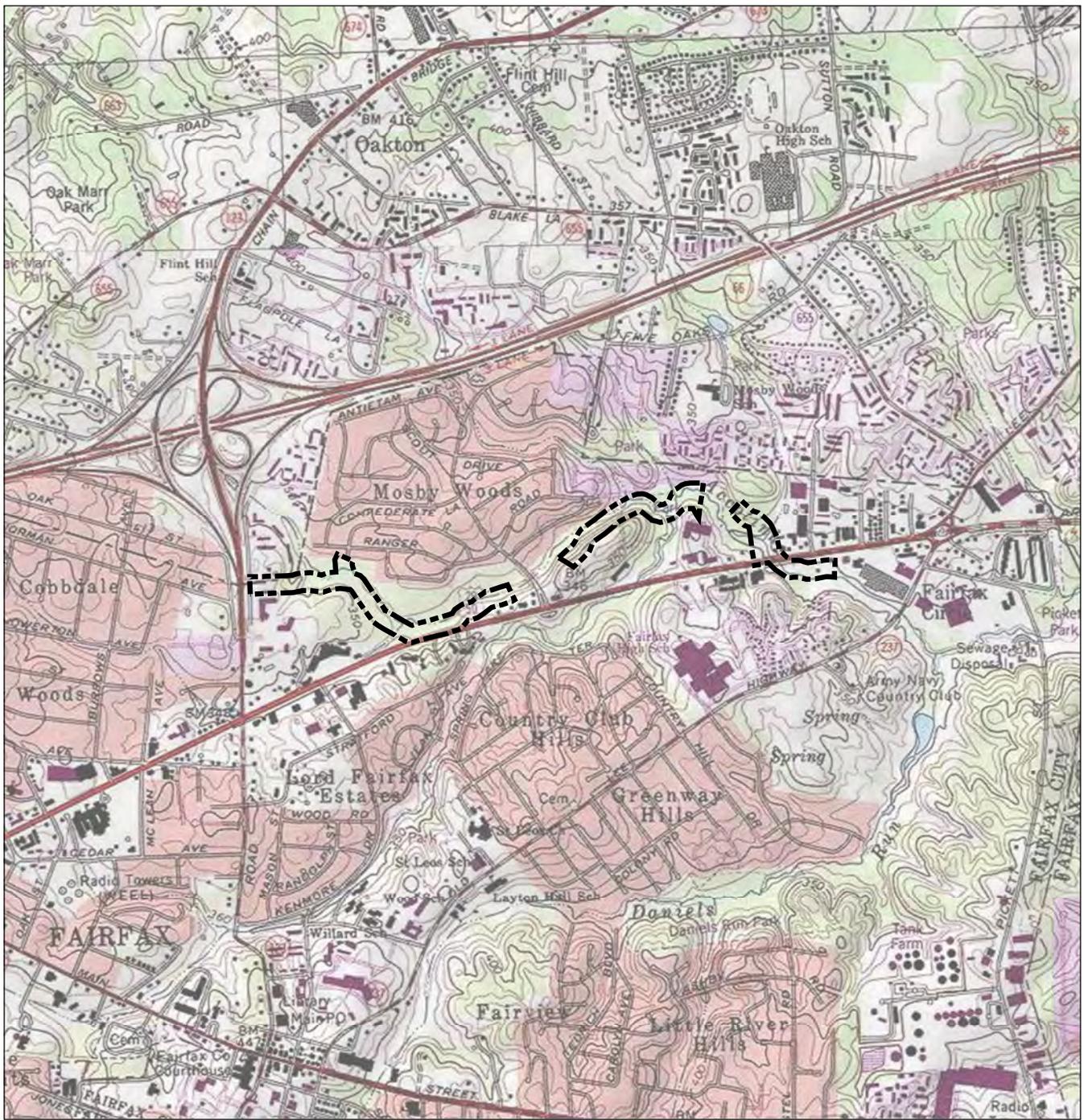
1.0 INTRODUCTION

From June 1–3, 2019, and on July 19, 2019, Stantec conducted a Phase I cultural resources survey of approximately 42.41 acres associated with the proposed GTS Trail from Chain Bridge Road to the Wilcoxon Park Trail, Section 1, in Fairfax County, Virginia. The project area is comprised of woodland representing both City owned park land and private property on either side of Accotink Creek. The project area was primarily situated between residential neighborhoods (Figure 1). The work was conducted on behalf of the City of Fairfax.

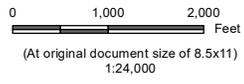
Stantec designed the cultural resources survey to identify all archaeological and architectural resources that may be present in the proposed project area and to obtain sufficient information to make recommendations based on their potential eligibility to the NRHP. Documentary research and archaeological field testing were conducted in compliance with the National Historic Preservation Act of 1966 (NHPA-PL89-665), as amended, the Archaeological and Historic Preservation Act of 1974, Executive Order 11593, relevant sections of 36 CFR 60 and 36 CFR 800, Fairfax County Park Authority Policy 203 – Cultural Resources (2013; <http://www.fairfaxcounty.gov/parks/parkpolicy/park-policy.pdf>), and the Fairfax County Comprehensive Plan – Heritage Resources, amended through April 29, 2014 (<http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/heritage.pdf>). The archaeological investigations were conducted with reference to state (*Guidelines for Conducting Historic Resources Survey in Virginia* [VDHR 2017]) and federal guidelines (*Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* [United States Department of the Interior {USDI} 1983]) for conducting archaeological investigations. Laboratory curation of cultural materials collected during the studies were made with regard to federal (36 CFR 79) and state (State Curation Standards [VDHR 1993]) guidelines.

Senior Principal Investigator Brynn Stewart oversaw the project. Project Archaeologist Donald Sadler and Senior Architectural Historian Sandra DeChard co-authored the resulting technical report. Project Archaeologist Taft Kiser conducted the archaeological fieldwork. The architectural survey was conducted by Emily Curme, Architectural Historian/Lab Director. Geographic Information System (GIS) Specialist Lauren Berryman prepared the report graphics and project maps. Copies of all field notes, maps, correspondence, and historical research materials are on file at Stantec's office in Richmond, Virginia.





 Study Area



Project Location Prepared by LJB on 2019-03-15
 City of Fairfax, Virginia TR by ECL on 2019-04-04
 IR by AL on 2019-05-07
Client/Project 2026271807
 City of Fairfax
 George T. Snyder Trail

Figure No.
 1
Title
 Project Location Map

U:\2026271807\700 CADD\704 GIS\2026271807 c loc.mxd Revised: 2019-08-13 By: lberman

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 assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

PHYSICAL AND ENVIRONMENTAL CONTEXT

2.0 PHYSICAL AND ENVIRONMENTAL CONTEXT

2.1 INTRODUCTION

The project area is located on relatively level to steeply sloping land and consists primarily of woodland on either side of Accotink Creek. The project area includes park land owned by Fairfax County as well as private lands. A small portion of the eastern end of the project area extends through an athletic field.

2.2 TOPOGRAPHY AND GEOLOGY

The approximately 42.41-acre project area is located within the Outer Piedmont sub province of the Piedmont physiographic province. The Outer Piedmont sub province exhibits "...broad upland with low to moderate slopes" (Roberts and Bailey 2000). In general, the broader Piedmont province consists of broad ridges and flat to gently rolling topography; north/south trending dendritic drainages dominate this province (Isgrig and Stroebel 1974). Elevation within the project area ranges from approximately 299 to 363 feet above mean sea level (amsl).

A variety of predominantly Proterozoic and Paleozoic igneous and metamorphic rock constitute the bedrock in Virginia's Piedmont physiographic province. This bedrock forms the core of the Appalachian Mountain belt while a number of grabens (elongated depressions between geologic faults) and half grabens contain Triassic sedimentary rocks, diabase dikes, and basalt flows (The College of William and Mary Department of Geology 2011 and the Virginia Department of Environmental Quality [D.E.Q] n.d.).

2.3 HYDROLOGY

The project area is drained by Accotink Creek, which flows into Accotink Bay and Pohick Bay on the Potomac River. The Potomac River flows into the Chesapeake Bay and thence to the Atlantic Ocean.

2.4 SOIL MORPHOLOGY

The soils in the project area range from somewhat poorly drained to well drained. Table 1 presents the soil types found within the project area and serves as a key to Figure 2.

Table 1 Key to the Soils Map

Symbol	Map Unit Name	Percent Slope	Drainage Description
29A	Codorus Silt Loam	0-2%	Somewhat Poorly Drained
95	Urban Land	--	--
102	Wheaton Loam	2-25%	Well Drained
105B	Wheaton-Glenelg Complex	2-7%	Well Drained
105C	Wheaton-Glenelg Complex	7-15%	Well Drained
107B	Wheaton-Meadowville Complex	2-7%	Well Drained
30A	Codorus and Hatboro Soils	0-2%	Somewhat Poorly Drained
39C	Glenelg Silt Loam	7-15%	Well Drained



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

PHYSICAL AND ENVIRONMENTAL CONTEXT

39D	Glenelg Silt Loam	15-25%	Well Drained
101	Urban Land-Wheaton Complex	--	Well Drained
39E	Glenelg Silt Loam	25-45%	Well Drained
102	Wheaton Loam	2-25%	Well Drained

2.5 NATURAL RESOURCES

The character of the topography, the proximity of water resources, and the types of soils all have a direct effect on the variety of flora that is attracted to the setting and in turn, the fauna that relies on that ecological setting for sustenance. The quantity and variety of both plants and animals in an area has a direct influence on human habitation. Native American populations successfully utilized a wide variety of native flora and fauna whose seasonal availability was well-known to them. New settlers relied on available timber to build shelter and in part, on procurable plants and animals to augment their diet. It would be difficult for a Woodland Indian in AD 900, a colonial planter in 1750, or a farmer in 1870 to have prospered without certain key natural resources (Dent 1995).

During the Holocene, prior to European contact, this region of Virginia supported a diverse biotic and floral community. The riverine area, dominated by hardwoods, provided shallow water environments beneficial to shellfish and baitfish, as well as a wide variety of amphibians, reptiles, and larger fishes. This habitat also supported numerous avian species, including raptors. The uplands of the interior supported numerous species of large game animals such as elk and whitetail deer, as well as predators including black bear, eastern gray wolf, and bobcat (Dent 1995).



Map Unit Symbol	Description
29A	Codorus silt loam, 0 to 2 percent slopes, occasionally flooded
30A	Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded
39B	Glenelg silt loam, 2 to 7 percent slopes
39C	Glenelg silt loam, 7 to 15 percent slopes
39D	Glenelg silt loam, 15 to 25 percent slopes
95	Urban land
101	Urban land-Wheaton complex
102	Wheaton loam, 2 to 25 percent slopes
105B	Wheaton - Glenelg complex, 2 to 7 percent slopes
105C	Wheaton - Glenelg complex, 7 to 15 percent slopes
107B	Wheaton - Meadowville complex, 2 to 7 percent slopes

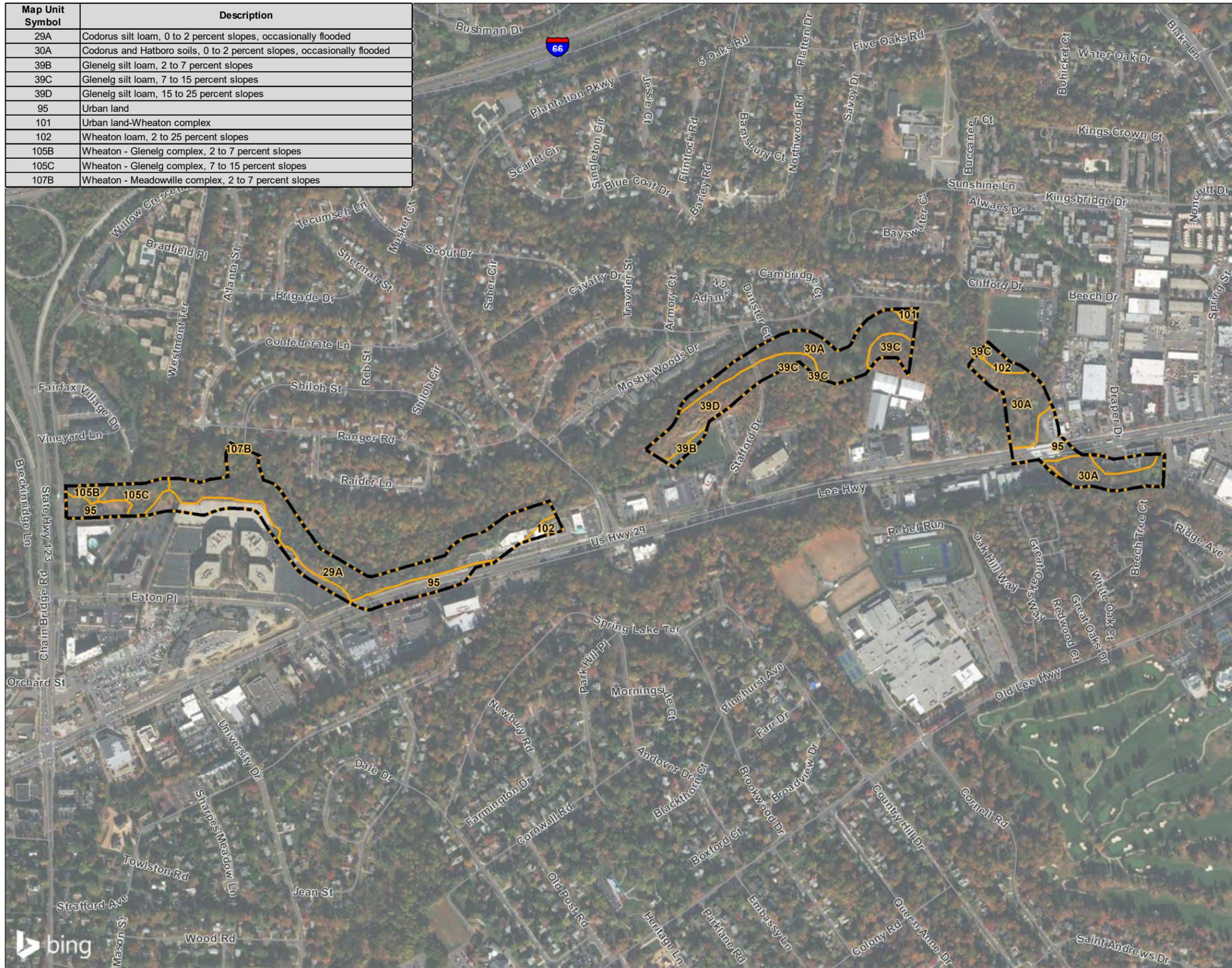


Figure No.

2

Title

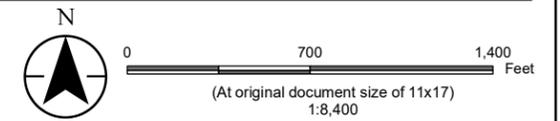
Soils Map

Client/Project
 City of Fairfax
 George T. Snyder Trail

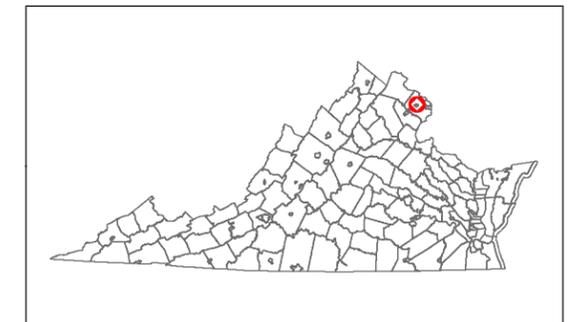
2026271807

Project Location
 City of Fairfax, Virginia

Prepared by LJB on 2019-03-15
 TR by ECL on 2019-04-04
 IR by AL on 2019-05-07



- Study Area
- Soils



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
 2. Data Sources: Stantec, USDA NRCS SSURGO Soil Survey
 3. Orthoimagery © Bing Maps
 4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



U:\2026271807\700 CADD\704 GIS\2026271807_c_soils.mxd Revised: 2019-08-13 By: lbernyman

A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

3.0 CULTURAL CONTEXT

3.1 INTRODUCTION

Virginia's Native American prehistory is typically divided into three main periods, Paleoindian, Archaic, and Woodland and based on changes in material culture and settlement systems. In recent decades, the possibility of human presence in the region that pre-dates the Paleoindian period has moved from remote to probable. For this reason, a Pre-Clovis discussion precedes the traditional tripartite division of Virginia's Native American history. The seventeenth-through twentieth-century historical overview follows the VDHR's guidelines (2017). The cultural context, as defined by the Secretary of the Interior's Standards and Guidelines for Archeology and Chapter 3 of VDHR's 2017 guidelines, provides the historic, social, and environmental information required for evaluation of any cultural resources present within the proposed study area.

3.2 PRE-CLOVIS (?–13,000 BC)

The 1927 discovery, at Folsom, New Mexico, of a fluted point in the ribs of an extinct species of bison proved that ancient North Americans had immigrated during the Pleistocene. It did not, however, establish the precise timing of the arrival of humans in the Americas, nor did it adequately resolve questions about the lifestyle of those societies (Meltzer 1988:2-3). Both the stratigraphic record and the radiocarbon assays from several sites, including the Cactus Hill site in Sussex County, Virginia, suggest the possibility of human occupation of Virginia before the fluted-point makers appeared on the scene (McAvoy and McAvoy 1997). Buried strata at the Cactus Hill site have returned radiocarbon dates of 15,000 years ago from strata below levels containing fluted points (McAvoy and McAvoy 1997:165).

McAvoy's team encountered artifacts and charcoal separated from the Paleoindian level by 3 to 4 inches (7.6 to 10.2 centimeters) of sterile sands. Subsequent fieldwork confirmed the presence of artifact-bearing strata located between 3 and 8 inches (7.6 and 20.3 centimeters) below the fluted-point levels. The artifacts recovered from the pre-fluted-point levels present a striking contrast with the tool kit typically used by Paleoindians. Rather than relying on extensively finished chert knives, scraping tools, and spear points, the pre-Clovis peoples used a different, but highly refined stone technology. Prismatic blade-like flakes of quartzite, chipped from specially prepared cobbles and lightly worked along one side to produce a sharp edge, constitute the majority of the stone cutting and scraping tools. Sandstone grinding and abrading tools, possibly indicating production of wood and bone tools or ornaments, also occurred in significant numbers in the deepest artifact-bearing strata. Because these tools do not possess unique characteristics which immediately identify them as dating to the Pleistocene, archaeologists must recognize the possibility that pre-Clovis sites have been overlooked for years. At present, only a handful of potential pre-Clovis sites have been identified in North America. The probability of discovering pre-Clovis remains within the proposed project area is, consequently, extremely low.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

3.3 PALEOINDIAN (PRIOR TO 8000 BC)

In the decades following the discovery at Folsom, New Mexico, the association of fluted points with the bones of large, extinct mammals, in particular mastodons, on the western plains coupled with the scarcity of other Paleoindian sites, led to the inference that the Paleoindian subsistence strategy centered on the pursuit of big-game. This picture, however, exaggerates the reliance of western Paleoindian groups on large game and appears to be of limited relevance to eastern Paleoindian life. The archaeological data from Virginia compiled by Dr. Ben McCary (1957) records numerous discoveries of fluted points, but no unambiguous association between extinct large game and fluted points (Boyd 1989:139). A similar situation occurs throughout the eastern United States. For this reason, many archaeologists now hold that eastern Paleoindians were generalized foragers (e.g., Grayson and Meltzer 2003; but see Fiedel and Haynes 2004).

Most large Paleoindian sites in the southeastern United States are quarry or quarry-related (Meltzer 1988:21), though multiple band aggregation sites also occur (McAvoy 1992:145). Recognizable sites most often result from long-term habitation or repeated use of the same location. It follows from the presence of primarily quarry or quarry-related sites that stone outcrops were regularly revisited. Though the full range of available lithic resources was used to manufacture fluted points (e.g., Phelps 1983), a number of studies have noted a focus on cryptocrystalline materials (e.g., chert, jasper, chalcedony) (Gardner 1974, 1989; Goodyear 1979). The recovery of cryptocrystalline materials at locations far removed from quarries indicates exchange, extensive group movement, or both characterized the Paleoindian era. In addition, the very limited differences between sites and within sites suggest that most people had access to all available resources, while the small size of most Paleoindian sites indicates group size generally was limited to extended families.

The evidence suggests wide-ranging mobility and a social order involving low-level inter- and intra-group exchange and limited, if any, status differences between and within groups. The combination of high mobility, the absence of domesticated crops, and an egalitarian ideology precludes construction of elaborate housing, extensive storage facilities, and accumulation of non-portable goods.

3.4 ARCHAIC PERIOD (8000–1200 BC)

The beginning of the Archaic period coincided with the start of the Holocene period around 8,000 BC. The Holocene is a geological period that began with the recession of the ice sheets that covered large portions of North America. The start of the Archaic is marked by a shift from a moist, cool climate to a warmer, dryer climate within the region, more similar to the temperate ecosystem of today. This warming trend was gradual and somewhat continuous throughout the first 5,000 years of the Archaic period. The shift in climate allowed for the development of diverse plant and animal communities, as currently found throughout the Middle Atlantic region. These changes in flora and fauna had a marked impact on the hunter-forager subsistence base of the Archaic period (Dent 1995:147, 164-5). The retreat of the ice sheets also caused the sea levels to rise, leading to the gradual formation of the Chesapeake Bay. Prior to the Archaic period the Chesapeake Bay was merely an extension of the Susquehanna River, emptying into the Atlantic Ocean several miles east of Virginia Beach, Virginia.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

As with the earlier Paleoindian period, our understanding of the cultural chronology of the Archaic is based primarily upon lithic artifacts: chipped-stone tools and the debris associated with their manufacture. More “biodegradable” forms of material culture have simply not survived in the region’s archaeological record and the items recovered are biased towards lithic materials (Geier 1990:82-83). The basic chronology of Archaic projectile points for the Mid-Atlantic region and the southeastern United States closely follows the sequence outlined by Joffre Coe (1964) for the North Carolina Piedmont, with regional variants. Coe’s chronology has been modified over the past 40 years, but the basic typology remains intact (Broyles 1971; Dent 1995; Hranicky 2003; Justice 1995; Ward and Davis 1999).

3.4.1 Early Archaic (8000–6500 BC)

Corner- and side-notched points with serrated blades predominate at the beginning of the Early Archaic period, reflecting innovation in hafting technology and, possibly, the invention of the atlatl. Notched point forms include Palmer and Kirk Corner-Notched and, in localized areas, various side-notched types. Around 7000 BC, a variety of bifurcate base projectile point forms appeared in the Middle Atlantic region. In eastern Virginia, LeCroy points constitute the majority of bifurcate forms (Dent 1995; Justice 1995). Despite the shift in point form over time some researchers portray the Early Archaic as a continuation of the Paleoindian period, characterized by reliance on cryptocrystalline lithic material and similar settlement and subsistence patterns (Gardner 1989).

3.4.2 Middle Archaic (6500–3000 BC)

The appearance of stemmed projectile points and a shift towards more expedient use of stone marks the beginning of the Middle Archaic across much of the Atlantic Slope and Southeast (Amick and Carr 1996:43-45; Justice 1995). In this area of Virginia, the most common Middle Archaic projectile point types are (from oldest to most recent) LeCroy, Stanly, Morrow Mountain, and Guilford, followed by the side-notched Halifax type sometime after 3500 BC. This latter type is generally one of the most abundant found in upland interior settings; however, it is possible that many riverine sites of the period are hidden under alluvial sediment. Informal modified flakes to some extent replaced formal unifacial tools, and local materials constitute a greater percentage of Middle Archaic assemblages than had been true of earlier time periods. Sites occur throughout the landscape area, including beneath the now-inundated Chesapeake Bay (Blanton 1996; Dent 1995:173-178).

An analysis of components from relevant central Piedmont settings (Klein and Klatka 1991) indicates only slightly higher use of interior uplands over riverine settings during the Middle Archaic period and, within riverine settings such as the present study area, there is a fully equal use of both alluvial landforms (floodplains/low terraces) and upland landforms/bluffs adjacent to the rivers (Klein and Klatka 1991:155). However, a repetition of this pattern in the study area would be dependent on geomorphological conditions: i.e., artifacts indicating the entire span of the Middle Archaic could be present on all landforms, unless the alluvial bottoms are restricted to sediments of too recent an age to contain deposits of such antiquity. Where sediments are too young, however, evidence of Middle Archaic presence should be concentrated on old, stable landforms lying as close as possible to the river and its small tributary.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

3.4.3 Late Archaic (3000–1200 BC)

Stemmed and notched knife and spear point forms, including various large, broad-bladed stemmed knives and projectile points (e.g., Savannah River, Susquehanna, Perkiomen points), rank among the most distinctive and securely dated Late Archaic point forms (Coe 1964; Dent 1995; Justice 1995; Ritchie 1971). Marked increases in population, and, in some areas, decreased mobility appear to characterize the Late Archaic throughout eastern North America. Locally, the increase in the number of Halifax and Savannah River components and sites relative to the preceding periods suggests population rose in Virginia between about 3500 BC and ca. 1200 BC.

Mouer (1991a:262) believes it likely that “at least intensive harvesting of wild seeds,” if not the beginnings of domestication, characterized Transitional through Early Woodland times (ca. 2000–500 BC) in the Chesapeake Bay region, as it did in the Midwest. The process, however, did not proceed at an even rate across the Eastern Woodlands or the Middle Atlantic Region (Stewart 1995:184-5). Yarnell (1976:268), for example, states that sunflower, sump weed, and possibly goosefoot may have been cultivated as early as 2000 BC. In the lower Little Tennessee River Valley, the remains of squash have been found in Late Archaic Savannah River contexts (ca. 2400 BC), with both squash and gourd recovered from Iddins period contexts of slightly more recent date (Chapman and Shea 1981:70). Experiments with domestication in the Mid-Continent indicate the possibility, even the likelihood, that the inhabitants of the Middle Atlantic cultivated small grains and other plants (Hodges 1991:228-230; Mouer 1991b:259- 263). “Scant” evidence for early cultivation appears in the archaeological record from Virginia, however (Mouer 1991a:259; Gallivan and McKnight 2006).

Soapstone bowls are a well-known feature of Late Archaic exchange systems (McLearn 1991:107-8). In addition, Stewart (1989:52) argues for broad-based exchange of “artifacts made from jasper, argillite, rhyolite, ironstone, soapstone, Midwestern lithics, obsidian, marine shell and copper” throughout the Middle Atlantic region during the Late Archaic. Thus, Late Archaic society clearly differed from that of earlier times. The production and wide-spread exchange of utilitarian and ritually important, labor-intensive goods does not fit the expected archaeological signature of highly egalitarian foragers. Rather, a social order exhibiting some sort of status differences among individuals or groups (Mouer 1991a:265) and somewhat restricted group movement (Stewart 1989:57) likely existed. Still, sites dating to the Late Archaic occur frequently throughout Virginia and the Middle Atlantic region. Late Archaic sites occur in greater numbers and in a wider range of environments than sites associated with the Early and Middle Archaic periods (Klein and Klatka 1991).

3.5 WOODLAND PERIOD (1200 BC–AD 1606)

Increasing use of ceramic technology, a growing dependence upon horticulture, and a shift toward greater sedentism all characterize the Woodland period. Most researchers divide the Woodland period into three sub-periods (Early Woodland, Middle Woodland, and Late Woodland), based primarily on stylistic and technological changes observed in ceramic wares and projectile points, as well as shifts in settlement patterning (e.g., Gardner 1982). Not all researchers agree with this tripartite subdivision, however (e.g., Custer 1989).



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

The onset of the Woodland period traditionally correlates with the appearance of ceramics (Willey and Phillips 1958:118). Early theorists linked ceramics with agriculture, though few continue to support this position (cf. reviews in Egloff 1991; Hodges 1991). Rather, the evolution of subsistence and technological systems (e.g., Gardner 1982) and various aspects of pan-Eastern interaction (e.g., Egloff 1991; Klein 1997) currently are believed to underlie the evolution of ceramic containers. Popes Creek Net-impressed ceramics appear after roughly 500 B.C., marking the beginning of the Middle Woodland I period (500 BC–AD 200) (Blanton 1992:72-3; Egloff and Potter 1982:99). However, cord-marked ceramics and stemmed points continued in use for some time after AD 500 (McLearen 1992:44-5). By the Late Woodland period (AD 900-1600), the use of domesticated plants had assumed a role of major importance in the prehistoric subsistence system. The adoption of agriculture represented a major change in the prehistoric subsistence economy and settlement patterns. With the development of a more sedentary settlement-subistence system culminating in the Late Woodland Period, permanent habitation sites gradually replaced base camps, which were characteristic of earlier foragers and hunter-gatherers.

3.5.1 Early Woodland (1200–300 BC)

The steatite-tempered Marcey Creek type and variants containing other mineral inclusions appear to date between 1200 and 800 BC (Egloff 1991:244-5). Manson (1947) unearthed flat bottomed, plain sherds and cord-marked sherds with conoidal bases, both of which included soapstone-temper, in the uppermost of two distinct strata at the Marcey Creek Site. The lowermost level contained narrow variants of Savannah River points, termed Holmes Points by Gardner (1986), and soapstone bowls, suggesting that soapstone-tempered sherds post-date bowls of soapstone (but see Sassaman 1999). Earlier Slattery (1946) had identified similar sherds at a site on Seldon Island, along the Potomac River to the northeast of Leesburg, along with sand-and-grit tempered sherds. Though friable sand-and-grit-tempered Accokeek Creek and Elk Island ceramics appear subsequent to Marcey Creek, associated C-14 on stratified sites, dates range from 1100 through 500 BC. Klein and Stevens (1996) cite regional data to support the proposition that, while the thickness, amount of temper, and size of temper in quartz/sand tempered, cord-marked ceramics shifted over time, similar pots continued in use into Middle Woodland times.

Radiocarbon dates recommend placement of the Calvert and Fishtail points in the Early Woodland (Gleach 1985). Ovoid to lozenge-shaped points, classified as Teardrop Points, have been dated to 940-50 BC. in the Northeast (Mounier and Martin 1994). Nevertheless, similar points have been recovered from Middle Archaic through Middle Woodland I contexts in North Carolina and Virginia (Kirchen 2001:53-69). The Potts Corner-Notched point type, the Vernon point type, and the Claggett point type have been dated only through stratigraphic context or association with early ceramics (Gleach 1985; Stephenson 1963). Similarly, a variety of small stemmed and side-notched forms of assumed association with the Early Woodland period lack definitive temporal assignment (Dent 1995:227-228).

Small bifaces and expedient tools such as drills, perforators, scrapers, and utilized flakes regularly appear in Early Woodland assemblages. Other lithic artifacts reported on Early Woodland sites in the Chesapeake region include bipolar flakes, hammerstones, net sinkers, mortars, and pestles (McLearen 1991). Also noted on sites in the region are tools of bone, and projectile points manufactured from antler, bone, turkey spurs, and shark's teeth (Waselkov 1982).



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

The increased number of sites dating to the Early Woodland, coupled with the recognition of structures, features, and activity areas at some sites, suggests rising population size in the Chesapeake region (e.g., Mouer 1991b:38-9; Stewart 1995:183). In contrast, noting that the addition of pottery to stone adds temporally diagnostic artifacts to the archaeological record, Fiedel (2001:106–7) observes that more sites are expected to appear in the archaeological record during Woodland times. Furthermore, the various Broadspears, dating to the Terminal Archaic (ca. 2000–1000 BC), may represent a curated technology (Barber and Tolley 1984), while replication experiments suggest stemmed bifaces similar to Early Woodland types rank among the easiest forms to produce using quartz (Bourdeau 1981). Therefore, a shift from a curated, less commonly discarded biface form, to points easily produced from a ubiquitous material accompanied the appearance of ceramics. Thus, the absence of a dramatic swell in the number of sites, coupled with decreased representation of diagnostic point forms, indicates a demographic trough or at best a flat demographic curve characterized the period.

3.5.2 Middle Woodland (300 BC–AD 1000)

Popes Creek net-impressed ceramics appear after roughly 500 BC, marking the beginning of the Middle Woodland I period (500 BC–AD 200) (Blanton 1992:72-3; Egloff and Potter 1982:99). Cord-marked ceramics and stemmed points, however, continued in use for some time after A.D. 500 (McLearen 1992:44-5), for example, lumps the period between 3000 BC and AD 1000 under the rubric Woodland I based on the similarity in adaptation and the presence of considerable variation in the form of contemporaneous stemmed and notched points.

Net-impressed surface treatments occur on a variety of ceramic types manufactured during Middle Woodland times. Pope's Creek ceramics first appear after 500 BC, with the start of the Middle Woodland (Blanton 1992:72-3; Egloff and Potter 1982:99). Early Woodland cord-marked ceramics and stemmed projectile points are found in Middle Woodland contexts, suggesting a continuation of Early Woodland technologies (McLearen 1992:44-5). The Prince George and Varina types appear to represent a continuum of development in the technology used to produce Popes Creek sherds, rather than dramatically different types (Mouer et al. 1986). After AD 200, shell-tempered, net-impressed, cord-marked, and plain pottery classified as the Mockley type becomes predominant in the outer Coastal Plain of Virginia and Maryland, though generally similar sherds tempered with grit continued in production as well (Johnson 2001:100).

The appearance of assemblages containing significant amounts of durable ceramics after 500 BC indicates a shift in the organization of production occurred during the Middle Woodland periods (Brown 1986, 1989). In addition to the advantages of ceramic vessels as cooking pots, ceramic production contrasts with the manufacture of baskets and wooden bowls in its embrace of economies of scale. Rather than a start-and-stop process that fits well into odd bits of time, ceramic production required greater scheduling and continued attention over an extended period of time. Shifts in the scheduling of work, therefore, accompanied the transition from Early to Middle Woodland times.

Broad-spectrum hunting-fishing-gathering continued to characterize the region as a whole throughout the Middle Woodland period. Shellfish, anadromous and resident fishes, deer, waterfowl, and turkey ranked



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

high among the important fauna in the Middle Woodland diet. Various nuts, amaranth, and chenopod seeds also appear to be important resources during this period. After 300 BC, large shell middens containing dense concentrations of artifacts become increasingly common, indicating repeated use of at least one type of site. Middens and the presence of houses at a number of sites indicate longer stays, though populations remained far from sedentary (Gallivan 2003). People continued to reside for much of the year in relatively small settlements, and interior storage features rarely occur on Middle Woodland sites (Gallivan 2003:75-98).

3.5.3 Late Woodland (AD 1000–1606)

Intensified use of cultivated plants, particularly maize, beans, and squash, distinguished the Late Woodland adaptation from that of earlier periods. European accounts describe a heavy reliance on slash-and-burn agricultural methods. In addition to cultigens and shellfish, Late Woodland peoples throughout the region continued to rely on various mammals, fish, and birds for sustenance (Dent 1995:251). Perhaps as a consequence of the greater importance of cultigens in the diet, access to expanses of arable land ranks among the most important factors influencing site selection (Dent 1995; Potter 1993).

Heightened diversity characterizes ceramic assemblages recovered from Late Woodland sites in Virginia (Gallivan 2003:131-154). Ware include crushed-rock-tempered, fabric-and cord-marked ware which appear similar to that of the local late Middle Woodland pottery, as well as a sand-tempered, cord-marked pottery sequence that, in general appearance, is similar to the Vincent-Clements continuum of the North Carolina Piedmont. Small, triangular arrow points, generally believed to reflect the widespread use of the bow-and arrow, form the overwhelming majority of Late Woodland projectile points. Triangular points include the Levanna, Madison, Roanoke, and Clarksville types, which vary in size and base form. Point size may also decrease over time (Coe 1964; Potter 1993; Ritchie 1971).

Shell beads and copper beads became important ornaments and symbols during the Late Woodland period, primarily in the last few centuries prior to the arrival of European colonists. Powhatan's Mantle, a deerskin cloak decorated with thousands of small marginella beads sewn into various patterns, reflects the use of shell beads as symbols of identity and status. Pendants and gorgets made of shell were also common. Of note, five engraved shell masks, decorated with a traditional Southeastern "forked/weeping eye" motif were found in a seventeenth-century burial on the floodplain of the Potomac River in Stafford County. Three of the five masks exhibit similarities to masks recovered from sites in the Southeastern U.S. (Smith and Smith 1989), possibly an indication of long-distance trade. Bone also was used to manufacture beads, as well as utilitarian items such as pins, fishhooks, and points.

In addition to palisaded villages, Native American settlements included nucleated villages lacking palisades, dispersed hamlets, and temporary camps. Recent work by Potter (1993), Hodges and Hodges (1994), and Mouer et al. (1992) suggest that dispersed villages were common throughout Virginia. The difficulty in identifying them archaeologically may have contributed to the low number of archaeologically identified Contact-era settlements recorded by the Jamestown colonist John Smith. Housing varied throughout this region: some sites show evidence of longhouses located adjacent to the palisade, while



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

elsewhere, short, oval structures have been unearthed (Dent 1995; Gallivan 2003; Hodges and Hodges 1994; Mouer et al. 1992; Potter 1993; Stephenson 1963).

3.6 SETTLEMENT TO SOCIETY (1607–1750)

The sole encounter between the Jamestown colonists and the inhabitants of the Virginia Piedmont occurred near the falls of the Rappahannock River. John Smith's query about the "worlds he did know" elicited a description of the cultural landscape from a captive Mannahoac. The Mannahoac, Amorolek, "replied he knew no more but that which was under the sky that covered him, which were the Powhatans, with the Monacans and Massawomeks higher up in the mountains. Then we asked him what was beyond the mountains; he answered the sun, but of anything else he knew nothing because the woods were not burnt" (Haile 1998:272). While perhaps an inaccurate representation of Amorolek's geographic knowledge, the encounter represents the only documented reference to northwestern Virginia in the Jamestown Narratives.

At the time of European contact in the New World, present day Fairfax County was occupied by several Native American tribes. One of the dominant tribes were the Dogue (or "Doeg") Indians, whose primary village, Taxuent, was located on the Occoquan River south of the study area vicinity. The Dogue were part of the Algonquian Federation (Brown 1994). John Smith encountered the Dogue and feasted with them on Dogue Island, at the convergence of the Potomac and Occoquan Rivers. Smith estimated the size of the tribe at about 135 to 170 people. The Dogue proved to be valuable friends; Smith was able to trade for corn to feed the colonists and the tribe showed the colonists how to hunt and fish as well as teaching them their farming methods (Brown 1994; Waltmyer 1995).

English exploration of the Piedmont's interior began during the seventeenth century, but the expansion of English settlement beyond the falls of the River was an eighteenth-century phenomenon. The establishment of the headright system and the development of a highly marketable strain of tobacco fueled the spread of settlement; Virginia colonists sought new acreage for tobacco cultivation. The inroads of this expansion increasingly impinged on the native population's territory, with the result that in March of 1622 the Indians of the Powhatan Chiefdom attempted to drive the colonists from their lands. In the wake of that uprising, repeated retaliatory raids were made on Indian villages, during which Native American's homes and food supplies were destroyed. Afterward, Virginia planters reoccupied many of the homesteads they had established in outlying areas and eventually they ventured into new territory where they placed still more land under cultivation (McCartney 1985:53-55).

With expansion of the colony and an increase in new settlers, settlement moved up the Potomac River. This movement occurred first on the Maryland side. Then, with the defeat of the Dogue Indians in 1644, present-day Fairfax County, including the City of Fairfax, was opened to European settlement. Some of the earliest land patents along the Occoquan River were issued in the 1650s. As the colonists began moving into the areas of present-day Fairfax and Prince William counties, tensions grew again between the native Dogue and the new European settlers. In 1676, two more conflicts, the Susquehannock War and Bacon's Rebellion, caused settlers to retreat south towards Aquia Creek in present-day Stafford County. Soon after, the English established forts along the upper Potomac River and settlers continued to



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

move northward and westward (Sprouse 1975). By 1700, diseases had further decimated the Dogue and they began to move westward, leaving their villages behind (Brown 1994; Waltmyer 1995).

Early settlement of Virginia spread first along the coastal region and up major rivers. The pace of county formation provides one index of the expansion of European society beyond the Tidewater. Northumberland County, formed in 1648, originally encompassed the Rappahannock and the Potomac Valleys to indeterminate northern and western boundaries. Political subdivisions followed fluvial boundaries, as the Potomac counties of Westmoreland (1653) and Stafford (1664) and the Rappahannock counties of Rappahannock (1656 and after 1692, Richmond) and King George (1721) were created.

In 1685, a Native American trading post was located at what is today the intersection of Little River Turnpike (Route 236), Annandale Road, and Columbia Pike (Callahan 2012a). Along with 22,000 additional acres, Colonel William H. Fitzhugh acquired the trading post. The total Fitzhugh property, nearly 24,000 acres, was one of the largest tracts of land granted in Northern Virginia. Fitzhugh transformed this massive tract of wilderness into a prosperous tobacco plantation that would become known as Ravensworth. This parcel included what would later become the town of Annandale. Though Fitzhugh owned the Ravensworth property, he did not reside on the land. Instead, Fitzhugh leased portions of the property to others to cultivate. Some of those who leased property were French Huguenots who fled religious persecution by emigrating to the New World. In 1701, Colonel Fitzhugh died at his home in King George County and the vast Ravensworth property was left to his two eldest sons. The southern portion of the property, including all of the land that is today Annandale, was left to William Fitzhugh, Jr. (Capone 1985; Callahan 2012b).

Demand for a new county increased as the population of Stafford spread. Hardship for the new residents escalated after 1722 due to their distance from the Stafford County courthouse, resulting in a bill dividing Stafford County into two parts. After the first bill failed in 1726, a second bill, which passed on July 9, 1730, formed Prince William County. This act specified no northern or western limits for the county; therefore, its original territory included the current areas of Fairfax, Arlington, Alexandria, Loudoun, and Fauquier counties, and, in some interpretations, the entirety of the Rappahannock and Shenandoah River valleys. In 1742, Fairfax County was carved from Prince William, and by 1757, two years before the American phase of the conflict between England and France ended, population growth in the northern Piedmont led to the creation of Loudoun County from Fairfax County.

John Smith's *Virginia / discovered and discribed by Captayn John Smith, 1606* (1624) depicts the general vicinity of what is now Fairfax County (Figure 3). The map appears generally accurate as far upstream as the present location of Harpers Ferry and the location of the Dogue's primary village of Tauxenent; however, the map lacks detail and Smith depicted no settlement within the project area vicinity. A map produced around 1747, does provide some measure of detail for the project area (Figure 4). Fairfax County is named as such, and Dogue Creek, southeast of the project area, is also illustrated. In addition, the Potomac Path, a Native American trail that became the forerunner to U.S. Route 1, is also present.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

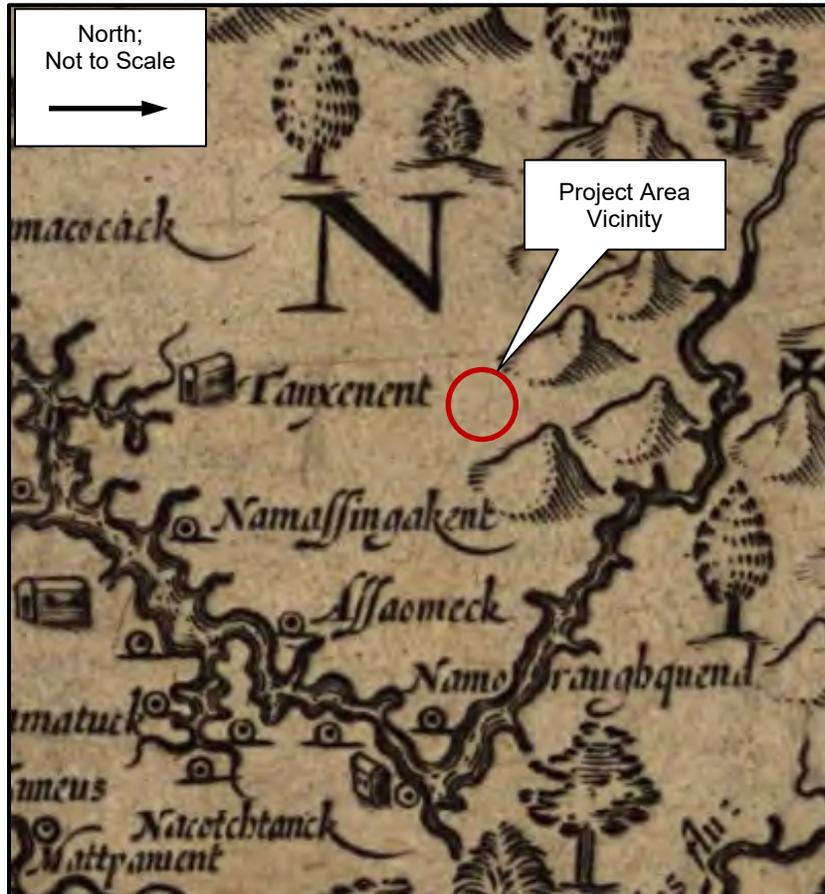


Figure 3 Detail of Virginia / discovered and discribed by Captayn John Smith, 1606 ; graven by William Hole. Depicting the Project Area Vicinity (Smith 1624; Library of Congress Geography and Map Collection).



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

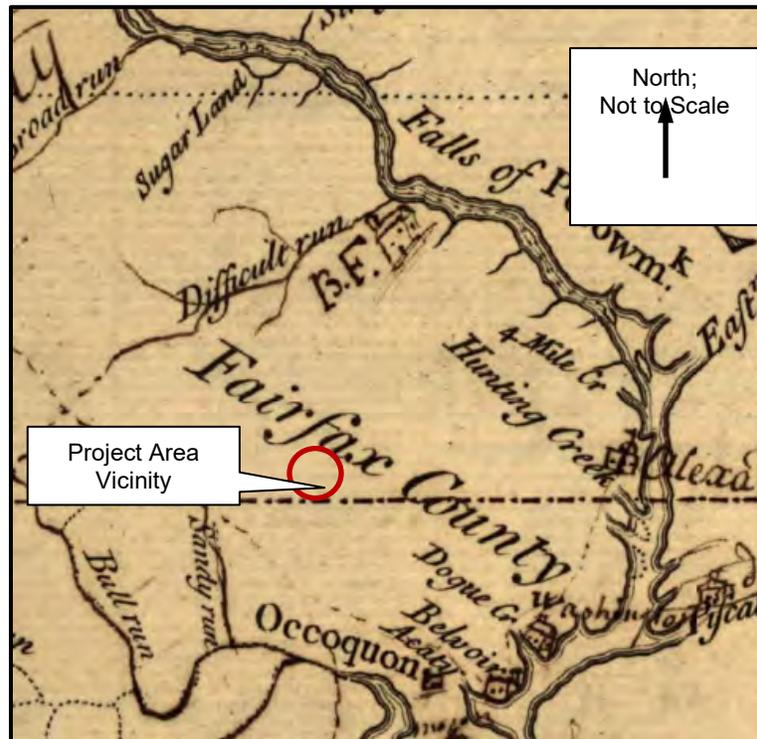


Figure 4 Detail of A survey of the northern neck of Virginia, being the lands belonging to the Rt. Honourable Thomas Lord Fairfax Baron Cameron, bounded by & within the Bay of Chesapoyocke and between the rivers Rappahannock and Potowmack: With the courses of the rivers Rappahannock and Potowmack, in Virginia, as surveyed according to order in the years 1736 & 1737. Depicting the Project Area Vicinity (Warner 1747?; Library of Congress Geography and Map Division).

3.7 COLONY TO NATION (1751–1789)

In part, the soil-depleting nature of tobacco production fueled the geographic expansion of the English colony of Virginia (Kulikoff 1986:46-8). Though tobacco continued in importance in Virginia throughout early eighteenth century (McPherson 1988:101), the post-1750 stagnation in salaries and export records indicate a decline in the importance of tobacco after the middle of the eighteenth century (Seiner 1985:410-12). Between 1740 and 1764 "prices for tobacco on the world market rose far less than for wheat and flour because the traditional grain suppliers...were unable to meet the sharply increasing demands for foodstuffs in the West Indies and southern Europe" (Seiner 1985:412). In addition, grain sales afforded planters a degree of control over exchange rates (Seiner 1985:414-15). The farmers in the Virginia Piedmont turned first to corn, then to wheat as preeminent cash crops (Keller 2000:21; Seiner 1985:412-13). In 1756, during this initial period of transition from a tobacco-based economy, the total population of Fairfax County was 7628 persons, 3345 (44 percent) of whom lived north and west of Difficult Run, close to the Potomac River (Netherton et al. 1992:32-33, Fesler and McCartney 1993:13).



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

On the eve of the Revolutionary War, Fairfax County saw a major loss of land. In 1757, Loudoun County was formed from the western portion of Fairfax, reducing Fairfax County by some 60 percent (Fairfax County Economic Development Authority n.d.). The land around the study area consisted of several large tracts held by farmers and investors (Turkawski et al. 2012). While no battles were fought in Fairfax County during the American Revolution, the county did supply men to fight the British (McAllister 1913).

Following the American Revolution, William Fitzhugh was still cultivating the massive Ravensworth property via land agents. While he had sold some portions of the property to raise funds before 1776, it was not until after the war that the region which would become modern Annandale, inhabited primarily by Scottish settlers, was carved from the overall property (Callahan 2012a).

3.8 EARLY NATIONAL PERIOD (1790–1829)

During the late eighteenth and early nineteenth centuries, Fairfax and the surrounding counties underwent a radical transition from tobacco to a new diversified grain-based economy that would characterize the region through the nineteenth century and well into the twentieth. By the time of the American Revolution all arable land in the Tidewater and Piedmont regions of Virginia had been planted in tobacco at least once, and most areas were experiencing the effects of severe soil depletion. Between 1790 and 1820 as many as 250,000 Virginians moved from the older settled parts of the state to the recently opened southwest frontier, taking approximately 150,000 black slaves with them. The virtual collapse of the tobacco economy and the concomitant out-migration of significant numbers of people had a revolutionary effect on the social and economic character of the Piedmont and Tidewater regions. Large plantations that had relied on slave labor were increasingly subdivided into smaller-scale farmsteads that grew corn and wheat rather than tobacco (Kulikoff 1986:422, 429; Evans 1988).

Despite the obvious benefits of the transition from tobacco to grain crops, the farming methods of the late eighteenth and early nineteenth centuries continued to have a deleterious effect on exhausted soils. Under the traditional three-crop rotation system, a field first would be planted in corn, the following year in wheat, and then left unplowed the third year to provide grazing for cattle and hogs. Recognizing the need for improved agricultural practices, Loudoun County farmer John A. Binns spearheaded the agricultural reform movement in Virginia. His 1803 *Treatise on Practical Farming*, which won the admiration of President Thomas Jefferson, outlined a formula for improving crop yields that would come to be known as the “Loudoun System.” In his widely read book, Binns recommended deep plowing, the use of gypsum to restore soil productivity, and revising the old crop rotation pattern to include a third year of clover (Poland 1976:84-88).

But ample harvests were of little use to the farmers of the northern Virginia counties if agricultural produce could not be transported cheaply and efficiently to the region’s major transshipment centers, principally the port of Alexandria. As a result, Northern Virginia experienced a boom in turnpike construction in the early years of the nineteenth century, with the goal of linking Virginia’s Piedmont “breadbasket” with hungry eastern and international urban markets.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

Fairfax City, located southwest of the current study area, had its roots in this era, having been originally established as the Town of Providence in 1805 by the Virginia General Assembly. The Virginia General Assembly had, in 1798, established the crossroads at Earp's Ordinary as the site for the relocation of the Fairfax County Court. The court had to be moved from the town of Alexandria because Alexandria would become included within the new Federal Capital. A small community formed from this development. The local population referred to Providence as Fairfax Court House until 1875 when the name Providence was officially changed to Fairfax (VDHR 1986, Section 8).

Historic maps from this period show little detail in the immediate vicinity of the project area. A map produced by James Madison in 1818 (Figure 5) does show the location of Fairfax, noted as "CoH," as well as Accotinck (Accotink) Creek. However, no evidence of occupation is shown within the project area vicinity. Herman Böye's 1859 map (Figure 6) depicts much the same landscape within Fairfax County as shown in the earlier Madison map. However, the later map shows roadways in the vicinity of the current project area as well as the locations of mills along Accotink Creek.

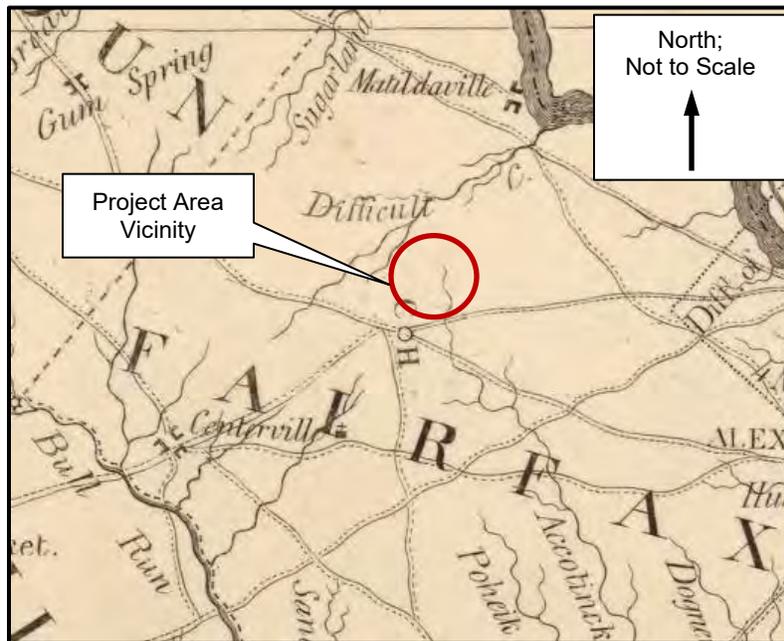


Figure 5 Detail of View of Richmond, Metropolis of Virginia (upper right sheet) Depicting the Project Area Vicinity (Madison 1818; David Rumsey Map Collection).



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

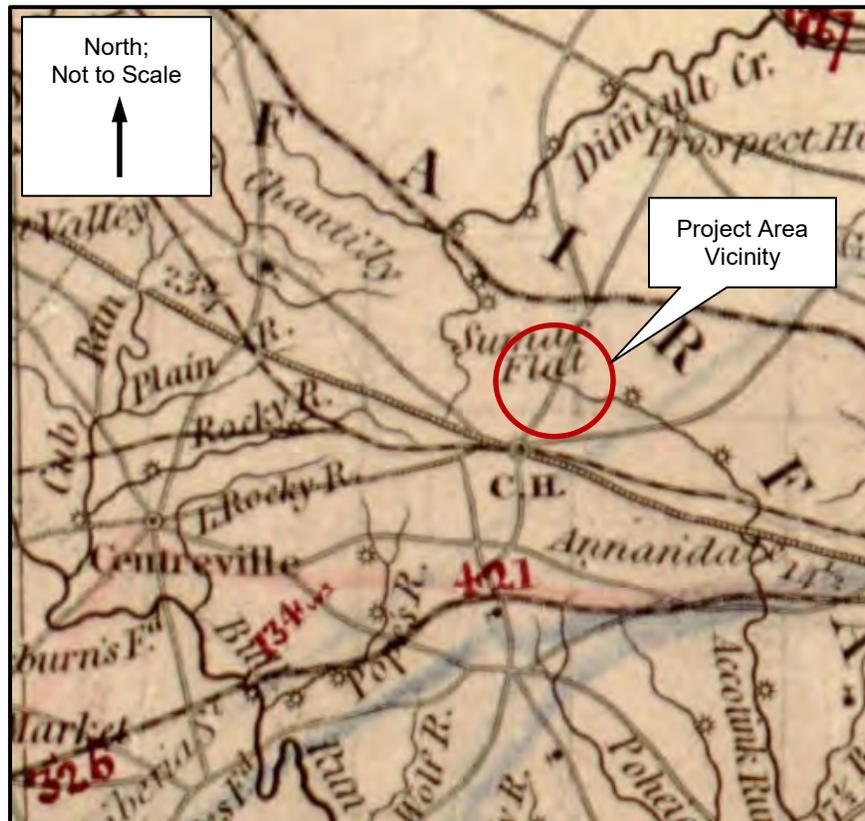


Figure 6 Detail of A map of the state of Virginia: reduced from the nine sheet map of the state in conformity to law / by Herman Böye, 1828. Depicting the Project Area Vicinity (Böye 1859; David Rumsey Map Collection).

3.9 ANTEBELLUM PERIOD (1830–1860)

By the mid-nineteenth century railroad developers were building rail lines throughout much of northern Virginia. By the 1850s, the Manassas Gap Railroad joined the Orange and Alexandria line at what was now commonly called Manassas Junction. As with turnpikes earlier in the nineteenth century, the construction of rail lines would have a tremendous economic and social effect on the area, facilitating the export of farm produce (Hennessy 1989).

By the 1840s and 1850s, numerous farming families were departing Fairfax County and heading west. This departure had opened a considerable amount of land to outside purchase at low cost. With the advantage of new transportation routes and proximity to the growing markets of Alexandria, Georgetown, and Washington, this region proved attractive to northern farmers and recent immigrants. By the early 1850s, about 200 Northern families had moved to Fairfax and invested more than \$200,000 in land, which they set about improving with vigor and ingenuity that impressed their new Virginia neighbors. In 1850, roughly one in three adult white males in Fairfax hailed from the northern states or European countries. Most were farmers who took up moderately sized parcels, typically between 150 and 200 acres. These



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

newcomers, including many Pennsylvania and New Jersey Quakers, were inherently anti-slavery, though not aggressively so. By improving their farms with free white labor, they hoped to show Southerners that black slavery was not simply immoral, but also economically unsound (Netherton et al. 1978:251-59). This influx of newcomers provided an impetus for growth, and the region began to thrive. Commerce and urban growth increased with the shift away from tobacco and the emphasis on grains, vegetables, and cattle (Louis Berger & Associates, Inc. [Berger] 1991).

In Annandale itself, settlers raised pigs and cultivated corn and wheat, both for their own consumption and as feed for their livestock. In addition to land for cultivation, Annandale boasted woodland featuring species such as oak, black, cherry, poplar, chestnut, hickory, and walnut. A number of Annandale farmers also pursued crafts such as woodworking, producing furniture and other items during the winter months when crops did not require tending. In the 1820s a steam driven sawmill was constructed by William Garges on the Little River, east of the project area. Other commercial structures began to appear in Annandale in the pre-Civil War period, including a smithy, an inn, and a plow and wagon factory, all owned by the Garges family. Other commercial enterprises also arose throughout the Annandale community (Callahan 2012a).

During this time, Providence became a center for commerce and trade as well as being the seat of the local government of Fairfax County. Milling establishments became more prominent with the shift to a grain-based economy. The Town of Providence was prospering. In an 1835 issue of the *Gazetteer of Virginia and the District of Columbia*, Joseph Martin described the community of Providence as containing “ordinary county buildings, 50 dwelling houses, for the most part frame buildings, 3 mercantile stores, 4 taverns, and 1 common school. The mechanics are boot and shoe-makers, saddlers, blacksmiths, tailors, etc. Population 200 persons; of whome 4 are attorneys and 2 physicians” (Martin 1835; VDHR 1986).

3.10 CIVIL WAR (1861–1865)

By the 1860s, the issues of slavery and states’ rights had precipitated armed conflict. The land between Alexandria and Manassas “...had been destroyed as effectively as possible and...” was now “...a long deep cut filled in with trees and earth” (U.S. Department of War 1881:720).

Fairfax County Courthouse was headquarters for Confederate troops in 1861 and for Union troops from 1862-1865 (VDHR 1986). Tysons Corner, northeast of the study area, was an avenue of troop movement throughout the Civil War. Both Confederate and Union troops crossed through Tysons Corner, often depicted on maps of the era as “Peach Grove” or “Peach Grove P.O.” in reference to the post office there (Tysons Partnership 2015). Despite these troop movements, no Civil War battles are known to have taken place in the immediate vicinity of the study area. However, 30 acres within Tysons Corner were cleared to make way for a Union signal tower and stockade (Tysons Partnership 2015).

The Battle of Chantilly/Battle of Ox Hill (VDHR #029-0162) was fought near Centreville in 1862. The battle occurred several miles southwest of the study area. On September 1, 1862, Union forces engaged Confederate forces on Ox Hill during a severe thunderstorm. The weather caused a shortage of dry ammunition and both sides turned to fighting with bayonets and musket clubs. The battle lasted only two



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

hours; however, some 2100 soldiers lost their lives. The battle ended in a draw, but the Union lost more men (1300) than did the Confederates (800), including Brigadier General Isaac I. Stevens and Major General Philip Kearny (Civil War Trust 2014; Fairfax County Virginia 2016; Salmon 2001).

Civil War era maps show Fairfax County in relative detail. A map of Fairfax County from the 1860s depicts no evidence of occupation within the project area, though farmsteads are present in the general vicinity and major roads are shown. Earthworks are depicted to the west of the project area (Figure 7). Michler's 1864 map of Fairfax County depicts the project area as open, unoccupied land during this period (Figure 8).

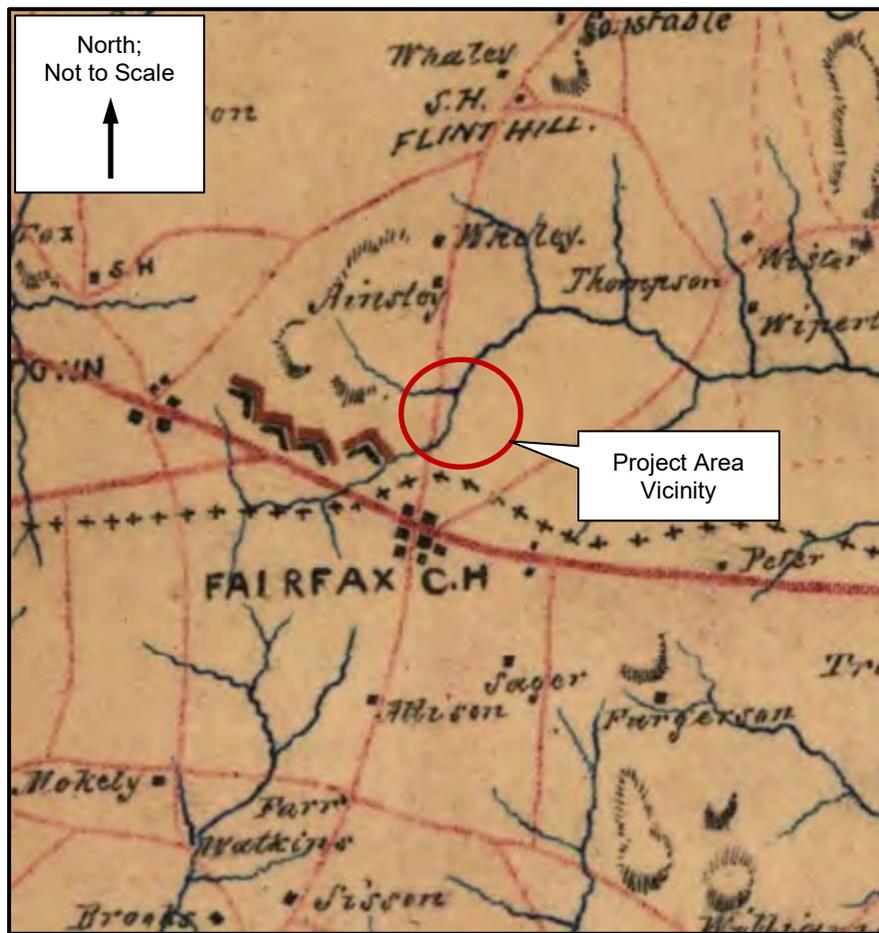


Figure 7 Detail of [A map of Fairfax County, and parts of Loudoun and Prince William Counties, Va., and the District of Columbia]. Depicting the Project Area Vicinity (Hoffmann and Brown n.d.; Library of Congress Geography and Map Division).



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

1867 and dedicated to helping farmers learn new agricultural methods. Though Virginians were initially slow to join, by 1876 the organization claimed 18,000 members in Virginia in 685 local chapters. Though the Grange had lost most of its power by the 1890s, it was replaced by similar organizations, including the Farmers' Assembly and Farmers' Alliance, and the annual Farmers' Institutes (Manarin and Dowdey 1984:341-44).

Eventually, the population of Fairfax County Courthouse began growing at a steady rate, paralleled by local development. This bolstered population and economy was the impetus for the construction of the electric railway line to Fairfax in 1904 from its previous terminus in Vienna, Virginia. With a trolley rail link between Washington, D.C. to Fairfax, economic and developmental growth occurred exponentially (VDHR 1986). The first two decades of the twentieth century saw Fairfax County's economy grow. The emergence of Fairfax County as a leading dairy producer spurred on the construction of better roads and rail services, enhancing the business connection with Alexandria and Washington D.C. With better transportation came more residents and businesses to the region (Netherton 1992).

3.12 WORLD WAR I AND WORLD WAR II (1917–1945)

With the outbreak of World War I, Fairfax County residents supported the War effort in any way possible. Farmers and 22 county branches of the American Red Cross lent much time and support to the War effort. In turn, the government helped farmers with the use of experimental techniques, boosting the agricultural market. The government also established Camp A. A. Humphreys (later named Fort Belvoir) in Fairfax, creating more jobs and boosting the economy (Reed 1992).

The faltering postwar economy caused prices to fall, and farmers could no longer afford to produce their crops. To make matters worse, the government shifted their focus from the agricultural economy to the growth of urban centers. While farmers were still suffering hardships related to the Great Depression, the region was experiencing an overwhelming influx of new residents. By 1940, rising land values, a result of urban and suburban growth, forced many farmers to sell their land and move elsewhere (Berger 1991). Furthermore, with the onset of World War II and the expansion of the federal bureaucracy, the county's population continued to grow, and property prices continued to rise.

Historic topographic maps from the period depict the project area and its environs in detail. Topographic maps from 1890 to 1897 (not shown) provide no evidence of occupation in the project area. The area is instead shown only as open land on either side of Accotink Creek. By 1915, residences appear in the general vicinity of the project area, though the study area itself remained apparently unoccupied. This trend continued into the mid-twentieth century.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CULTURAL CONTEXT

3.13 THE NEW DOMINION (1946–PRESENT)

By the end of World War II, Fairfax had become one of the major suburbs of Washington D.C. With disappearing farmsteads being replaced by new subdivisions, commercial farming and urban lifestyles were becoming more popular. During the 1940s and 1950s, the population of Fairfax County more than doubled from 40,900 to 98,500 and in the 1960s the population grew to almost 500,000 residents (Netherton and Netherton 1992). The City of Fairfax thrived as urban and suburban life and work associated with the expanding federal government increased in the region.

In 1958, the Town of Fairfax (present-day City of Fairfax) purchased and donated 150 acres to the University of Virginia to help establish the Northern Virginia branch of the University in a more permanent status. George Mason College (as it was named then) was expanded into a four-year degree granting institution. The General Assembly passed legislation in 1972 to establish the present-day George Mason University, southwest of the project area (George Mason University 2005).

Historic topographic maps from the period continue to depict the project area as uninhabited land (Figure 13). In 1966, the Mosby Woods and Country Club Hills subdivisions are shown on either side of the project area.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

RESEARCH DESIGN

4.0 RESEARCH DESIGN

4.1 OBJECTIVES

The Phase I cultural resources survey was designed to locate and identify all archaeological resources within the project area. Stantec designed the survey to obtain sufficient information to make recommendations about the research potential of identified cultural resources based on each resource's potential eligibility for listing on the NRHP. A cultural resource is gauged to be significant if it meets at least one of four National Register criteria:

- A. Associated with significant events in the broad patterns of national history.
- B. Associated with the lives of persons significant in our past.
- C. Representative of a type, period, or method of construction, or the work of a master.
- D. Capable of yielding important information about the past.

Criterion D typically applies to archaeological sites. In order to be capable of yielding important information about the past, generally a site must possess artifacts, soil strata, structural remains, or other cultural features that make it possible to test historical hypotheses, corroborate and amplify currently available information, or reconstruct the sequence of the local archaeological record.

4.2 PREVIOUS INVESTIGATIONS

4.2.1 Archaeological Sites

No previously recorded archaeological sites are located within the GTS project area. Fifty-seven previously recorded archaeological sites are located within a 1-mile radius of the project area (Table 2; Figure 7). Of this total, 26 are prehistoric, 26 are historic, four are multi-component, and one has no recorded temporal affiliation. One site (44FX2474) has been destroyed, 10 sites are listed as not eligible for inclusion on the NRHP, and the remaining sites have not been formally evaluated for potential NRHP eligibility by the VDHR.

Table 2 Previously Identified Archaeological Sites within a 1-Mile Radius of the Study Area

Resource	Resource Type	Association	Reference	NRHP Status
44FX0019	No Type Recorded	Prehistoric Unknown	MacCord 1969	Not Evaluated
44FX0032	No Type Recorded	Archaic	WMCAR 1997; Fairfax Co. 1976	Not Evaluated



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

RESEARCH DESIGN

Resource	Resource Type	Association	Reference	NRHP Status
44FX0033	Temporary Camp	Paleoindian & Early to Middle Woodland	Fairfax Co. 1991, 1984, & 1976	Not Evaluated
44FX0034	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1976	Not Evaluated
44FX0038	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1977	Not Evaluated
44FX0039	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1977	Not Evaluated
44FX0040	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1977	Not Evaluated
44FX0254	Lithic Quarry	Prehistoric Unknown	Fairfax Co. 1980	Not Evaluated
44FX0226	Lithic Quarry	Prehistoric Unknown	Fairfax Co. 1980	Not Evaluated
44FX0967	Dam, Mill, Raceway	No Association Recorded	Fairfax Co. 1985	Not Evaluated
44FX1174	Cemetery	19 th c.	WMCAR 2004; Fairfax Co. 1987	Not Evaluated
44FX1271	Cemetery	Late 19 th c. to Mid-20 th c.	Fairfax Co. 1987	Not Evaluated
44FX1393	Cemetery	Historic Unknown	Fairfax Co. 1988	Not Evaluated
44FX1555	Single Dwelling	19 th c. to 20 th c.	Browning n.d.	Not Evaluated
44FX1728	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1990	Not Evaluated
44FX1729	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1990	Not Evaluated
44FX2008	No Type Recorded	Prehistoric Unknown	Fairfax Co. 1990	Not Evaluated
44FX2092	Camp; Cemetery	Historic Unknown	Garrow & Ass. 1994	Not Evaluated
44FX2093	Camp; Single Dwelling	Mid- to Late 19 th c.	Garrow & Ass. 1994	Not Evaluated
44FX2094	Earthwork & Railroad Bed	Mid-19 th c.	Thunderbird 2014; WMCAR 2006; Milner 2001; Garrow & Ass. 1994	Not Evaluated
44FX2173	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2174	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2175	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2176	Other	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2177	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2178	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2180	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

RESEARCH DESIGN

Resource	Resource Type	Association	Reference	NRHP Status
				(VDHR 1997)
44FX2181	Lithic Workshop	Prehistoric Unknown	TAA 1996	Not Eligible (VDHR 1997)
44FX2182	Single Dwelling	Mid- 18 th c. through 19 th c.	TAA 1996	Not Eligible (VDR 1997)
44FX2269	Lithic Workshop	Late Archaic	TAA 1995; Fairfax Co. 1994	Not Evaluated
44FX2304	Camp	Prehistoric Unknown	Fairfax Co. 1978	Not Evaluated
44FX2471	Single Dwelling	Mid- to Late 19 th c.	No Reference Recorded	Not Evaluated
44FX2472	Trash Scatter	19 th c.	No Reference Recorded	Not Evaluated
44FX2473	Lithic Workshop	Prehistoric Unknown	No Reference Recorded	Not Evaluated
44FX2474	Lithic Scatter; Trash Scatter	Prehistoric Unknown; 20 th c.	Fairfax Co. 2009; TAA 2000	Destroyed
44FX2550	Trash Scatter	Early to Mid-20 th c.	TAA 2001	Not Evaluated
44FX2741	Fort, Military Camp	Mid- to Late 19 th c.	Milner 2001	Not Evaluated
44FX2754	Camp	Mid- to Late 19 th c.	Milner 2001	Not Evaluated
44FX2771	Military Camp	Mid- to Late 19 th c.	Milner 2001	Not Evaluated
44FX2778	Single Dwelling; Farmstead	20 th c.	ATC, Inc. 2003	Not Evaluated
44FX2805	No Type Recorded	No Association Recorded	VDHR 2013; Fairfax Co. 2003	Not Evaluated
44FX3032	Lithic Workshop; Single Dwelling	Prehistoric Unknown; Late 19 th c. through 20 th c.	TAA 2011 & 2005	Not Evaluated
44FX3033	Temporary Camp; Single Dwelling	Prehistoric Unknown; 20 th c.	TAA 2005	Not Evaluated
44FX3235	Single Dwelling; Military Camp	19 th c. through 20 th c.	WMCAR 2007	Not Evaluated
44FX3237	Single Dwelling; Military Camp	19 th c.	WMCAR 2007	Not Evaluated
44FX3239	Camp	Mid- to Late 19 th c.	WMCAR 2007	Not Evaluated
44FX3243	Military Camp	Mid- to Late 19 th c.	WMCAR 2007	Not Evaluated
44FX3285	Single Dwelling; Military Camp	19 th c. and 20 th c.	WMCAR 2007	Not Evaluated
44FX3286	Artifact Scatter; Single Dwelling; Military Quarters	19 th c. through 21 st c.	TAA 2015; WMCAR 2007	Not Evaluated
44FX3287	Single Dwelling; Military Camp	19 th c. through 20 th c.	WMCAR 2007	Not Evaluated
44FX3301	Camp; Single Dwelling	Mid- to Late 19 th c.; Early to Mid-20 th c.	JMA, Inc. 2008	Not Evaluated



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

RESEARCH DESIGN

Resource	Resource Type	Association	Reference	NRHP Status
44FX3339	Camp	Mid- to Late 19 th c.	WMCAR 2007	Not Evaluated
44FX3375	Lithic Workshop	Prehistoric Unknown	JMA, Inc. 2008	Not Evaluated
44FX3376	Camp; Single Dwelling	Prehistoric Unknown; Late 19 th c. to Early 20 th c.	JMA, Inc. 2008	Not Evaluated
44FX3377	No Type Recorded	Prehistoric Unknown	JMA, Inc. 2008	Not Evaluated
44FX3453	Lithic Scatter	Prehistoric Unknown	ATC, Inc. 2009	Not Eligible (VDHR 2010)
44FX3777	Artifact Scatter	Early 19 th c.	Dovetail 2015	Not Evaluated

4.2.2 Architectural Resources

Four previously recorded architectural resource are located within the GTS project area (Table 3). A total of 223 additional previously recorded architectural resources are located within a 1-mile radius of the project area (Figure 10). Two Historic Districts cross the western most portion of the project area. The Cedar Avenue Historic District (VDHR #151-0013) has been determined potentially eligible and the Mosby Woods Historic District (VDHR #151-5519) has been determined not eligible for listing on the NRHP. The remaining two resources are commercial buildings (VDHR #151-5223 and #151-5224) that have not been evaluated. The remaining resources are primarily single dwellings and commercial buildings that have mostly been determined not eligible for NRHP inclusion or have not been evaluated.

Table 3 Previously Identified Architectural Resources within a 1-Mile Radius of the Study Area

Resource	Resource Type	Date	Reference	NRHP Status
151-0013	Cedar Avenue Historic District	c. 1890	Saxe 1988; Dovetail 2010 & 2014	Potentially Eligible (VDHR 2015)
151-5223	Commercial Building, 9780 Lee Highway	c. 1935	Traceries 2004	Not Evaluated
151-5224	Circle Glass	c. 1950	Traceries 2004	Not Evaluated
151-5519	Mosby Woods Historic District	1961	Dovetail 2014	Not Eligible (VDHR 2015)

***Highlighted Cells Refer to Resources within the Project Area**



Figure No.

9

Title

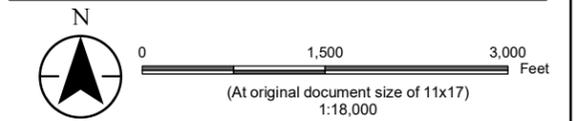
Previously Identified Archaeological Sites within a 1-Mile Radius of the Study Area

Client/Project
City of Fairfax
George T. Snyder Trail

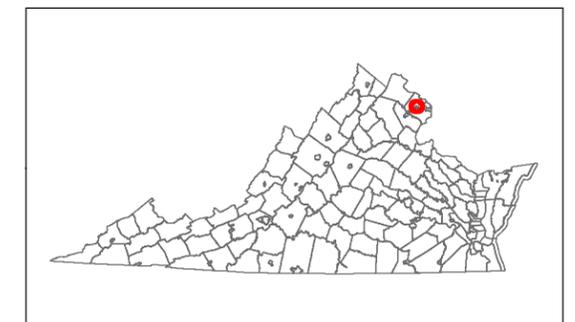
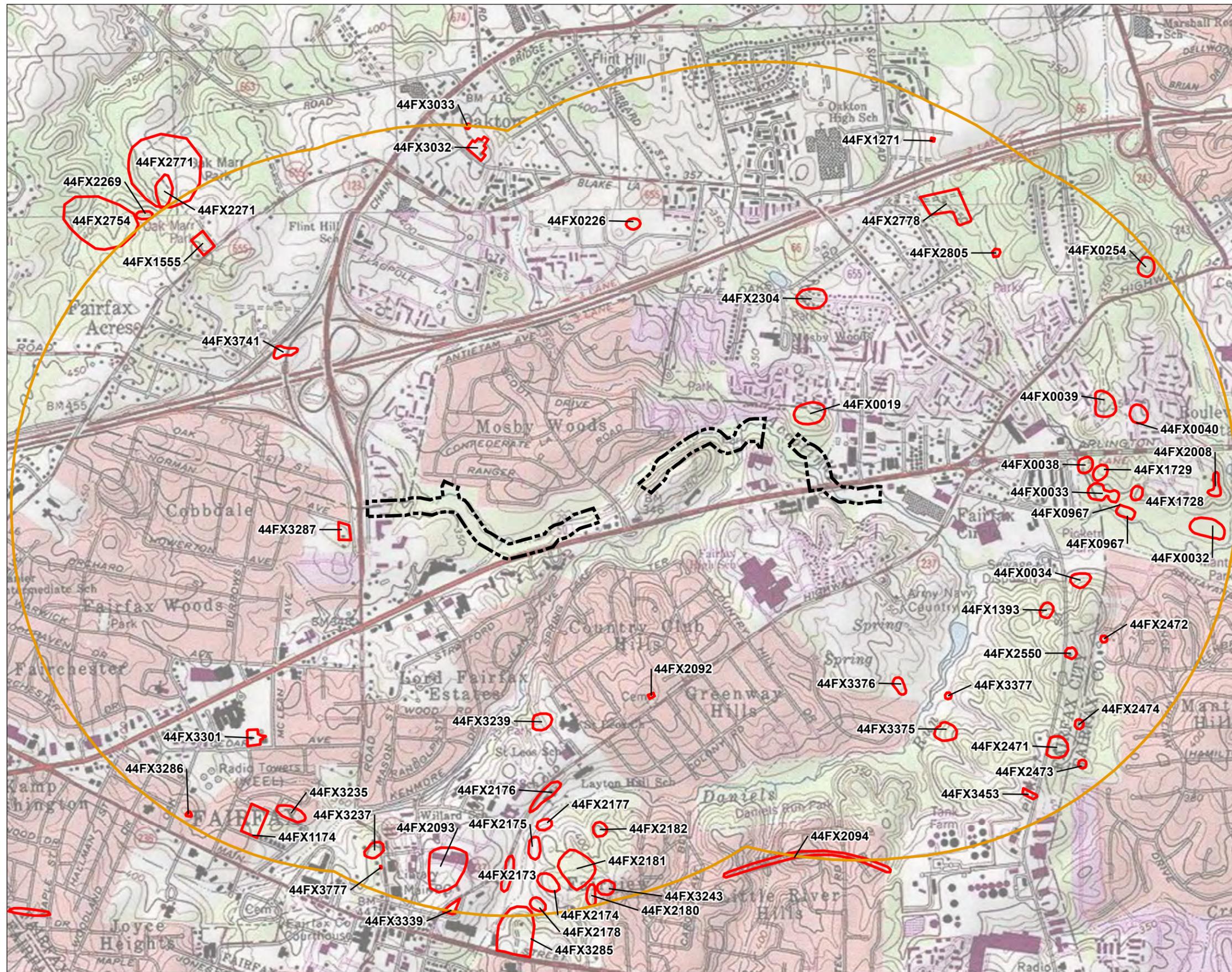
2026271807

Project Location
City of Fairfax, Virginia

Prepared by LJB on 2019-03-15
TR by ECL on 2019-04-04
IR by AL on 2019-05-07



-  Study Area
-  1-Mile Buffer
-  Archaeological Resource



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
 2. Data Sources: Stantec
 3. Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
 4. Topographic map © USGS 7.5 Minute Series Topographic Map, Fairfax, VA Quadrangle, 1998, and Vienna, VA Quadrangle, 1983



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

SURVEY METHODOLOGY

5.0 SURVEY METHODOLOGY

5.1 ARCHAEOLOGICAL SURVEY

Stantec field personnel conducted visual inspection of the entire approximately 42.41-acre project area, concurrently with systematic shovel testing. Shovel tests were excavated at 25-foot intervals along level landforms. Shovel testing did not occur in areas exhibiting 15 percent or greater slope or that were characterized by standing water or obvious ground disturbances.

All shovel tests measured approximately 1.25 feet (15 inches) in diameter and all soils excavated from the shovel tests were screened through 1/4-inch mesh hardware cloth. Depths of shovel tests were recorded in reference to the ground surface. Shovel tests were excavated stratigraphically, and close attention was paid to the distinction between the plow zone and the sub-plow zone. All shovel tests were excavated to sterile subsoil or the water table, whichever was encountered first. Descriptions of soil texture and color followed standard terminology and the Munsell (1994) soil color charts.

All pertinent data including: the site location, the location of features, any permanent landmarks, the topography, the vegetation, any disturbed areas, and the location of surface survey and subsurface tests was digitally collected utilizing ESRI's Collector for ArcGIS installed on Apple iPads enabled with GPS location services and supplemented by a Trimble R1 GPS Receiver. Field survey notes were collected by Stantec's Project Archaeologist documenting daily progress, conditions, and access issues.

5.2 ARCHITECTURAL SURVEY

The Phase I field survey strategy consisted of systematic identification and recordation of historic architectural resources dating to 50 years or older located on adjacent parcels to the proposed trail. The documentation efforts consisted of resurveying and re-evaluating previously recorded resources for NRHP eligibility in order to update the VDHR's V-CRIS database. A revised sketch map and photographs of all visible buildings present on the property was part of the update. Newly recorded resources within the architectural study area were also surveyed and the information recorded on a reconnaissance level architectural survey form. Sketch maps for the newly recorded resources were also drawn and the buildings/structures photographed, as visible. The Phase I architectural survey was conducted from public ROW only unless permission was specifically granted by the owner at the time of the field survey. In some cases, the resources were not visible from the public ROW, or the view was partially obscured due to vegetation and/or distance and therefore limited architectural survey was possible.

5.3 EXPECTED RESULTS

Native American sites are generally found within 1,000 to 1,500 feet of a significant water source, on moderately well- to well-drained soils on low relief landforms. The project area is comprised of areas of flat and sloping woodland on either side of Accotink Creek. Of the fifty-seven previously identified archaeological sites located within a 1-mile radius of the project area, twenty-six were prehistoric. One of



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

SURVEY METHODOLOGY

these resources (44FX0019), a site of indeterminate prehistoric temporal affiliation, was located in close proximity to the project area. Site 44FX0019 is situated north of the eastern end of the project area within Draper Drive Park and seems almost completely destroyed by athletic fields and residences. Although prehistoric sites are present in the immediate project area vicinity, the project area itself retains only moderate probability for the identification of prehistoric sites. The project area contains Accotink Creek; however, much of the project area is comprised of slope and wetlands associated with the waterway. These types of locations were likely to have been utilized only briefly. In addition, the construction of residential neighborhoods, commercial business property, and athletic fields from Stafford Drive Park and Draper Drive Park have significantly impacted the project area.

The project area is located between a modern neighborhoods and commercial properties, with the parking area for a hotel at the western end of the parking lot, and athletic fields on the south and north abutting the project area. Despite its location amid modern development, the project area itself has seen little change over time. Historic maps from the eighteenth- through the twentieth century indicate that little to no occupation occurred in the immediate vicinity of the project area. Of the 57 previously identified archaeological sites within 1 mile of the project area, 26 were historic. These resources primarily dated from the nineteenth century when nearby Fairfax was growing. There is a low to moderate probability of finding additional historic sites dating within the project area.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHAEOLOGICAL SURVEY RESULTS

6.0 ARCHAEOLOGICAL SURVEY RESULTS

6.1 ARCHAEOLOGICAL SURVEY

The project area is primarily comprised of woodland on either side of Accotink Creek. Shovel test locations were selected to examine subsurface conditions on specific types of landforms. No surface artifacts were noted, and no shovel tests were positive for cultural material. Photo documentation locations were chosen to document current conditions in areas not suitable for shovel testing (Appendix A).

Much of the project area was unsuitable for shovel testing. The western end of the project area contained significant slope (15 percent or greater), while much of the remainder of the project area was comprised of low, wet land. While this area did not constitute formal wetlands, it was nevertheless wet and appeared to be permanently so throughout much of the year. In addition, a sewer line extended through a portion of the project area located north of a parking lot and south of Ranger Road. Near the eastern end of the largest stretch of project area, shovel testing did not occur because the field archaeologist encountered active tent camps. The eastern end of the project was comprised primarily of previously disturbed soils (Figures 11–17; Appendix A).



Figure 11 West End of Project Area Looking toward STP 1; View to the Southeast.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

ARCHAEOLOGICAL SURVEY RESULTS



**Figure 12 Raised Berm of Abandoned Railroad with Aged Poplars Crossing Project Area;
View to the Northeast.**



Figure 13 Silted Drainage Area in Western Center of Project Area; View to the Northwest.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

ARCHAEOLOGICAL SURVEY RESULTS



Figure 14 Truncated Hilltop with Construction Push Piles and Park Structures; View to the Northeast.



Figure 15 Lane Etched into Slope Flanked by Aged Oaks; View to the Northeast.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

ARCHAEOLOGICAL SURVEY RESULTS



Figure 16 Modern Stream Restoration and Sewer Drain at Northeastern Point of Project Area; View to the Southwest.



Figure 17 Extreme Slope at Northeastern Edge of Project Area; View to the North.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHAEOLOGICAL SURVEY RESULTS

A total of 18 shovel tests were excavated at 25-foot intervals along level landforms within the project area. No shovel tests were positive for cultural material (Figure 18). A representative soil profile for the western end of the project area consisted of three strata. Stratum I (STP 12) was characterized as a layer of 10YR4/3 brown loam (A Horizon) that extended from approximately 0 to 0.3 feet below ground surface. Stratum I was underlain by Stratum II, a layer of 10YR4/6 dark yellowish-brown silty clay (Buried A Horizon) extending from approximately 0.3 to 0.5 feet below ground surface. Underlying Stratum II was Stratum III, a layer of 10YR5/6 yellowish-brown silty clay (Subsoil). Stratum III was excavated from approximately 0.5 to 1 foot below ground surface (Table 4).

Table 4 STP 12 Soil Profile

Stratum	Depth (ft.)	Color	Soil Type/Texture	Interpretation
I	0-0.3	10YR4/3 Brown	Loam	A Horizon
II	0.3-0.5	10YR4/6 Dark Yellowish Brown	Loamy Clay	Buried A Horizon
III	0.5-1	10YR5/6 Yellowish Brown	Silty Clay	Subsoil

A representative soil profile for the eastern end of the project area consisted of three strata. Stratum I (STP 17) was characterized as a layer of 10YR3/4 dark yellowish-brown silty loam (A Horizon) that extended from approximately 0 to 0.1 foot below ground surface. Stratum I was underlain by Stratum II, a layer of 10YR5/4 yellowish-brown silty loam (Buried A Horizon) that extended from approximately 0.1 to 0.7 feet below ground surface. Underlying Stratum II was Stratum III, a layer of 10YR6/4 light yellowish-brown silty clay (Subsoil). Stratum III was excavated from approximately 0.7 to 1 foot below ground surface (Table 5).

Table 5 STP 17 Soil Profile

Stratum	Depth (ft.)	Color	Soil Type/Texture	Interpretation
I	0-0.1	10YR3/4 Dark Yellowish Brown	Silty Loam	A Horizon
II	0.1-0.7	10YR5/4 Yellowish Brown	Silty Loam	Buried A Horizon
III	0.7-1	10YR6/4 Light Yellowish Brown	Silty Clay	Subsoil

6.2 ARCHAEOLOGICAL RESULTS

No new isolated archaeological finds or new archaeological sites were identified during this investigation. While no cultural resources were encountered during this survey, landscape features were present.

6.2.1 Landscape Features

Three landscape features were encountered during this investigation. One was present in the western project area segment, one in the central project area segment, and one in the eastern project area segment.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHAEOLOGICAL SURVEY RESULTS

6.2.1.1 Landscape Feature 1

Landscape Feature 1 represented an active tent camp located at the eastern end of the westernmost project area segment. The tent camp was well-constructed and included clearing of topsoil to level of area for the erection of tents and other camp related facilities (Figure 18). Tent camps were encountered throughout this portion of the project area. Due to the ground disturbance caused by construction of the camps as well as safety concerns, shovel testing was not conducted in this area. In addition, photo documentation was kept to a minimum as occupants were encountered during this survey.



Figure 18 Active Tent Camp at the Eastern End of the Western Project Area Segment; View to the North.

6.2.1.2 Landscape Feature 2

Landscape Feature 2 represented an existing dirt and gravel path bisecting the central portion of the center project area segment (Figure 19).

6.2.1.3 Landscape Feature 3

Landscape Feature 3 represented a modern stream restoration feature comprised of stacked stones along the banks of Accotink Creek and terminating at a stacked stone weir near the eastern end of the eastern project area segment (Figures 20 and 21).



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

ARCHAEOLOGICAL SURVEY RESULTS



Figure 19 Gravel Path near the Center of the Central Project Area Segment; View to the Northeast.



Figure 20 Modern Stone Stream Restoration Structure in the Eastern Project Area Segment; View to the Southwest.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

ARCHAEOLOGICAL SURVEY RESULTS



Figure 21 Modern Stone Stream Restoration Structure in the Eastern Project Area Segment; View to the Southeast.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHITECTURAL SURVEY RESULTS

7.0 ARCHITECTURAL SURVEY RESULTS

The Phase I architectural survey for the GST was conducted by Stantec on July 19, 2019. The documentation of the architectural resources was conducted pursuant to the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* [USDI 1983]) and state (*Guidelines for Conducting Historic Resources Survey in Virginia* [VDHR 2017]) guidelines.

7.1 PHASE I ARCHITECTURAL SURVEY

A total of four individual resources were surveyed and included three previously recorded resources and one newly recorded resource (Appendix B; Table 6). None of the previously recorded resources surveyed for the current project had been evaluated for NRHP eligibility by VDHR. The Mosby Woods Historic District (VDHR #151-5519) and the Washington and Virginia Railway Company rail line (VDHR #029-5470) are located adjacent to and cross the project area, respectively, however, the resources have been determined by VDHR as not eligible for listing within the last 5 years and therefore were not resurveyed during the current undertaking.

7.1.1 Previously Recorded Resources

The previously recorded individual resources surveyed during the current project included three commercial buildings located on the north side of Lee Highway/Fairfax Boulevard. No other individual previously recorded resources were located on adjacent parcels to the project area that required survey.

Table 6 Previously Recorded Architectural Resources within the Snyder Trail Project Area

VDHR #	Resource Name	Date	NRHP Status/Recommendation
151-5222	Service Station, 9772 Lee Highway	1965	Not Evaluated
151-5223	Commercial Building, 9780 Lee Highway	1949	Not Evaluated
151-5224	Commercial Building, 9788 Lee Highway	1951	Not Evaluated

7.1.1.1 Commercial Resources

The commercial resources date to the mid-twentieth century and include a former service station, now 1st Choice Auto Sale/Moore Automotive (VDHR #151-5222), Town and Country Animal Hospital (VDHR #151-5223) and Circle Glass (VDHR #151-5224). The building which houses 1st Choice Auto Sale is concrete block construction with modern metal cladding on the façade with an awning extending across the front. The building retains some of its original metal commercial-style windows as well as its brick flue.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHITECTURAL SURVEY RESULTS

Behind the original block is a one-story concrete block ell. Immediately behind and attached to the building is a modern metal clad garage which currently houses Moore Automotive (Figure 22).

The Town and Country Animal Hospital comprises two abutting buildings. The eastern building is now a one-and-a-half-story structure with concrete block walls on the first floor with brick veneer on the facade. The frame section above with two dormers appears to be a later addition to raise the building for additional space. The western bay may have been utilized as a car wash at one time. The building extends to the rear and features a brick flue. The western section is one-story with concrete block walls and brick veneer on the façade. The building features six bays with modern metal entry doors, with the exception of the eastern-most door which is metal and glass, and vinyl bay windows (Figure 23).

The third commercial building, which currently houses Circle Glass, is also one-story with concrete block walls and brick veneer façade. The building features three bays with entry into the building in the first bay. The two remaining bays are large, single-light commercial-style fixed windows. A garage bay is located on the western elevation with an additional single-light fixed commercial style window (Figure 24).



Figure 22 Commercial Building (VDHR #151-5222), 9772 Lee Highway, View Looking Northwest.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHITECTURAL SURVEY RESULTS



Figure 23 Commercial Building (VDHR #151-5223), 9780 Lee Highway, View Looking Northwest.



Figure 24 Commercial Building (VDHR #151-5224), 9788 Lee Highway, View Looking Northeast.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

ARCHITECTURAL SURVEY RESULTS

7.1.2 Newly Recorded Resources

One newly recorded resource was documented during the current survey, a dwelling dating to c. 1870 (Table 7). The dwelling had limited visibility due to tree cover and therefore some architectural elements were obscured from view.

Table 7 Newly Recorded Architectural Resources Surveyed within the Snyder Trail Project Area

VDHR #	Resource Name	Date
151-5557	House, 3401 Chain Bridge Road	c. 1870

7.1.2.1 Residential

The newly recorded dwelling is an altered two-and-a-half-story vernacular house, which appears to date to the late nineteenth century as suggested by the placement and position of the chimney. The house features a two-story ell with one-story ell/wing off the ell's northeast corner. The porch has been partially enclosed and features a flat roof and balustrade. The configuration of the porch suggests a more modern alteration or replacement. The dwelling also features an exterior end brick chimney on the main block, as well as the ell, and gable end returns. Gable-roofed dormers project from the front roof slope and are likely later additions (Figure 25).

7.1.2.2 Secondary Resources

A single secondary resource, a playhouse, was visible on the property. The building is a small frame structure with weatherboard sheathing and a three-bay shed-roofed porch (Figure 26).



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

ARCHITECTURAL SURVEY RESULTS



Figure 25 Dwelling (VDHR #151-5557), 3401 Chain Bridge Road, View Looking Northeast.

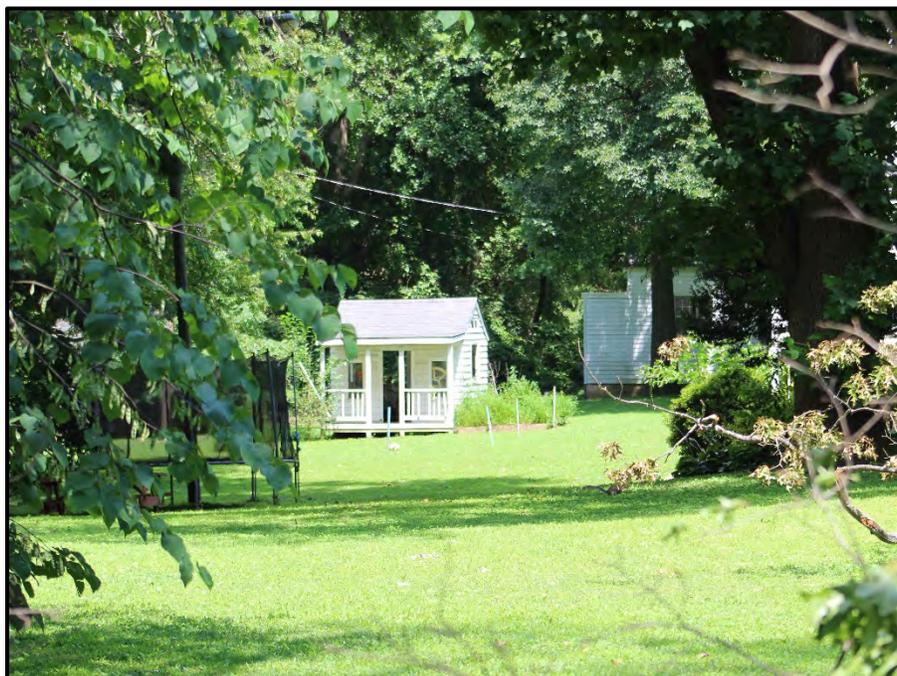


Figure 26 Playhouse (VDHR #151-5557), 3401 Chain Bridge Road, View Looking Northeast.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CONCLUSIONS AND RECOMMENDATIONS

8.0 CONCLUSIONS AND RECOMMENDATIONS

From June 1–3, 2019 and on July 19, 2019, Stantec conducted a Phase I cultural resources survey of approximately 42.41-acres associated with the proposed GTS Trail from Chain Bridge Road to the Wilcoxon Park Trail, Section 1, in Fairfax County, Virginia. The project area is comprised of woodland representing both City owned park land and private property on either side of Accotink Creek. The project area was primarily situated between residential neighborhoods.

The Phase I cultural resources survey was designed to locate and identify archaeological and architectural resources within the defined project area and to obtain sufficient information to make recommendations regarding their potential eligibility for listing in the NRHP. During the survey, Stantec conducted pedestrian survey of the entire 2.1-mile project area, in conjunction with systematic subsurface testing. A total of 18 shovel tests were excavated at 25-foot intervals along level landforms. No shovel tests were positive for cultural material.

No new archaeological resources were identified during this survey. Given the significant disturbance to the project area caused by the presence of abandoned railroads, construction debris, sewer drains, and eroded soils, as well as the presence of significant wetland, the project area lacks subsurface integrity and retains little to no research potential. ***Stantec recommends that no further archaeological investigation is necessary within the project area.***

Architectural Survey

A total of four individual resources were surveyed and included three previously recorded resources and one newly recorded resource (Appendix B; Table 8). None of the previously recorded resources surveyed during the current project have been evaluated for NRHP eligibility by VDHR. The Mosby Woods Historic District (VDHR #151-5519) and the Washington and Virginia Railway Company rail line (VDHR #029-5470) are located adjacent to and cross the project area, respectively, however, the resources have been determined by VDHR as not eligible for listing within the last five years and therefore were not resurveyed during the current undertaking.

The newly and previously recorded resources, though generally reflective of the late to mid-twentieth century development of Fairfax County, lack direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resources are not individually eligible for listing on the NRHP (Table 8). Criterion D, typically associated with archaeological sites, was not considered applicable in regards to the architectural survey.

The resources, under NRHP Criterion A do not individually express any distinctive themes relating to the development of Fairfax County and do not contribute significantly to the county's growth. It is recommended therefore that the resources do not meet the criteria necessary for individual listing on the NRHP under Criterion A as the properties were constructed in response to the general development of the area and are commonly represented in Fairfax County.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

CONCLUSIONS AND RECOMMENDATIONS

The resources surveyed do not appear to be associated with any known individuals who made significant contributions to the historical development of Fairfax County. Although limited information about the occupants of the properties is known, it does not appear that the occupants would be considered of transcendent importance to the Nation’s history and therefore the resources do not meet the criteria necessary for listing on the NRHP under Criterion B.

The resources do not appear to have significant architectural integrity for listing on the NRHP under Criterion C and are of a common type. In addition, the resources are utilitarian in design and do not embody distinctive characteristics of a type, period, or method of construction nor do the buildings represent the work of a master. The resources, instead, are typical of construction from their time period. It is therefore recommended that the resources surveyed do not meet the criteria necessary for listing on the NRHP under Criterion C. ***No further work is recommended for the newly and previously recorded resources as part of the Snyder Trail project.***

Table 8 NRHP Eligibility Recommendations for Architectural Resources Surveyed within the Snyder Trail Project

VDHR #	Resource Name	Date	NRHP Status/Recommendation
151-5222	Service Station, 9772 Lee Highway	1965	Recommended Not Eligible for Listing on the NRHP
151-5223	Commercial Building, 9780 Lee Highway	1949	Recommended Not Eligible for Listing on the NRHP
151-5224	Commercial Building, 9788 Lee Highway	1951	Recommended Not Eligible for Listing on the NRHP
151-5557	House, 3401 Chain Bridge Road	c. 1870	Recommended Not Eligible for Listing on the NRHP



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

9.0 REFERENCES

Advisory Council for Historic Preservation (ACHP)

2000 36 CFR 800: Part 800 - Protection of Historic and Cultural Properties. Federal Register, September 2, Washington, D.C.

Amick, Daniel S. and Phillip J. Carr

1996 Changing Strategies of Lithic Technological Organization. In *Archaeology of the Mid-Holocene Southeast*, edited by Kenneth E. Sassaman and David G. Anderson, pp. 41-56. The University Press of Florida, Gainesville, Florida.

Barber, Michael B., and George A. Tolley

1984 The Savannah River Broadspear: A View from the Blue Ridge. In *Upland Archaeology in the East: Symposium 2*, ed. C. R. Geier, M. B. Barber, and G. A. Tolley, pp. 25-43. USDA, Forest Service, Southern Region.

Blanton, Dennis B.

1992 Middle Woodland Settlement Systems in Virginia. In *Middle and Late Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 65-96. Special Publication No. 29 of the Archaeological Society of Virginia. The Diez Press, Richmond.

1996 Accounting for Submerged Mid-Holocene Archaeological Sites in the Southeast: A Case from the Chesapeake Bay Estuary, Virginia. In *Archaeology of the Mid Holocene Southeast*, edited by Kenneth E. Sassaman and David G. Anderson, pp. 200-217. University Press of Florida, Gainesville.

Bourdeau, J.

1981 Replicating Quartz Squibnocket Small Stemmed and Triangular Projectile Points. In *Quartz Technology in Prehistoric New England*, ed. R. Barber. Institute for Conservation Archaeology, Peabody Museum, Harvard University: Cambridge, Mass.

Boyd, C.C., Jr.

1989 Paleoindian Paleoecology and Subsistence in Virginia. In *Paleoindian Research in Virginia: A Synthesis*, edited by J. M. Wittkofski and T. R. Reinhart, pp. 53-70. Special Publication No. 19 of the Archeological Society of Virginia. Dietz, Richmond

Böye, Herman, Henry Schenek Tanner, E.B. Dawson, and William Branch Giles

1859 *A map of the state of Virginia: reduced from the nine sheet map of the state in conformity to law.* Philadelphia. Library of Congress Geography and Map Collection.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

Brown, G.B.

1994 *A History of Prince William County*. Historic Prince William, Inc., Prince William, Virginia.

Brown, James A.

1986 Early Ceramics and Culture: A Review of Interpretations. In *Early Woodland Archaeology*, ed. K. B. Farnsworth and T. E. Emerson, pp. 598-608. Center for American Archaeology, Kampsville Seminars in Archaeology No. 2, Kampsville, IL.

1989 The Origins of Pottery as an Economic Process. In *What's New: A Closer Look at the Process of Innovation*, ed. S. E. van der Leeuw and R. Torrence, pp. 203-224. Unwin-Hyman: London, UK.

Broyles, Bettye J.

1971 *The St. Albans Site, Kanawha County, West Virginia*. Report of Archaeological Investigations No. 3. West Virginia Geological and Economic Survey.

Callahan, M.

2012a *Annadale's Original Commercial District*. Available from:

<http://www.annadalechamber.com/annadaleoriginalcommercialdistrict.rhtml>, Accessed October 2018.

2012b *Ravensworth Plantation: 1796*. Available from:

<http://www.annadalechamber.com/ravensworthplantation.rhtml>, Accessed October 2019.

Capone, Audrey B.

1985 *Ravensworth: A Short History of Annadale, Virginia*. Available from:

<http://annadale.va.us/history.html>,

Accessed October 2018.

Chapman, Jefferson, and Andrea Brewer Shea

1981 The Archaeobotanical Record: Early Archaic Period to Contact in the Lower Little Tennessee River Valley. In *Tennessee Anthropologist* VI (1):61-84.

Civil War Trust

2014 *Battle of Chantilly: Ox Hill*. Available from:

<http://www.civilwar.org/battlefields/chantilly.html?referrer=https://www.google.com/>, Accessed October 2018.

Coe, Joffrey L.

1964 The Formative Cultures of the Carolina Piedmont. In *Transactions of the American Philosophical Society*, N.S. 54(4), Philadelphia.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

REFERENCES

College of William and Mary Department of Geology

2011 *Piedmont Province*. Available from:

<http://web.wm.edu/geology/virginia/provinces/piedmont/piedmont.html?svr=www>.

Custer, J.F.

1989 *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*. University of Delaware Press: Newark, DE.

Dent, Richard J., Jr.

1995 *Chesapeake Prehistory: Old Traditions, New Directions*. Plenum Press, New York.

Egloff, Keith T.

1991 Development and Impact of Ceramics in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*. T. R. Reinhart and M. E. N. Hodges ed., pp. 243-253. The Dietz Press: Richmond, Virginia.

Egloff, Keith T. and Stephen R. Potter

1982 Indian Ceramics from Coastal Plain Virginia. In *Archaeology of Eastern North America* 10:95-117.

Evans, D'anne

1988 *Prince William County: A Pictorial History*. Donning Company, Norfolk, Virginia.

Fairfax County Economic Development Authority

n.d. *History of Fairfax County, Virginia*. Available from: <http://www.fairfaxcountyeda.org/history-fairfax-county-virginia>, Accessed October 2018.

Fairfax County, Virginia

2014 Heritage Resources. In *Fairfax County Comprehensive Plan, 2013 Edition (Amended through 4-29-2014)*. Available from: <http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/heritage.pdf>, Accessed October 2018.

2016 *Ox Hill Battlefield Park*. Available from: <http://www.fairfaxcounty.gov/parks/oxhill/>, Accessed 2017.

Fesler, Garrett and Martha McCartney

1993 *Phase I Archaeological Survey of 5.2 Acres of Federal Wetlands Locations, A 6.9 Acre Future Lake Site, and a 4.8 Acre Mitigation Area, The South Riding Property, Loudoun County, Virginia*. James River Institute for Archaeology, Inc., Williamsburg.

Fiedel, S. J.

2001 What Happened in the Early Woodland? In *Archaeology of Eastern North America* 29:101-142.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

REFERENCES

Fiedel, Stuart, and Gary Haynes

2004 A Premature Burial: Comments on Grayson and Meltzer's "Requiem for Overkill." In *Journal of Archaeological Science* 31:121-131.

Gallivan, Martin D.

2003 *James River Chiefdoms: The Rise of Social Inequality in the Chesapeake*. University of Nebraska Press, Lincoln.

Gallivan, M. D., and J. McKnight

2006 *Archaeobotanical Assessment of Chesapeake Horticulture: The View from Werowocomoco*. Paper Presented at the Middle Atlantic Archaeological Conference, Virginia Beach, Virginia.

Gardner, William M.

1974 *The Flint Run Paleoindian Complex: Preliminary Report 1971-73 Seasons*. Occasional Publication No. 1, Department of Anthropology, The Catholic University of America, Washington, D.C.

1982 Early and Middle Woodland in the Middle Atlantic: An Overview. In *Practicing Environmental Archaeology: Methods and Interpretations*, edited by Roger W. Moeller, pp. 53-86. American Indian Archaeological Institute *Occasional Paper* No. 3.

1986 *Lost Arrowheads and Broken Pottery*. Thunderbird Publications, Manassas, Virginia.

1989 An Examination of Cultural Change in the Late Pleistocene and Early Holocene (Circa 9200 to 6800 B.C.). In *Paleoindian Research in Virginia: A Synthesis*, edited by J. Mark Wittkofski and Theodore R. Reinhart, pp. 5-51. Dietz Press, Richmond.

Geier, Clarence R.

1990 The Early and Middle Archaic Periods; Material Culture and Technology. In *Early and Middle Archaic Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 81-98. Archeological Society of Virginia Special Publication No. 22. The Dietz Press, Richmond.

George Mason University

2005 *About the University*. Available from: <http://www.gmu.edu/resources/about/>, Accessed October 2018.

Gleach, Frederic

1985 A Compilation of Radiocarbon Dates with Applicability to Central Virginia. In *Quarterly Bulletin, Archeological Society of Virginia* 40(4):180-200.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

REFERENCES

Goodyear, A. C.

1979 *A Hypothesis for the Use of Cryptocrystalline Raw Materials among Paleoindian Groups of North America*. Research Manuscript Series No. 156. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Grayson, Donald K., and David J. Meltzer

2003 A Requiem for North American Overkill. In *Journal of Archaeological Science* 30:585-593.

Haile, E. W.

1998 *Jamestown Narratives: Eyewitness Accounts of the Virginia Colony, The First Decade: 1607-1617*. Roundhouse, Champlain, Virginia.

Hennessy, John

1989 *The First Battle of Manassas: An End to Innocence, July 18-21, 1861*. H. E. Howard, Inc. Lynchburg, Virginia.

Hodges, Mary Ellen N.

1991 The Late Archaic and Early Woodland Periods in Virginia: Interpretation and Explanation within an Eastern Context. In *Late Archaic and Early Woodland Research in Virginia*, ed. T. R. Reinhart and M. E. N. Hodges, pp. 221-242. The Dietz Press: Richmond, Virginia.

Hodges, Mary Ellen N., and Charles T. Hodges, editors

1994 *Paspahegh Archaeology: Data Recovery Investigations of Site 44JC308 at The Governor's Land at Two Rivers, James City County, Virginia*. Prepared by James River Institute for Archaeology, Inc. Prepared for Governor's Land Associates, Inc.

Hoffman, J. Paul and Samuel Howell Brown

n.d. *[A Map of Fairfax County, and parts of Loudoun and Prince William Counties, Va., and the District of Columbia]*. Library of Congress Geography and Map Division.

Hranicky, William J.

2003 *Projectile Point Typology for the Commonwealth of Virginia*. Virginia Academic Press, Alexandria, Virginia.

Isgrig, Dan, and Adolph Strobel, Jr.

1974 *Soil Survey of Stafford and King George Counties, Virginia*. United States Department of Agriculture and Virginia Polytechnic Institute and State University, Washington, D.C.

Johnson, Michael F.

2001 Gulf Branch (44AR5): Prehistoric Interaction at the Potomac Fall Line. In *Quarterly Bulletin, Archeological Society of Virginia* 56(3):77-114.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

Justice, Noel D.

1995 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington.

Kaplan, Barbara Beigun

1993 *Land and Heritage in the Virginia Tidewater: A History of King and Queen County*. Cadmus Fine Books, Richmond, Virginia.

Keller, Kenneth W.

2000 The Wheat Trade on the Upper Potomac, 1800-1860. In *After the Backcountry: Rural Life in the Great Valley of Virginia, 1800-1900*, ed. K. E. Koons and W. R. Hofstra, pp. 21-33. The University of Tennessee Press: Knoxville, TN.

Kirchen, Roger

2001 *The E. Davis Site: Technological Change at the Archaic-Woodland Transition*. M.A. Thesis, Department of Anthropology, Wake Forest University, Winston-Salem, NC.

Klein, Michael J.

1997 The Transition from Soapstone Bowls to Marcey Creek Ceramics in the Middle Atlantic Region: Vessel Technology, Ethnographic Data, and Regional Exchange. In *Archaeology of Eastern North America* 25:143-158.

Klein, Michael J. and Thomas Klatka

1991 Late Archaic and Early Woodland Demography and Settlement. In *Late Archaic and Early Woodland Research in Virginia: A Synopsis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 139-184. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

Klein, Mike, and J. Sanderson Stevens

1996 Ceramic Attributes and Accokeek Creek Chronology: An Analysis of Sherds from the Falcon's Landing (18Pr131) and Accotink Meander (44FX1908) Sites. In *North American Archaeologist* 17(2):113-142.

Kulikoff, Allan

1986 *Tobacco and Slaves: The Development of Southern Cultures in the Chesapeake, 1680-1800*. University of North Carolina Press, Chapel Hill.

Louis Berger & Associates, Inc. (Berger)

1991 *Phase IB Cultural Resource Survey of the Clermont Avenue Interchange, City of Alexandria and Fairfax County, Virginia*.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

McAllister, J.T.

1913 *Virginia Militia in the Revolutionary War*. University of Pittsburgh. Available from:
https://archive.org/stream/viriniamilitiai00mcal/viriniamilitiai00mcal_djvu.txt, Accessed October
2018.

McAvoy, Joseph M.

1992 *Nottaway River Survey, Part I. Clovis Settlement Patters: The 30-Year Study of a Late Ice Age
Hunting Culture on the Southern Interior Coastal Plain of Virginia*. Special Publication No. 28 of
the Archeological Society of Virginia. The Dietz Press, Richmond.

McAvoy, Joseph M., and Lynn D. McAvoy

1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia*. Research
Report Series No. 8. Virginia Department of Historic Resources, Richmond.

McCary, Ben C.

1957 *Indians in Seventeenth-Century Virginia*. University of Virginia Press, Charlottesville, Virginia.

McLearen, Douglas C.

1991 Late Archaic and Early Woodland Material Culture in Virginia. In *Late Archaic and Early
Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N.
Hodges, pp. 89-138. Archeological Society of Virginia Special Publication No. 23. Dietz Press,
Richmond.

1992 Virginia's Middle Woodland Period: A Regional Perspective. In *Middle and Late Woodland
Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp.
39-64. Council of Virginia Archaeologists and the Archeological Society of Virginia. The Dietz
Press, Richmond.

McPherson, James

1988 *Battle Cry of Freedom: The Civil War Era*. Oxford University Press, Oxford, UK.

Madison, James

1818 *View of Richmond, Metropolis of Virginia*. David Rumsey Map Collection.

Manerin, Louis H., and Clifford Dowdey

1984 *The History of Henrico County*. University Press of Virginia, Charlottesville.

Manson, Carl

1947 Marcey Creek Site: An Early Manifestation in the Potomac Valley. In *American Antiquity* 13:223-
227.

Martin, Joseph

1835 *Gazetteer of Virginia and the District of Columbia*. Charlottesville, 1835, p. 168.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

Meltzer, David J.

1988 Late Pleistocene Human Adaptations in Eastern North America. In *Journal of World Prehistory* 2:1-52.

Michler, Nathaniel

1864 [*Map of Fairfax and Alexandria counties, Virginia, and parts of adjoining counties*]. Library of Congress Geography and Map Division.

Mounier and Martin

1994 For Crying Out Loud!: News About Teardrops. In *Journal of Middle Atlantic Archaeology* 10:125-140.

Mouer, L. Daniel

1991a The Formative Transition in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges. Special Publication No. 23. The Dietz Press, Richmond.

1991b The Formative Transition in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 1-88. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

Mouer, L. Daniel, Frederic W. Gleach, and Douglas C. McLearen

1986 A Ceramics Temporal Typology in Progress for Central Virginia. In *Archaeology in Henrico, Volume 2: Introduction to Phase 2 and Phase 3 Archaeological Investigations of the Henrico County Regional Wastewater System*, edited by L.D. Mouer, pp. 119-149. Virginia Commonwealth University Archaeological Research Center, Richmond. Submitted to Henrico County, Virginia. On file at the VDHR, Richmond.

Mouer, L. Daniel, Douglas C. McLearen, R. Taft Kiser, C. P. Egghard, B. J. Binns, and Dane T. Magoon

1992 *Jordan's Journey*. Virginia Commonwealth Archaeological Research Center, Richmond, Virginia.

Munsell Color

1994 *Munsell Soil Color Charts*. Macbeth Division of Kollmorgen Instruments Corporation, New Windsor, NY.

Netherton, Ross and Nan Netherton

1992 *Fairfax County: A Contemporary Portrait*. The Donning Company, Virginia Beach.

Netherton, Nan, et al.

1978 *Fairfax County, Virginia: A History*. Fairfax County Board of Supervisors, Fairfax, Virginia.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

Phelps, David Sutton

1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina: An Archaeological Symposium*, edited by Mark A. Mathis and Jeffrey J. Crow, pp. 1-51. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.

Poland, Charles Preston, Jr.

1976 *From Frontier to Suburbia*. Walsworth Publishing Co., Marceline, Missouri.

Potter, Stephen R.

1993 *Commoners, Tribute, and Chiefs: The Development of Algonquian Culture in the Potomac Valley*. University Press of Virginia: Charlottesville, VA.

Reed, Patrick

1992 Fairfax County: The Electric Connection, 1900-1925. In *Fairfax County, Virginia: A History*, edited by N. Netherton, pp. 251-391. Originally published 1978. 250th Anniversary Commemorative Edition. Fairfax County Board of Supervisors, Fairfax, Virginia.

Ritchie, W. A.

1971 *A Typology and Nomenclature for New York Projectile Points*. New York State Museum and Science Service, *Bulletin 384*, Albany.

Roberts, C. and C. M. Bailey

2000 *Physiographic Map of Virginia Counties*. Modified from Virginia Division of Mineral Resources/U.S. Geological Survey Map of Mineral Producing Localities. Available from: https://training.fws.gov/courses/CSP/CSP3200/resources/documents/Physiographic_Map_of_Virginia.pdf, Accessed 2018.

Salmon, John S.

2001 *The Official Virginia Civil War Battlefield Guide*. Stackpole Books, Mechanicsburg, Pennsylvania.

Sassaman, Kenneth E.

1999 A Southeastern Perspective on Soapstone Vessel Technology in the Northeast. In *The Archaeological Northeast*, ed. M. A. Levine, K. E. Sassaman, and M. S. Nassaney, pp. 7 5-98. Bergin & Garvey: Westport, CT.

Seiner, W. H.

1985 Charles Yates, The Grain Trade, and Economic Development in Fredericksburg, Virginia, 1750-1810. In *Virginia Magazine of History and Biography* 93(4):409-426.

Slattery, Richard C.

1946 A Prehistoric Indian Site on Selden Island, Montgomery County, Maryland. In *Journal of the Washington Academy of Sciences* 36:262-266.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

Smith, John

1624 *Virginia Discovered and Discribed* [sic]. Map on file. Virginia Dept. of Historic Resources, Richmond.

Smith, Marvin T. and Julie Barnes Smith

1989 Engraved Shell Masks in North America. In *Southeastern Archaeology* 8(1):9-18.

Sprouse, E. M.

1975 *Colchester: Colonial Port on the Potomac*. Fairfax County Office of Comprehensive Planning, Fairfax, Virginia.

Stephenson, Robert L.

1963 *The Accokeek Creek Site: A Middle Atlantic Seaboard Culture Sequence*. Anthropological Papers, Museum of Anthropology, University of Michigan, No. 20, Ann Arbor.

Stewart, T. Dale

1989 Archeological Exploration of Patawomeke: The Indian Town Site (44ST2) Ancestral to the One (44St1) Visited in 1608 by Captain John Smith. In *Smithsonian Contributions to Anthropology* Number 36.

Stewart, R. Michael

1992 Observations on the Middle Woodland Period of Virginia. In *Middle and Late Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 1-38. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

1995 The Status of Woodland Prehistory in the Middle Atlantic Region. In *Archaeology of Eastern North America* 23:177-206.

1998 *Unraveling the Mystery of Zoned Decorated Pottery: Implications for Middle Woodland Society*. Dietz Press, Richmond.

Tyson's Partnership

2015 *History of Tysons*. Available from: <https://www.tysonspartnership.org/new-tysons/history-oftysons/>, Accessed 2016.

United States Department of the Interior (USDI)

1981 *Department of the Interior's Regulations, 36 CFR Part 60: National Register of Historic Places*. U.S. Department of the Interior, Washington, D.C.

1983 *Department of the Interior, Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. U.S. Department of the Interior, Washington, D.C.



A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA

REFERENCES

1991 How to Apply the National Register Criteria for Evaluation. *National Register Bulletin 15*. U.S. Department of the Interior, Interagency Resources Division, Washington D.C.

United States Department of War

1881 *The War of the Rebellion*. Series I, Vol. II. Government Printing Office, Washington, D.C.

United States Geological Survey (USGS)

1890 *Mt. Vernon, Virginia* 30 Minute Quadrangle.

1897 *Mt. Vernon, Virginia* 30 Minute Quadrangle.

1955 *Fairfax, Virginia* 7.5 Minute Quadrangle.

Virginia Department of Environmental Quality (DEQ)

n.d. *Physiographic Provinces of Virginia*. Available from:

<http://www.deq.state.va.us/Programs/Water/WaterSupplyWaterQuantity/GroundwaterProtectionSteeringCommittee/PhysiographicProvincesofVirginia.aspx>.

Virginia Department of Historic Resources (VDHR)

1986 City of Fairfax Historic District (#151-0003 NRHP Nomination Form), Accessed 2017.

2017 *Guidelines for Conducting Historic Resources Survey in Virginia*. VDHR, Richmond.

2018 Archaeological and Architectural Site Files.

Waltmyer, T.

1995 A Complete History of the Woodbridge Research Facility. In *Journal of Historic Prince William* 3:40-60.

Ward, H. Trawick and R.P. Stephen Davis Jr.

1999 *Time Before History: The Archaeology of North Carolina*. University of North Carolina Press, Chapel Hill.

Warner, John

1747? *A survey of the northern neck of Virginia, being the lands belonging to the Rt. Honourable Thomas Lord Fairfax Baron Cameron, bounded by & within the Bay of Chesapoyocke and between the rivers Rappahannock and Potowmack: With the courses of the rivers Rappahannock and Potowmack, in Virginia, as surveyed according to order in the years 1736 & 1737*. Library of Congress Geography and Map Division.

Waselkov, Gregory A.

1982 *Shellfish Gathering and Shell Midden Archaeology*. Ph.D. dissertation, University of North Carolina, Chapel Hill.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

REFERENCES

Willey, Gordon R. and Phillip Phillips

1958 *Method and Theory in American Archaeology*. University of Chicago Press, Chicago.

Yarnell, Richard A.

1976 Early Plant Husbandry in Eastern North America. In *Cultural Change and Continuity: Essays in Honor of James Bennett Griffin*, edited by Charles E. Cleland. Academic Press, New York.



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

APPENDICES

**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

Appendix A ARCHAEOLOGICAL BASE MAP

Appendix A ARCHAEOLOGICAL BASE MAP



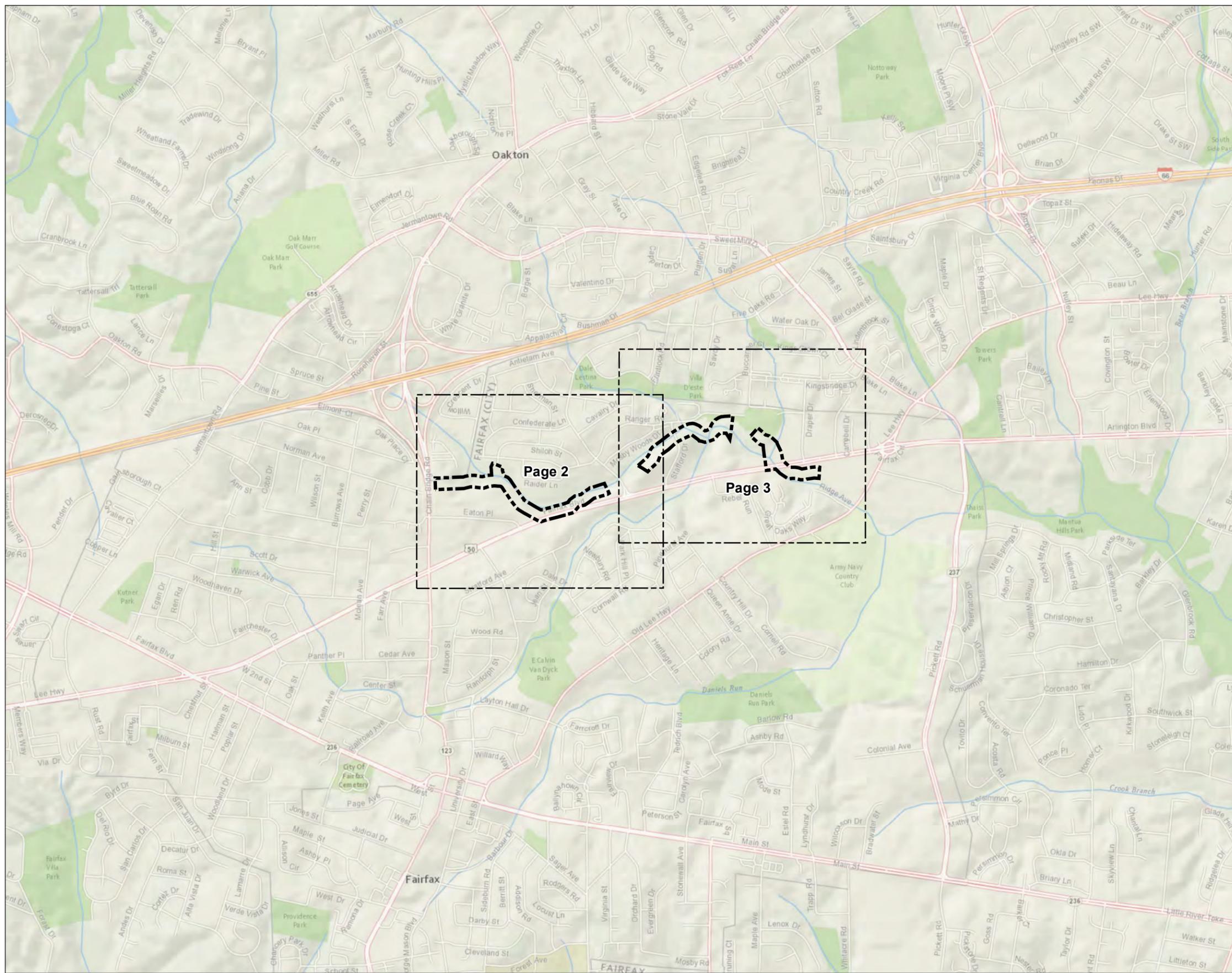
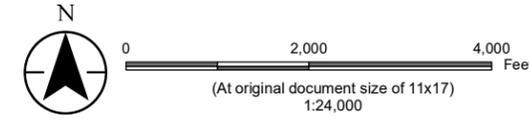


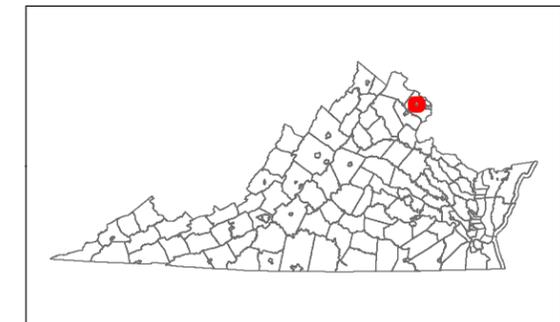
Figure No. **Appendix A**
Title
Base Map of Shovel Test Locations in the Study Area

Client/Project 2026271807
 City of Fairfax
 George T. Snyder Trail

Project Location City of Fairfax, Virginia
 Prepared by ECL on 2019-04-04
 TR by MGS on 2019-04-04
 IR by BSS on 2019-04-04



-  Study Area
-  Page Index



- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
 2. Data Sources: Stantec, ESRI
 3. Basemap © National Geographic



U:\2026271807\700 CADD\704 GIS\2026271807_c_base\map_index.mxd Revised: 2019-08-13 By: iberryman

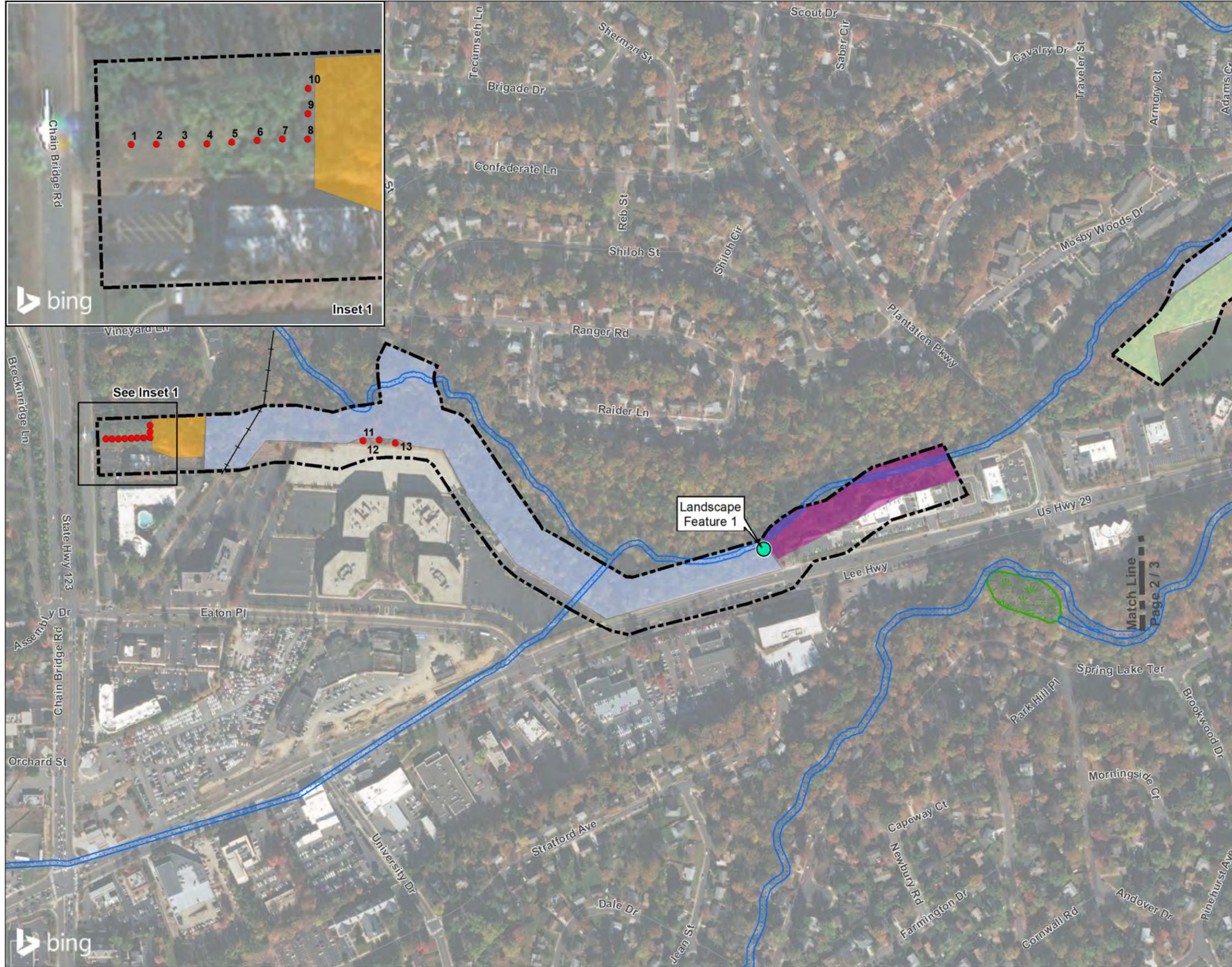
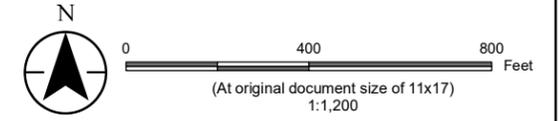


Figure No. **Appendix A**
 Title **Base Map of Shovel Test Locations in the Study Area**
 Client/Project City of Fairfax
 George T. Snyder Trail
 2026271807
 Project Location City of Fairfax, Virginia
 Prepared by LJB on 2019-07-25
 TR by ECL on 2019-08-19
 IR by BSS on 2019-08-20



- Negative Shovel Test Pit
- Abandoned Railroad Line
- ▭ Study Area
- ▭ NWI Wetland
- ▭ NWI Stream
- ▭ Steep Slope
- ▭ Low and Permanently Wet Area
- ▭ Active Tent Camp Sites
- ▭ Previously Disturbed



Notes
 1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
 2. Data Sources: Stantec, ESRI, NADS, NWI
 3. Orthoimagery © Bing Maps
 4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



U:\2026271807\700 CADD\704 GIS\2026271807_c_basemap.mxd Revised: 2019-08-20 By: lberlyman

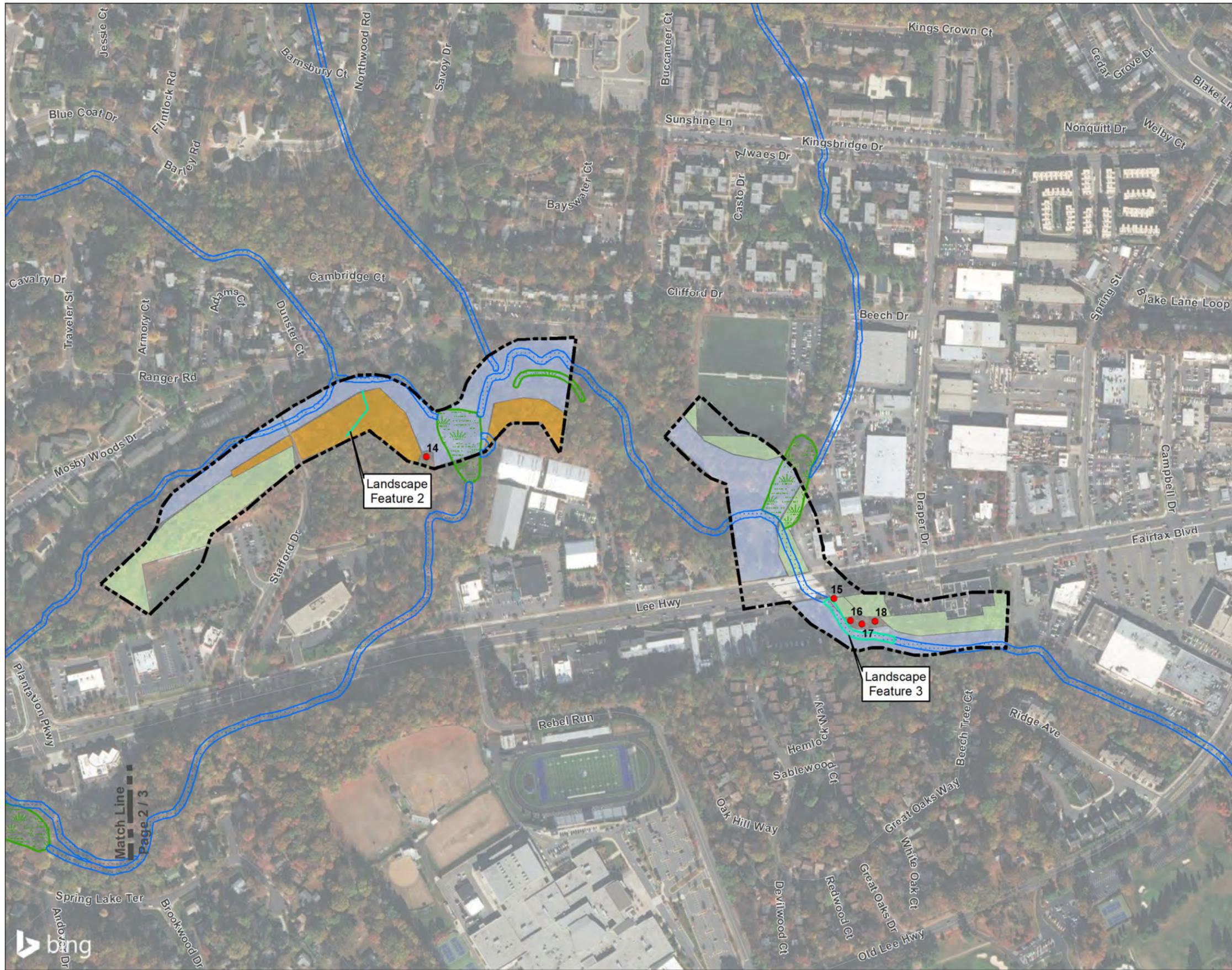
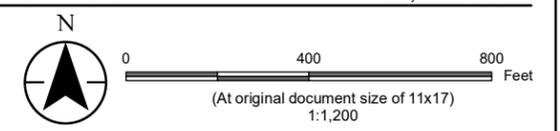


Figure No. **Appendix A**
 Title **Base Map of Shovel Test Locations in the Study Area**
 Client/Project **City of Fairfax** 2026271807
George T. Snyder Trail
 Project Location **City of Fairfax, Virginia** Prepared by LJB on 2019-07-25
 TR by ECL on 2019-08-19
 IR by BSS on 2019-08-20



- Negative Shovel Test Pit
- Abandoned Railroad Line
- Study Area
- NWI Wetland
- NWI Stream
- Steep Slope
- Low and Permanently Wet Area
- Previously Disturbed



Notes
 1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
 2. Data Sources: Stantec, ESRI, NADS, NWI
 3. Orthoimagery © Bing Maps
 4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



U:\2026271807\700 CADD\704 GIS\2026271807_c_basemap.mxd Revised: 2019-08-20 By: lbernyman

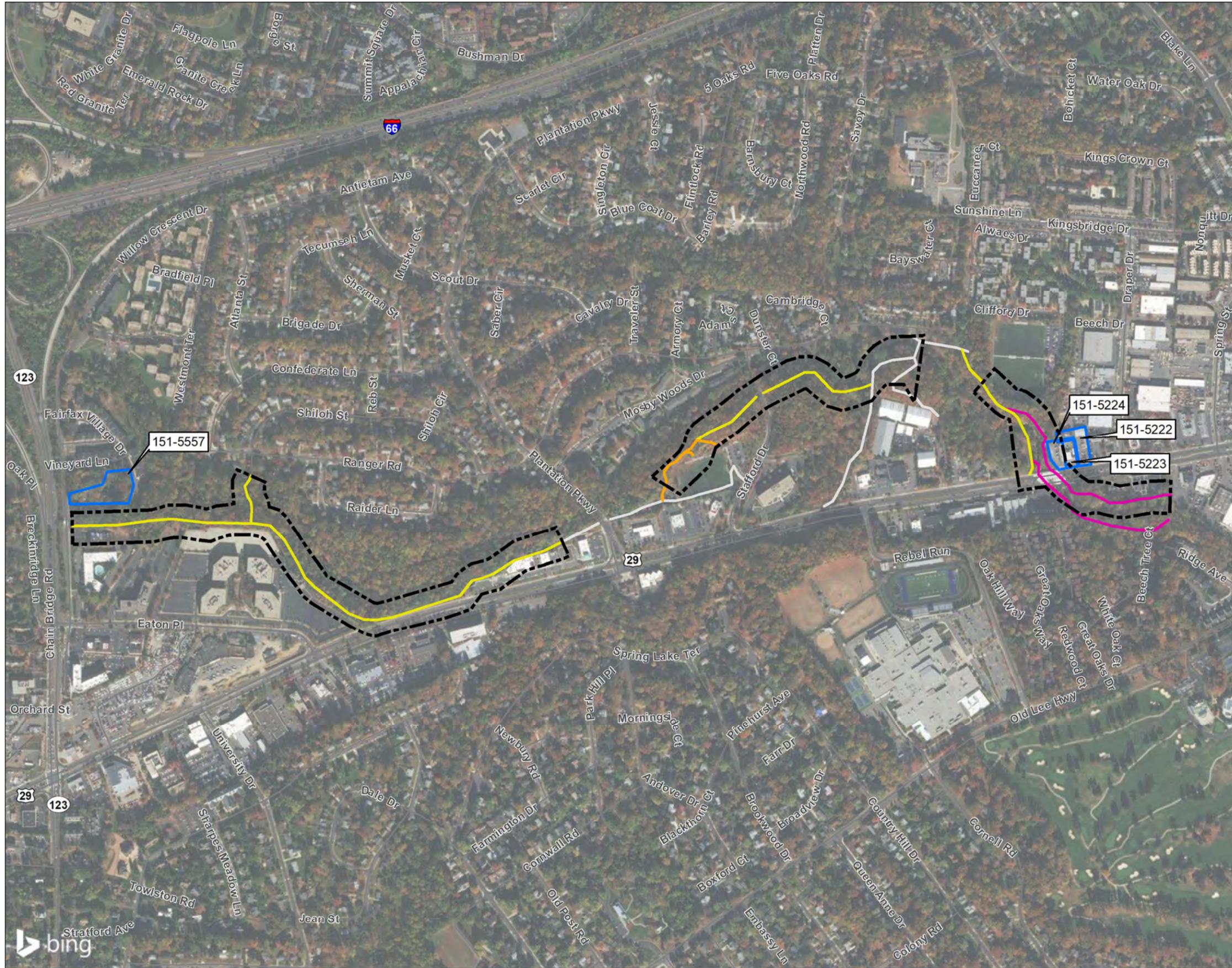
Match Line
 Page 2 / 3

**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

Appendix B SURVEYED ARCHITECTURAL RESOURCES

Appendix B SURVEYED ARCHITECTURAL RESOURCES

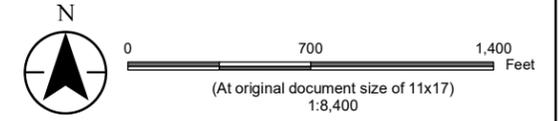




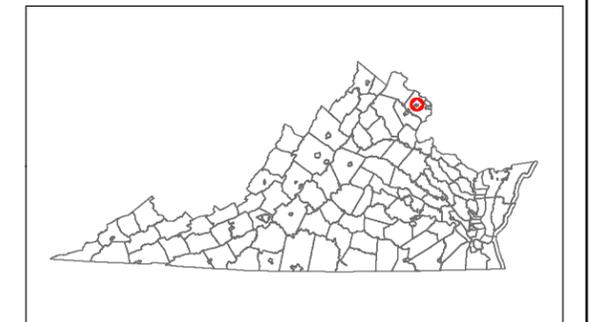
Title **Architectural Resource Map**

Client/Project **City of Fairfax** 2026271807
George T. Snyder Trail

Project Location **City of Fairfax, Virginia** Prepared by LJB on 2019-08-12
 TR by MGS on 2019-08-12
 IR by XXX on 2019-08-XX



- Study Area
- Architectural Resource
- Proposed George T. Snyder Trail - Section 1
- Planned George T. Snyder Trail - Section 2
- Planned George T. Snyder Trail - Section 3
- Existing Trail



Notes

1. Coordinate System: NAD 1983 StatePlane Virginia North FIPS 4501 Feet
2. Data Sources: Stantec, ESRI, NADS, City of Fairfax
3. Historic resource data provided by Virginia Department of Historic Resources, Virginia Cultural Resources Information System (VCRIS)
4. Background: Orthoimagery © Bing Maps
5. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation



U:\2026271807\700 CADD\704 GIS\2026271807_c_archi_baseemap.mxd Revised: 2019-08-13 By: lberlyman

**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

Appendix C V-CRIS FORMS

Appendix C V-CRIS FORMS



Property Information

Property Names

Name Explanation	Name
Function/Location	Dominion Autobody, 9772 Lee Highway
Function/Location	Gas Station, 9772 Lee Highway

Property Evaluation Status

Not Evaluated

Property Addresses

Current - 9772 Lee Highway
Alternate - 9772 Fairfax Boulevard

County/Independent City(s): Fairfax (Ind. City)

Incorporated Town(s): *No Data*

Zip Code(s): 22031

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): FAIRFAX

Additional Property Information

Architecture Setting: Suburban

Acreage: *No Data*

Site Description:

2004: Part of the commercial strip on Lee Highway, this gas station sits on a level paved and faces south. A modern garage abuts the rear of the building.

July 2019: The commercial building sits back from the road and is surrounded by a paved parking lot. A paved driveway leads from the parking area and runs north past the west end of the building. The lone secondary resource is a modern garage located north of the commercial building. The rear portion of the lot behind the garage has been enclosed by a chain link fence.

Surveyor Assessment:

2004: Built circa 1960, this commercial building illustrates the evolution of commercial strip development, commercial architecture, and the increasing suburbanization of the Washington, DC metropolitan area taking place in the City of Fairfax as well as the rest of Fairfax County and Northern Virginia post World War II (1941-1945).

July 2019: Although the resource is generally reflective of the mid-twentieth century development of Fairfax County, the resource lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered applicable in regards to the architectural survey. The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Fairfax County and does not contribute significantly to the county's growth. It is recommended therefore that the resource does not meet the criteria necessary for individual listing on the NRHP under Criterion A as the property was constructed in response to the general development of the area of Fairfax County. The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of Fairfax County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered to be of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B. The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. The property, instead, is typical of construction from its time period. It is therefore recommended that the property does not meet the criteria necessary for listing on the NRHP.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Commerce/Trade

Resource Type: Service Station

NR Resource Type: Building

Historic District Status: *No Data*

Date of Construction: 1965
Date Source: Local Records
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Architecture/Community Planning
Other ID Number: *No Data*
Architectural Style: Moderne
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: Other

Architectural Description:

2004: This one-story, five-bay concrete block commercial building sits on a solid concrete block foundation, is capped with a flat, parapet roof, and is clad in a metal veneer. Fenestration on the façade includes one-light fixed and three-light metal hopper windows. Additional features include two exterior-end brick stretcher chimneys.

July 2019: The resource is a one-story, five-bay commercial building with a flat, parapet roof. The exterior walls are concrete block with the facade clad in corrugated metal siding. The building also features six-over-six double-hung aluminum windows, three-light hopper windows, single-light fixed windows, and an exterior end brick flue. A one-story concrete block addition has been added to the rear of the building.

Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Solid/Continuous	Concrete	Block
Structural System and Exterior Treatment	Masonry	Concrete	Block
Chimneys	Exterior End	Brick	Flue
Roof	Flat	Unknown	<i>No Data</i>
Windows	Fixed	Metal	1-light
Windows	Other	Metal	Other
Windows	Double-hung	Aluminum	<i>No Data</i>

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Garage
Date of Construction: 1990
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Architecture/Community Planning, Commerce/Trade
Architectural Style: No discernible style
Form: *No Data*
Condition: Good
Threats to Resource: Other

Architectural Description:

2004: This one-story, two-bay metal garage is capped with a flat roof and is not contemporaneous with the gas station.

July 2019: The garage is a large one-story, two-bay building with a side gable roof. The exterior is clad in metal and roof is clad in V-crimp metal.

Number of Stories: 1

Exterior Components

Component	Component Type	Material	Material Treatment
Structural System and Exterior Treatment	Wood Frame	Metal	Siding

Historic District Information

Historic District Name: *No Data*

Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Sandra DeChard
Organization/Company: Stantec 2034
Photographic Media: Digital
Survey Date: 7/19/2019
Dhr Library Report Number: *No Data*
Project Staff/Notes:
No Data

Project Bibliographic Information:

A Phase I Cultural Resources Investigation of Approximately 42.41 Acres Associated with the George T. Snyder Trail Project from Chain Bridge Road to the Wilcoxon Trail, Fairfax County, Virginia.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: EHT Tracerics, Inc., PK
Organization/Company: EHT Tracerics, Inc.
Photographic Media: Film
Survey Date: 5/1/2004
Dhr Library Report Number: FX-404
Project Staff/Notes:
Laura Trieschmann
Historic Property Survey Update of the City of Fairfax, Virginia
2004
Prepared by
EHT Tracerics, Inc., Washington, D.C. -- Laura V. Trieschmann, Principal Investigator
for The City of Fairfax, Virginia Office of Historic Resources

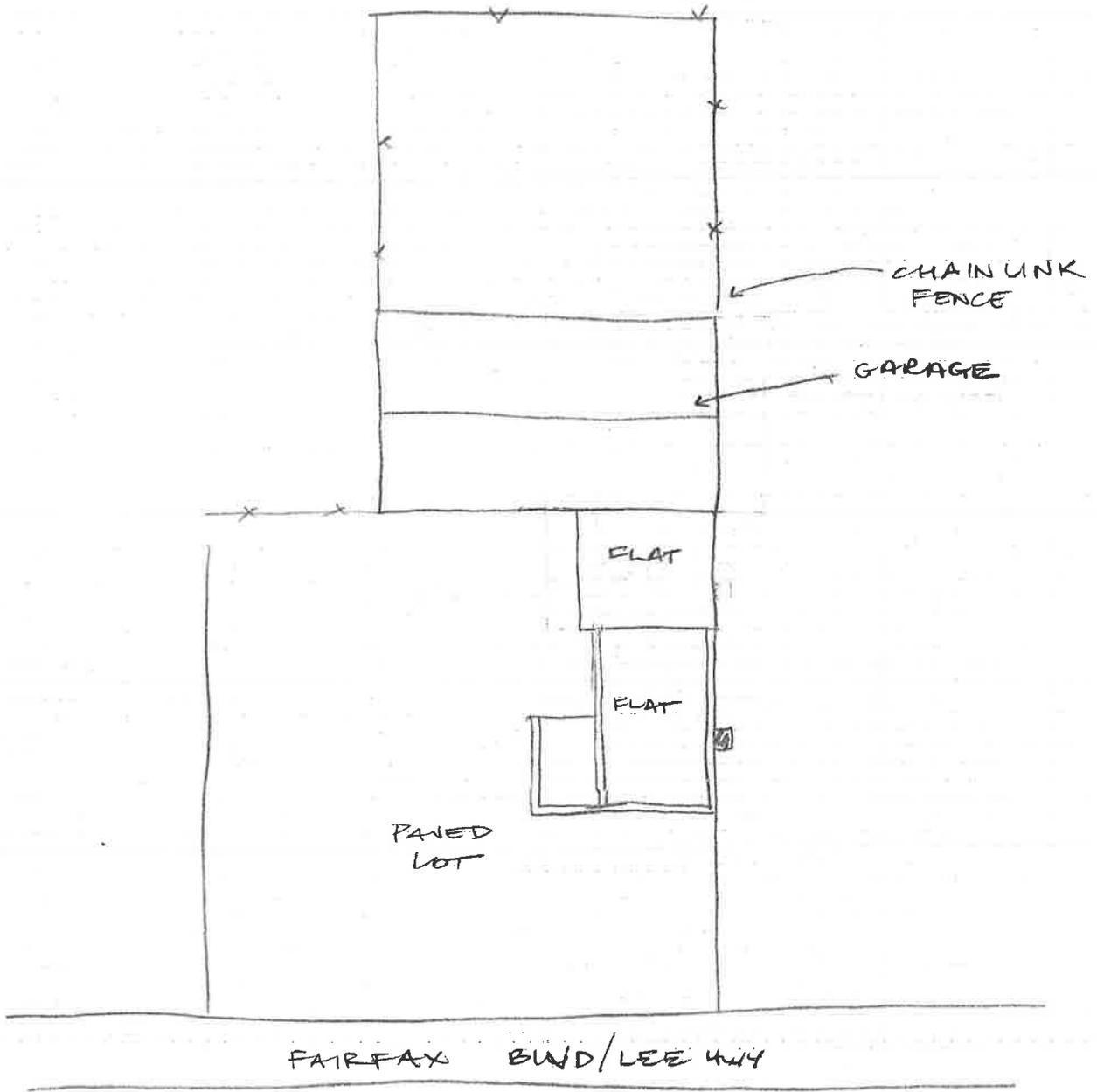
Bibliographic Information

Bibliography:

Fairfax County Online Tax Assessment Records

Property Notes:

No Data



151-5222
9772 FAIRFAX BWD/LEE HWY
FAIRFAX, VA
7.19.19 EAC
NTS AN

Property Information

Property Names

Name Explanation	Name
Function/Location	Commercial Building, 9780 Lee Highway
Function/Location	Town and Country Animal Hospital, 9780 Lee Highway

Property Evaluation Status

Not Evaluated

Property Addresses

Current - 9780 Lee Highway Fairfax Boulevard

County/Independent City(s): Fairfax (Ind. City)

Incorporated Town(s): *No Data*

Zip Code(s): 22031

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): FAIRFAX

Additional Property Information

Architecture Setting: Suburban

Acreage: *No Data*

Site Description:

2004: Part of the commercial strip on Lee Highway, this commercial building sits on a level paved and faces south.

July 2019: The building sits on a level lot with a paved parking lot in front. A portion of the rear of the property is enclosed by a wood privacy fence. Areas of trees are located to the northwest of the building. No secondary resources were visible at the time of the survey.

Surveyor Assessment:

2004: Built circa 1935-1955, these commercial buildings illustrate the evolution of commercial strip development, commercial architecture, and the increasing suburbanization of the Washington, DC metropolitan area taking place in the City of Fairfax as well as the rest of Fairfax County and Northern Virginia post World War II (1941-1945).

July 2019: Although the resource is generally reflective of the mid-twentieth century development of Fairfax County, the resource lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it is recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered applicable in regards to the architectural survey. The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Fairfax County and does not contribute significantly to the county's growth. It is recommended therefore that the resource does not meet the criteria necessary for individual listing on the NRHP under Criterion A as the property was constructed in response to the general development of the area of Fairfax County. The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of Fairfax County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered to be of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B. The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. The property, instead, is typical of construction from its time period. It is therefore recommended that the property does not meet the criteria necessary for listing on the NRHP.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Commerce/Trade

Resource Type: Commercial Building

NR Resource Type: Building

Historic District Status: *No Data*

Date of Construction: 1949

Date Source: Local Records
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Architecture/Community Planning, Commerce/Trade
Other ID Number: *No Data*
Architectural Style: Commercial Style
Form: *No Data*
Number of Stories: 1.5
Condition: Good
Threats to Resource: Other

Architectural Description:

2004: One-story high and three bays wide, this brick commercial building sits on a concrete block foundation, is constructed of concrete block clad in a brick veneer, and is capped by a side-gable, metal, standing seam roof. Fenestration on the front elevation includes a bay window and two 6/6 double-hung dormer windows. The left bay of the building contains a roll-up garage door allowing access to the rear of the building. Additional features of the building include a wood door surround with fluted pilasters and a scalloped cornice. The original central interior chimney has subsequently been removed.

July 2019: The resource is a one-story, three-bay concrete block building, which appears to have originally been used as a car wash. The building has been raised to one-and-a-half-stories with a Cape Cod-style addition. The roof is clad in standing seamed metal.

The building remains relatively unaltered since the previous survey with the exception of the replacement of the six-over-six double-hung windows in the gable dormers with one-over-one double-hung vinyl windows. Not noted in the previous survey was the one-story flat roof ell with brick flue.

Exterior Components

Component	Component Type	Material	Material Treatment
Roof	Parapet	Unknown	<i>No Data</i>
Windows	Sash, Double-Hung	Wood	6/6
Foundation	Solid/Continuous	Concrete	Block
Windows	Bay	Wood	Multiple-light
Structural System and Exterior Treatment	Masonry	Brick	Veneer
Roof	Gable, Side	Metal	Standing Seam
Windows	Double-hung	Vinyl	<i>No Data</i>
Structural System and Exterior Treatment	Masonry	Concrete	Block

Secondary Resource Information

Secondary Resource #1

Resource Category: Commerce/Trade
Resource Type: Commercial Building
Date of Construction: 1955
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Architecture/Community Planning, Commerce/Trade
Architectural Style: Commercial Style
Form: *No Data*
Condition: Good
Threats to Resource: Other

Architectural Description:

2004: This one-story, six-bay commercial building sits on a concrete block foundation, is constructed of concrete block clad in a brick veneer, and is capped with a flat parapet roof. A metal cornice and bay windows are not original to the building. Original transom windows have been covered or replaced with plywood.

July 2019: The resource is a one-story, six-bay commercial building with a flat, parapet roof. The building features modern metal entry doors and vinyl bay windows. The building remains relatively unaltered since the previous survey.

Number of Stories: 1

Exterior Components

Component	Component Type	Material	Material Treatment
Structural System and Exterior Treatment	Masonry	Concrete	Block
Structural System and Exterior Treatment	Masonry	Brick	Veneer

Exterior Treatment

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Sandra DeChard
Organization/Company: Stantec 2034
Photographic Media: Digital
Survey Date: 7/19/2019
Dhr Library Report Number: *No Data*

Project Staff/Notes:
No Data

Project Bibliographic Information:

A Phase I Cultural Resources Investigation of Approximately 42.41 Acres Associated with the George T. Snyder Trail Project from Chain Bridge Road to the Wilcoxon Trail, Fairfax County, Virginia.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: EHT Tracerics, Inc., PK
Organization/Company: Unknown (DSS)
Photographic Media: *No Data*
Survey Date: 5/1/2004
Dhr Library Report Number: *No Data*

Project Staff/Notes:
No Data

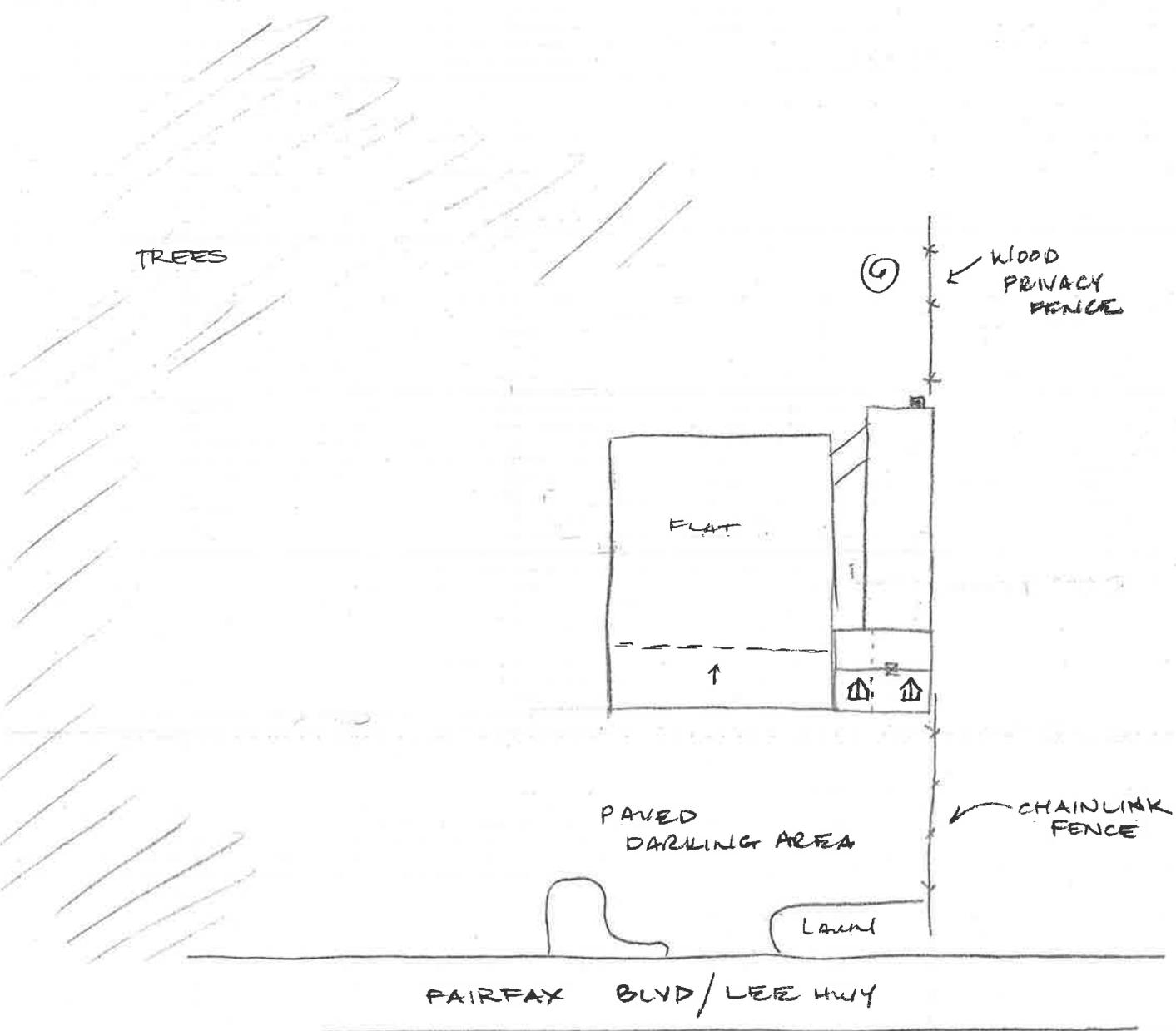
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



151-5223
 9780 FAIRFAX BLVD / LEE HIGHWAY
 FAIRFAX, VA
 719.19 EAC
 NTS ↑ N

Property Information

Property Names

Name Explanation	Name
Function/Location	Circle Glass, 9788 Lee Highway
Function/Location	Commercial Building, 9788 Lee Highway

Property Evaluation Status

Not Evaluated

Property Addresses

Current - 9788 Lee Highway
 Alternate - 9788 Fairfax Boulevard

County/Independent City(s): Fairfax (Ind. City)

Incorporated Town(s): *No Data*

Zip Code(s): 22031

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): FAIRFAX

Additional Property Information

Architecture Setting: Suburban

Acreage: *No Data*

Site Description:

2004: Part of the commercial strip on Lee Highway, this commercial building sits on a level paved lot and faces south.

July 2019: The commercial building sit on level lot and is bounded by paved parking lot on the west and south with trees beyond to the west and north. A poured concrete driveway provides access to the parking area from Lee Highway. There were no visible secondary resources on the property at the time of the survey.

Surveyor Assessment:

2004: Built circa 1955, this commercial building illustrates the evolution of commercial strip development, commercial architecture, and the increasing suburbanization of the Washington, DC metropolitan area taking place in the City of Fairfax as well as the rest of Fairfax County and Northern Virginia post World War II (1941-1945).

July 2019: Although the resource is generally reflective of the late nineteenth century development of Fairfax County, the resource lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered applicable in regards to the architectural survey. The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Fairfax County and does not contribute significantly to the county's growth. It is recommended therefore that the resource does not meet the criteria necessary for individual listing on the NRHP under Criterion A as the property was constructed in response to the general development of the area of Fairfax County. The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of Fairfax County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered to be of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B. The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. The property, instead, is typical of construction from its time period. It is therefore recommended that the property does not meet the criteria necessary for listing on the NRHP.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Commerce/Trade

Resource Type: Commercial Building

NR Resource Type: Building

Historic District Status: *No Data*

Date of Construction: 1951

Date Source: Local Records
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Architecture/Community Planning, Commerce/Trade
Other ID Number: *No Data*
Architectural Style: Commercial Style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: Other, Public Utility Expansion

Architectural Description:

2004: This one-story, three-bay concrete block commercial building sits on a concrete block foundation and is capped with a flat roof and the façade is clad with a brick veneer. Fenestration on the front façade includes a one-light, fixed window. Other features include rowlock sills and a metal cornice.

July 2019: The resource is a one-story, three-bay commercial building with a flat roof. The building remains relatively unaltered since the previous survey. Architectural features not noted in the previous survey description above include commercial-style windows on the facade, a retractable bay door on the west elevation, and an interior brick flue.

Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Solid/Continuous	Concrete	Block
Roof	Flat	Unknown	<i>No Data</i>
Structural System and Exterior Treatment	Masonry	Concrete	Block
Windows	Fixed	Wood	1-light
Structural System and Exterior Treatment	Masonry	Brick	Veneer

Secondary Resource Information

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Sandra DeChard
Organization/Company: Stantec 2034
Photographic Media: Digital
Survey Date: 7/19/2019
Dhr Library Report Number: *No Data*
Project Staff/Notes:
No Data

Project Bibliographic Information:

A Phase I Cultural Resources Investigation of Approximately 42.41 Acres Associated with the George T. Snyder Trail Project from Chain Bridge Road to the Wilcoxon Trail, Fairfax County, Virginia.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*

Investigator:	EHT Tracerics, Inc., PK
Organization/Company:	Unknown (DSS)
Photographic Media:	<i>No Data</i>
Survey Date:	5/1/2004
Dhr Library Report Number:	<i>No Data</i>
Project Staff/Notes:	<i>No Data</i>

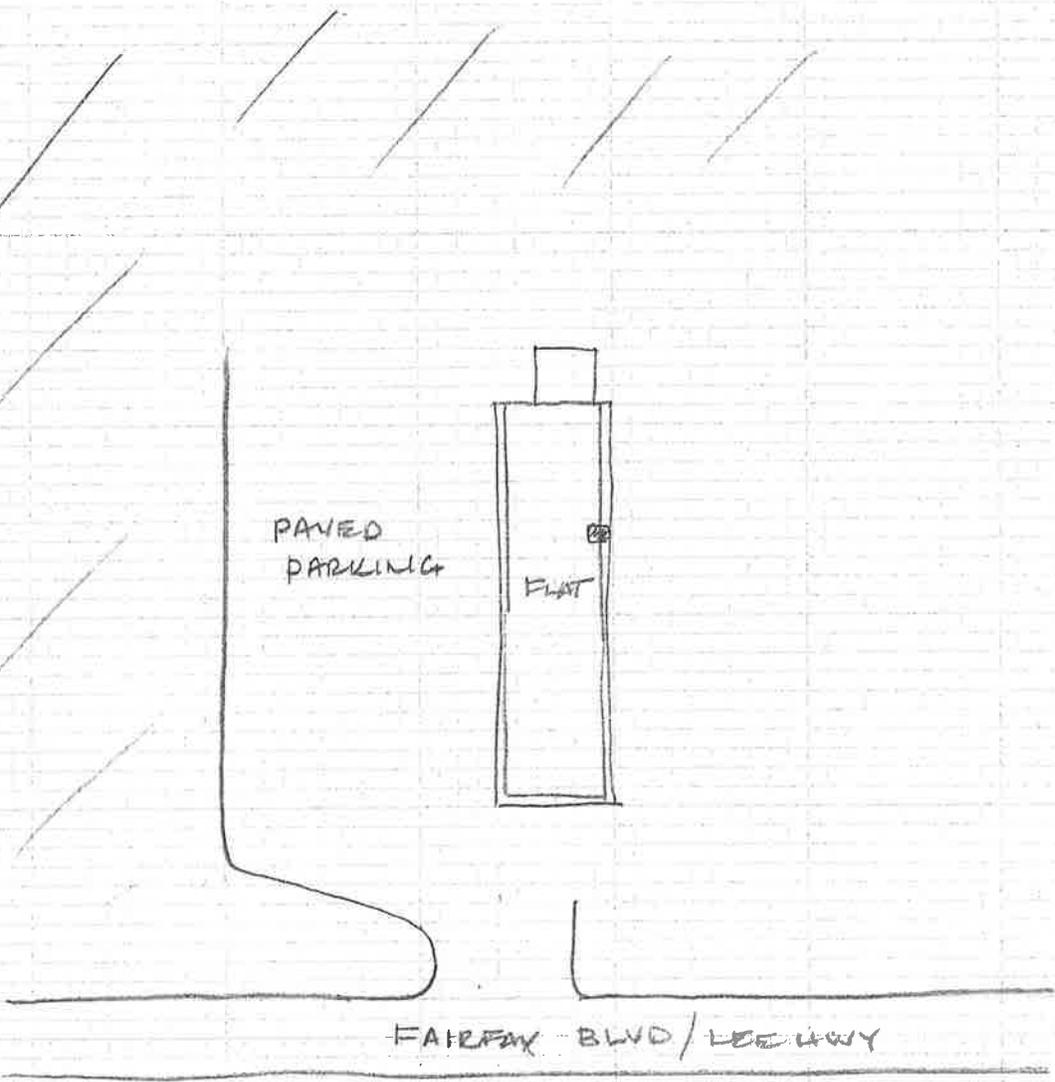
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



151-5004
9788 LEE HWY / FAIRFAX
BLVD
FAIRFAX CO., VA
7/19/19
EAL
NOT TO SCALE



Property Information

Property Names

Name Explanation	Name
Function/Location	House, 3401 Chain Bridge Road

Property Evaluation Status

Not Evaluated

Property Addresses

Current - 3401 Chain Bridge Road

County/Independent City(s):	Fairfax (County), Fairfax (Ind. City)
Incorporated Town(s):	Oakton
Zip Code(s):	22030
Magisterial District(s):	<i>No Data</i>
Tax Parcel(s):	<i>No Data</i>
USGS Quad(s):	FAIRFAX

Additional Property Information

Architecture Setting: Suburban

Acreage: *No Data*

Site Description:

July 2019: The dwelling sits back from the road and is surrounded by a lawn with a picket fence enclosing the rear and side yard. A paved driveway leads off Chain Bridge Road and runs east past the south end of the dwelling. The lot is heavily wooded with a tree line obscuring the dwelling from the road. The visible architectural resource on the property at the time of the survey was a playhouse.

Surveyor Assessment:

July 2019: Although the resource is generally reflective of the late nineteenth century development of Fairfax County, the resource lacks direct and/or important associations under Criterion A, B, or C for historical significance necessary for listing on the NRHP. As such, it recommended that the resource is not individually eligible for listing on the NRHP. Criterion D, typically associated with archaeological sites, was not considered applicable in regards to the architectural survey. The resource, under NRHP Criterion A does not individually express any distinctive themes relating to the development of Fairfax County and does not contribute significantly to the county's growth. It is recommended therefore that the resource does not meet the criteria necessary for individual listing on the NRHP under Criterion A as the property was constructed in response to the general development of the area of Fairfax County. The resource surveyed does not appear to be associated with any known individuals who made significant contributions to the historical development of Fairfax County. Although limited information about the occupants of the property is known, it does not appear that the occupants would be considered to be of transcendent importance to the Nation's history and therefore the resource does not meet the criteria necessary for listing on the NRHP under Criterion B. The resource does not appear to have significant architectural integrity for listing on the NRHP under Criterion C. The resource is utilitarian in design and does not embody distinctive characteristics of a type, period, or method of construction nor does the building represent the work of a master. The property, instead, is typical of construction from its time period. It is therefore recommended that the property does not meet the criteria necessary for listing on the NRHP.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category:	Domestic
Resource Type:	Single Dwelling
NR Resource Type:	Building
Historic District Status:	<i>No Data</i>
Date of Construction:	Ca 1870
Date Source:	Site Visit
Historic Time Period:	Reconstruction and Growth (1866 - 1916)
Historic Context(s):	Domestic
Other ID Number:	<i>No Data</i>
Architectural Style:	Vernacular

Form: *No Data*
Number of Stories: 2.5
Condition: Good
Threats to Resource: Other

Architectural Description:

July 2019: The resource is a two-and-a-half-story, three-bay dwelling with a side gable roof. The exterior walls are clad in weatherboards and the roof in asphalt shingles. Across the facade is a one-story partially enclosed flat roof front porch supported by wood posts. Two gable roof dormers project from the front roof slope. The building also features a two-story gable roof ell with a secondary entry covered by a gabled portico supported by square wood posts and a one-story gable-roofed wing off the ell. Additional architectural features include one-over-one double-hung vinyl sash windows, six-over-six double-hung wood sash windows on the dormers, an exterior end brick chimney, and gable end returns.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Exterior End	Brick	Not Visible
Foundation	Not Visible	Unknown	Not Visible
Porch	1-Story Full-Width	Vinyl	Screened/Enclosed
Structural System and Exterior Treatment	Wood Frame	Wood	Weatherboard
Windows	Double-hung	Wood	<i>No Data</i>
Windows	Double-hung	Vinyl	<i>No Data</i>
Roof	Side Gable	Asphalt	<i>No Data</i>

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Outbuilding, Domestic
Date of Construction: 2010Ca
Date Source: Plaque/Sign
Historic Time Period: Post Cold War (1992 - Present)
Historic Context(s): Domestic
Architectural Style: No discernible style
Form: *No Data*
Condition: Good
Threats to Resource: Other

Architectural Description:

July 2019: The resource is a one-story, three-bay playhouse with a side gable roof. The exterior walls are clad in weatherboard and the roof in asphalt shingles. The building also features a three-bay shed roof front porch supported by square wood posts.

Number of Stories: 1

Exterior Components

Component	Component Type	Material	Material Treatment
Structural System and Exterior Treatment	Wood Frame	Wood	Weatherboard

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Sandra DeChard
Organization/Company: Stantec 2034
Photographic Media: Digital
Survey Date: 7/19/2019
Dhr Library Report Number: *No Data*

Project Staff/Notes:

No Data

Project Bibliographic Information:

A Phase I Cultural Resources Investigation of Approximately 42.41 Acres Associated with the George T. Snyder Trail Project from Chain Bridge Road to the Wilcoxon Trail, Fairfax County, Virginia.

Bibliographic Information

Bibliography:

Fairfax County Online Tax Assessment Records

Property Notes:

No Data

WOODS

PLAY-HOUSE



FLAT

FLAT

FLAT

FLAT

PICKET FENCE

WOODS

TREES

PAVED DRIVE

TREES

(OLD) CHAIN BRIDGE RD

CHAIN BRIDGE RD (RT 123)

151-5557

3401 CHAINBRIDGE RD

FAIRFAX CO., VA

2.19.19

EAC

NTS



**A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 42.41 ACRES
ASSOCIATED WITH THE GEORGE T. SNYDER TRAIL PROJECT FROM CHAIN BRIDGE ROAD TO
THE WILCOXON TRAIL, FAIRFAX COUNTY, VIRGINIA**

Appendix D KEY PERSONNEL RESUMES

Appendix D KEY PERSONNEL RESUMES



Brynn is the Program Manager/Senior Principal Investigator for Cultural Resources in Stantec's Williamsburg, Virginia, office. She has over 15 years of experience in cultural resources management. Brynn meets the Secretary of the Interior's standards and guidelines for a professional archaeologist. She has served as a Principal Investigator and Project Archaeologist on numerous transportation and energy-related projects as well as private development projects.

Brynn manages in-house technical staff, supervises technical document preparation, and provides quality control and peer review for cultural resources studies. Her expertise includes all phases of cultural resource management (archaeological assessments and Phase I, II, and III excavations) in compliance with local, state, and federal laws and regulations. Brynn's experience includes managerial tasks associated with all aspects of cultural resource management projects such as consultation with and representation of clients before state and national review agencies, writing and editing technical reports, preparing and managing project budgets, and developing and implementing archaeological research designs.

Brynn also has experience in the processing and analysis of artifact collections with special interest in Colonial-era ceramics and lithic analysis and the development and production of interpretive materials including pamphlets and exhibits.

EDUCATION

Master of Arts, Anthropology, University of Nevada, Las Vegas, Nevada, 2009

Bachelor of Arts, Anthropology, Washington College, Chestertown, Maryland, 2004

CERTIFICATIONS & TRAINING

OSHA Excavation Safety: Satisfies 29 CFR 1926.650

OSHA Confined Space Safety: Satisfies 29 CFR 1910.246, 29 CFR 1926.1001, 29 CFR 1915.1001

PROJECT EXPERIENCE

Ore Bank Undergrounding Project, Rockingham County, Virginia

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with the Civil War Trust and will author the technical report upon completion of on-going investigations.

Abberly at South Campus Development, Stafford County, Virginia (Principal Investigator)

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. She directed pre-fieldwork planning, managed field personnel, and participated in Phase II evaluation of Site 44ST1141. Brynn synthesized data collected during evaluation and served as the lead author of the resulting technical report.

Data Recovery of Sites 44PW1305 and 44PW1306 for the Eagles Pointe Landbay A Section 2 Development Project, Prince William County, Virginia

Brynn is serving as Principal Investigator for this on-going project. She developed the scope of work and budget prior to the awarding of the project. Brynn coordinated with the client and the County Archaeologist on the Data Recovery Plan she developed. She has managed field personnel and coordinated with the VDHR to procure both an Anticipatory Permit and a Burial Permit for the excavation of a single burial identified within Site 44PW1306. Brynn coordinated the placement of public notice as part of the Burial Permit and gave a presentation concerning the burial feature to the Prince William County Historical Commission, which served as a public meeting as a result of responses received for the said public notice. Brynn is currently coordinating the reburial of the recovered remains with a local cemetery and will author the resulting technical report.

* denotes projects completed with other firms

Data Recovery of Site 44JC0662, James City County, Virginia

Brynn served as Principal Investigator, directing pre-fieldwork planning and overseeing the field effort. Brynn participated in feature excavation. She coordinated the field effort with the client as well as site inspectors and was responsible for coordinating with local Native American tribal representatives with an interest in the project. Brynn participated in shovel testing and monitoring activities, synthesized the data collected during the project, and served as lead author on the resulting technical report.

Poplar Grove National Cemetery Archaeological Investigations and Monitoring, Dinwiddie County, Virginia

Brynn served as Principal Investigator, coordinating with the NPS and field staff. The NPS conducted rehabilitation at the cemetery, including the replacement of 5,700 headstones, rehabilitation of the Superintendent's lodge, restoration of site furniture and signs, replacement of the flagpole and site utilities, preservation of the cemetery wall, and rehabilitation of the landscape. Brynn participated in shovel testing and monitoring activities, synthesized the data collected during the project, and served as lead author on the resulting technical report.

Berkmar Data Recovery, Charlottesville, Virginia

Brynn served as Principal Investigator, assisting in the development of a scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with client representatives, conducting excavations, compiling and interpreting fieldwork results, on-going lithic analysis, and is in the process of co-authoring the resulting technical report.

Trowbridge-Pantego Transmission Line Project, Washington and Beaufort Counties, North Carolina

Brynn served as Principal Investigator, coordinating with Project Managers and field personnel. Brynn directed pre-fieldwork planning and was responsible for compiling and interpreting fieldwork results. She is currently in the process of co-authored the resulting technical report.

Fredericksburg Courthouse Project, City of Fredericksburg, Virginia

Brynn served as Principal Investigator, directing pre-fieldwork planning and managing field personnel during Phase I, Phase II, and Phase III investigations of eighteenth-century through nineteenth-century deposits. She also participated in fieldwork, synthesized data collected during all three phases of work, and served as the lead author of the resulting technical report. She helped develop and produce a public exhibit of artifacts on display in the new Courthouse.

Dominion Virginia Power Splice Pit within the Colonial National Historic Park, James City County, Virginia

Brynn served as Principal Investigator, leading the field effort and interpreting data post-field effort. She also authored the resulting technical report.

Mosby Substation (Laydown Yard and Storm Water Management Basin Area) Project, Loudoun County, Virginia

Brynn served as Principal Investigator, managing the field effort and interpreting data post-field effort. She also authored the resulting technical report.

Goose Creek to Loudoun 500kV Transmission Line Improvement Project, Loudoun County, Virginia

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for coordinating with client representatives, compiling fieldwork results, interpreting sites, entering site data into V-CRIS, and co-authoring the resulting technical report.

Warren County Power Station Proposed Auxiliary Parking Lot, Warren County, Virginia

Brynn served as Principal Investigator, developing a proposed scope of work and budget prior to the awarding of the project. Brynn directed pre-fieldwork planning and managed field personnel. She was responsible for compiling fieldwork results and authoring the resulting technical report.

Mr. Sadler has over 16 years of professional experience as an archaeologist. He has excavated on sites across Virginia, including Jamestown, as well as Greece, Bermuda, Georgia and Maryland, on both academic and professional projects. He has over a decade of experience as the primary field archaeologist supervising excavations at the Phase I, II and III levels involving the prehistoric and Euro-American history of the Chesapeake region. His duties at have included Phase I and II evaluations as a field technician and Field Supervisor. He has also assisted Senior Principal Investigators in report writing, management summaries, and historic research. Donnie has experience in historic ceramic analysis, 18th-century material culture analysis, managing archaeological collections, and database management.

EDUCATION

Master of Arts, Historical Archaeology, College of William and Mary, Williamsburg, Virginia, 2006

Bachelor of Arts, Anthropology with Honors, minor in History, College of William & Mary, Williamsburg, Virginia, 2001

CERTIFICATIONS & TRAINING

HAZWOPER 40 hour Certificate, Statewide, Virginia, 2018

Confined Space Awareness Training, Statewide, Virginia, 2016

RPA certified course "Metal Detecting for the Archaeologist", Nationwide, US, 2015

PROJECT EXPERIENCE

Data Recovery of Site 44JC0664, James City County, Virginia

Donald oversaw the data recovery effort for Site 44JC0664, a Colonial era domestic site with a Civil War encampment component. Donald managed all field staff, monitored mechanical excavations, participated in feature excavation, and participated in photodocumentation of the site as well as the production of scale drawings. The site was situated within an active construction zone and Donald coordinated with on-site contractors and ensured that all staff followed safety protocol. Donald is currently synthesizing the recovered data and writing a detailed technical report describing the results of the investigation.

Documentary Research for the Sammons Cemetery, Albemarle County, Virginia

Documentary Research for the Sammons Cemetery. Report on file at the Virginia Department of Transportation (VDOT) in Richmond, Virginia.

City of Fredericksburg - Phase I Archaeological Survey, Phase II Evaluation, and Phase III Data Recovery for the Proposed Courthouse Facility at the Intersection of Princess Anne and Charlotte Streets, (Southeastern Quadrant of Block 42), City of Fredericksburg, Virginia

Three-stage archaeological investigation of a historic domestic site in the City of Fredericksburg in advance of the construction of a new Courthouse facility. The project resulted in the identification of 18th and 19th century domestic deposits including a Civil War period cellar dating to 1863. Work included archaeological fieldwork, extensive historic research, site interpretation, and final reporting. Also included was the development of an interpretive display featuring the sites to satisfy public participation requirements and highlight the significance of the lot and the site. Responsibilities included field supervision and direction for all fieldwork, field notes, and reporting.

Phase IA/Stage I Analysis for the Proposed Dominion Virginia Power Warrenton-Wheeler-Gainesville 230 kV Transmission Line Project, Fauquier and Prince William Counties, Virginia

Donald managed a cultural resources crew for the completion of a Phase IA/Stage I Cultural Resources Assessment for the proposed ~ 20 mile Warrenton-Wheeler-Gainesville 230 kV Transmission line project.

A Phase I Cultural Resources Survey of Approximately 9.4 Miles of the Proposed Dominion Virginia Power Dahlgren 230 kV Transmission Line*, King George County, Virginia

Donald and crew conducted a Phase I Cultural Resources Survey of a proposed Dominion Power 230kV utility line in King George County, Virginia. The proposed route of the Dahlgren line covers a distance of approximately 9.4 miles. Work included archaeological and architectural survey for the APE defined by the project for the entire corridor.

* denotes projects completed with other firms

A Phase I Cultural Resources Survey of Approximately 39.0 Miles of Proposed Improvements to the Dominion Virginia Power 500 kV Transmission Line from the Lexington Substation to the Dooms Substation, Augusta and Rockbridge Counties, Virginia

Donald and crew conducted a Phase I Cultural Resources Survey of a proposed Dominion Power 230kV utility line in August and Rockbridge counties, Virginia. The proposed route of the Lexington to Doom line covers a distance of approximately 39 miles. Work included archaeological and architectural survey for the APE defined by the project for the entire corridor.

Benns Church Substation Rebuild Project, Isle of Wight County, Virginia

Donald directed the field effort for a Phase I survey of approximately 3.332 acres associated with the Dominion Virginia Power Benns Church Substation Rebuild Project and Phase II evaluation of Site 44IW0275, a Woodland period temporary camp site. Responsibilities included directing field staff in systematic shovel testing and test unit excavation, photodocumentation of the project APE and Site 44IW0275, and the production of scale drawings associated with the Phase II evaluation effort.

Dahlgren 230 kV Transmission Line Project, King George County, Virginia

Mr. Sadler led the field effort for a Phase I survey of approximately 9.4 miles associated with the Dominion Virginia Power Dahlgren 230 kV Transmission line project in King George County, Virginia. Mr. Sadler was responsible for crew management, coordination with local landowners, systematic shovel testing, and recordation.

VDOT - Archaeological Survey for Proposed Improvements to I-64, Segment 2, James City and York Counties, Virginia

Archaeological survey support for proposed improvements to Segment 2 of the I-64 improvement project in James City and York Counties Virginia. The project included archaeological survey of approximately 7 miles of proposed roadway improvements and expansion. The project included traditional archaeological survey as well as metal detecting for military related resources. Responsibilities included field supervision and direction for all fieldwork, field notes, and reporting.

US Coast Guard Training Facility, Yorktown – Archaeological Monitoring for Water Line Replacement*, Yorktown, Virginia

As subconsultant to TetraTech Tesoro, Donald provided archaeological monitoring for the replacement of a water line supporting the USCG TRACEN facility. The water line crossed the NRHP-listed Yorktown National Battlefield. Services included daily on-site monitoring, recordation of soil profiles and conditions and documentation of archaeological deposits.

Fort Monroe – On-call Archaeological Support Services, Fort Monroe, Hampton, Virginia

Donald provided on-call archaeological support services to the Fort Monroe Authority, Hampton, Virginia. Fort Monroe is a former Army Base a portion of which was transferred to the Commonwealth of Virginia in 2011. Services provided included emergency response services, Phase I level archaeological survey, archaeological monitoring, and reporting.

Cemetery Verification and Delineation Study for Site 44KG0223 along the Proposed Dominion Virginia Power Dahlgren 230 kV Transmission Line, King George County, Virginia

Donald led the field effort, monitoring mechanical excavations to identify potential grave shaft features and overseeing the metal detecting effort. The project proved that the site did not extend into the proposed transmission line right-of-way.

Cemetery Removal and Reburial at the Abberly at Stafford Development, Stafford County, Virginia

Donald assisted with a cemetery documentation and excavation of 29 burial features at Abberly in Stafford County, Virginia. The project included documentation, removal and reburial of the cemetery. Responsibilities included directing the field effort and documenting and removing burial features.

Cemetery Recovery for the Abberly at Stafford Development, Stafford County, Virginia

Donald led the field effort, monitoring mechanical excavations to identify potential grave shaft features and overseeing and participating in the archaeological recovery of human remains. Donald managed field staff during the recovery effort and assisted with the reburial effort.

* denotes projects completed with other firms

Ms. Sandra DeChard is an Architectural Historian with over 25 years of experience in cultural resources as an architectural historian and archaeologist working in Virginia, North Carolina, Georgia, Pennsylvania, Delaware, New Jersey, Maryland, Arizona, California, Washington, Oregon, Illinois, Massachusetts, and New Hampshire. Her experience includes large- and small-scale architectural Phase I level surveys for transmission line corridors and transportation infrastructure as well as cost share projects in conjunction with local municipalities, Phase II level survey, stabilization plans, historic structures reports, and National Register of Historic Places nominations. Her range of experience also extends to detailed historical research and archival review, scaled architectural drawings and other technical drawings, signage and heritage tourism brochures, as well as museum displays. Additionally, Sandra was a founding member and Chairperson of the Martinsville, Virginia Architectural Review Board and has lectured on various Art, Art History, and Architectural topics as educator in humanities and as a guest speaker.

Sandra's current responsibilities at Stantec include architectural surveys at the Phase I and II levels, managerial tasks associated with architectural investigations, writing and editing technical reports, consultation with and representation of clients before state and national review agencies, and developing and managing project budgets and scopes of work.

EDUCATION

M.A. Preservation Studies, Architectural History,
Boston University, Boston, Massachusetts, 2000

B.S. Interior Design, University of Delaware, Newark,
Delaware, 1989

CERTIFICATIONS & TRAINING

Section 106 Certification, Richmond, Virginia, 2014

PROJECT EXPERIENCE

Transmission & Distribution, Transmission Lines

Dominion Energy Virginia – A Phase I Cultural Resources Survey of Approximately 7.39 Miles Associated with the Fudge Hollow to Low Moor Line #112 138 kV Transmission Line Partial Rebuild, City of Covington, Alleghany County, Virginia

Ms. DeChard served as Senior Architectural Historian for the project which included the documentation of 124 resources at a Phase I level within the defined APE of the project. The project also included the evaluation of the resources for NRHP eligibility.

Dominion Energy Virginia – A Phase I Cultural

Resources Survey of Approximately 14.5 Miles Associated with the Proposed Valley to Dooms 500 kV Rebuild Project in Augusta County, Virginia

Ms. DeChard served as Senior Architectural Historian for the project which included the documentation of 306 resources at a Phase I level within the defined APE of the project. The project also included the evaluation of the resources for NRHP eligibility.

Roadways

NCDOT – Historic Structures Survey Report T.I.P. No. U-6077, Widening of SR 4315/Kernersville Road from SR 2632/Sedge Garden Road to Harmon Creek Road, Forsyth County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of two resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.

NCDOT – Historic Structures Survey Report for T.I.P. No. U-3609B, Widening US 13 (Berkeley Boulevard) from SR 1003 (New Hope Road) to SR 1572 (Saulston Road) in the City of Goldsboro, Wayne County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of two resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.

NCDOT – Building Inventory for TIP# U-5863, Widen NC 133 (Castle Hayne Road) from I-140/US17 (Wilmington Bypass) to SR 1310 (Division Drive, New Hanover County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included building inventory of 136 resources within the area of potential effect for the proposed road improvements.

NCDOT – Historic Structure Survey for TIP# R-5743B, Widen US 23/US441 from US 64 to SR 1652 (Wide Horizon Drive)/SR1152 (Belden Circle) to South of SR1649 (Prentiss Bridge Road), Franklin, Macon County, North Carolina

Ms. DeChard served as Architectural Historian for the project which included an intensive level survey of five resources within the area of potential effect for the proposed road improvements. The project also included a National Register of Historic Places eligibility evaluation for each of the resources surveyed.

VDOT – A Phase I Architectural Survey for the Proposed Cochran Mill Road Bridge Replacement, Loudoun County, Virginia

Sandra served as architectural historian for the survey. The survey included the documentation of three resources at a Phase I level including the bridge as well as two resources immediately adjacent to and in view of the Cochran Mill Road Bridge.

VDOT – An Architectural Survey for the Route 15/29 Bridge Replacement*, Culpeper County, Virginia

Ms. DeChard served as Architectural Historian for the survey. The survey entailed the recordation of three resources, including the bridge, within the study area. Evaluations of NRHP eligibility for each resource were also conducted.

Bridges

City of Atlanta- Architectural Survey of the Powers Ferry Road Bridge over Nancy Creek, Powers Ferry Road, Atlanta, Georgia

Ms. DeChard served as Senior Architectural Historian, Principal Investigator for the survey. The survey documented the bridge at a Phase I level and utilized historic background research as well as an architectural evaluation of the resource's integrity in order to make a recommendation of the bridge's NRHP eligibility.

VDOT – Page County Bridge National Register of Historic Places Nomination Form*, Page County, Virginia

Ms. DeChard conducted detailed research and authored the National Register of Historic Places (NRHP) nomination form for the Page County Bridge, Page County, Virginia.

* denotes projects completed with other firms

ATTACHMENT B
Right of Way Sheet

RIGHT OF WAY DATA SHEET

PARCEL NUMBER	LANDOWNER NAME	SHEET NUMBER	AREA: AREAS GREATER THAN OR EQUAL TO 1 ACRE WILL BE SHOWN IN ACRES. AREAS LESS THAN 1 ACRE WILL BE IN SQUARE FEET.						
			TOTAL (ACRE)	PRESCRIPTIVE R/W	FEE REMAINDER	EASEMENTS			
						PERMANENT	UTILITY	TEMPORARY	PROFFERS
001	FAIRFAX CHAIN BRIDGE HOTEL, L.L.C.	PL-01	1.402			16,130		11,720	NO
002	FAIRFAX 123 HOTEL	PL-01, PL-02	1.632			4,245		915	NO
003	N/F SAMUEL W. EATON	PL-02	0.078			0		103	NO
004	PDC EATON PLACE, L.L.C.	PL-02	3.531			0		595	NO
005	WILLOWWOOD, L.L.C.	PL-02	3.278			0		1,785	NO
006	SOON YOUNG KIM & YOUNG JA KIM	PL-03	0.339			0		84	NO
007	WILLOWWOOD LAND, L.L.C.	PL-04, PL-05	6.764			22,340		31,100	NO
008	CH REALTY VI/R FAIRFAX BOULEVARD, L.L.C.	PL-06, PL-07	2.486			8,925		6,060	NO
009	JDC BOULEVARD, L.L.C.	PL-07	0.664			101		75	NO
010	ROBERT E. STAFFORD & ASSOCIATES, LP	PL-08	5.074			203		0	NO
011	ADAMS & MCGRADY PROPERTIES, L.L.C.	PL-13	0.647			5,375		2,320	NO



11320 RANDOM HILLS ROAD, SUITE 600
 FAIRFAX, VIRGINIA 22030
 TEL. (703) 263 - 1220
 FAX (703) 263 - 1221



NO.	DESCRIPTION	NAME	DATE
REVISIONS			

CLIENT/PROJECT
CITY OF FAIRFAX
GEORGE T. SNYDER TRAIL

PROJECT NO: **18022** DATE: **02/05/2020** SHEET: **3 OF 106**

NO SCALE ROW - 01

RIGHT OF WAY DATA SHEET

BY: \$USER\$

PLOTTED: 04/15/2020

ATTACHMENT C
Preliminary Jurisdictional Determination



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

December 10, 2019

PRELIMINARY JURISDICTIONAL DETERMINATION

Northern Virginia Regulatory Section
NAO-2019-01737 (Snyder Trail)

City of Fairfax, Virginia
10455 Armstrong Street
Fairfax, Virginia 22030

To Whom It May Concern:

This letter is in regard to your request for a verification of a preliminary jurisdictional determination for waters of the U.S. (including wetlands) on property known as Snyder Trail located on an approximately 42.59 acre parcel north of Fairfax Boulevard (Route 50), east of Chain Bridge Road (Route 123), west of Old Lee Highway (Route 237), south of Ranger Road and can be accessed via parking areas off Fairfax Boulevard and Stafford Drive in Fairfax County, Virginia.

The maps entitled "Snyder Trail", by Stantec Consulting Services Inc. dated March 12, 2019 (*copy enclosed*) provide the location of waters and/or wetlands on the property listed above. The basis for this delineation includes application of the Corps' 1987 Wetland Delineation Manual and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*, and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation and the presence of an ordinary high water mark. This letter is not confirming the Cowardin classifications of these aquatic resources.

Discharges of dredged or fill material, including those associated with mechanized landclearing, into waters and/or wetlands on this site may require a Department of the Army permit and authorization by state and local authorities including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC) and/or a permit from your local wetlands board. This letter is a confirmation of the Corps preliminary jurisdiction for the waters and/or wetlands on the subject property and does not authorize any work in these areas. Please obtain all required permits before starting work in the delineated waters/wetland areas.

This is a preliminary jurisdictional determination and is therefore not a legally binding determination regarding whether Corps jurisdiction applies to the waters or wetlands in question. Accordingly, you may either consent to jurisdiction as set out in this

preliminary jurisdictional determination and the attachments hereto if you agree with the determination, or you may request and obtain an approved jurisdictional determination. "This preliminary jurisdictional determination and associated wetland delineation map may be submitted with a permit application."

Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to Ms. Theresita Crockett-Augustine either via email (theresita.m.crockett-augustine@usace.army.mil) or via standard mail to US Army Corps of Engineers, Northern Virginia Field Office at 18139 Triangle Plaza, Suite 213, Dumfries, Virginia 22026 within 30 days of receipt and keep one for your records. This delineation of waters and/or wetlands is valid for a period of five years from the date of this letter unless new information warrants revision prior to the expiration date.

If you have any questions, please contact Ms. Theresita Crockett-Augustine at (757) 201-7194 or theresita.m.crockett-augustine@usace.army.mil.

Sincerely,



Theresita Crockett-Augustine
Environmental Scientist
Northern Virginia Regulatory Section

Enclosures:

Delineation Map
Preliminary Jurisdictional Determination Form
Supplemental Preapplication Information

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION:

A. REPORT COMPLETION DATE FOR PJD: December 10, 2019

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

City of Fairfax, Virginia
 10455 Armstrong Street
 Fairfax, Virginia 22030

DISTRICT OFFICE, FILE NAME, AND NUMBER: NAO, Snyder Trail, 2019-01737

**C. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
 (USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT
 DIFFERENT SITES)**

State: **VIRGINIA** County/parish/borough: Fairfax City:

Center coordinates of site (lat/long in degree decimal format):

Latitude: 38.863 ° N Longitude: - 77.294 ° W

Universal Transverse Mercator:

Name of nearest waterbody: Accotink Creek

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: 12/9/2019

Field Determination. Date(s):

**TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO
 REGULATORY JURISDICTION.**

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
1			6,467 LF	RPW	Section 404
2			0.399 acres	Wetland	Section 404
3					

1. The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre- construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items.

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map:
 - Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale:
 - Data sheets prepared by the Corps:
 - Corps navigable waters' study:
 - U.S. Geological Survey Hydrologic Atlas: USGS
 - NHD data.
 - USGS 8 and 12 digit HUC maps.
 - U.S. Geological Survey map(s). Cite scale & quad name:
 - Natural Resources Conservation Service Soil Survey. Citation:
 - National wetlands inventory map(s). Cite name:
 - State/Local wetland inventory map(s):
 - FEMA/FIRM maps:
 - 100-year Floodplain Elevation: (National Geodetic Vertical Datum of 1929)
 - Photographs Aerial (Name & Date):
or Other (Name & Date):
 - Previous determination(s):
File no. and date of response letter:
 - Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

Signature and date of person requesting
PJD (REQUIRED, unless obtaining the signature
is impracticable)¹

¹ Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

December 10, 2019

Supplemental Preapplication Information

Project Number: NAO-2019-01737 (Snyder Trail)

1. A search of the Virginia Department of Historic Resources data revealed the following:

- No known historic properties are located on the property.
- Tribal consultation may be required.
- The following known architectural resources are located on the property:

Dhr Id	Property Name	Address	Historic Name	Nr Eligibility	Survey Updated	Restricted
029-5470	Washington and Virginia Railway Company (Historic), Washington, Arlington and Falls Church Electric Railway (Historic)	Electric Avenue and Railroad Street	-	DHR Staff: Not Eligible	15-JAN-19 11.37.38.000000 AM	Unrestricted
151-5557	House, 3401 Chain Bridge Road (Function/Location)	3401 Chain Bridge Road	-	-	08-AUG-19 11.58.32.000000 AM	-
151-5224	Circle Glass, 9788 Lee Highway (Function/Location), Commercial Building, 9788 Lee Highway (Function/Location)	9788 Fairfax Boulevard, 9788 Lee Highway	-	-	09-AUG-19 11.19.34.000000 AM	Unrestricted
151-5519	Mosby Woods (Historic), Mosby Woods Historic District (Current Name)	Antietam Avenue, Atlanta Street, Blue Coat Drive, Musket Court, Plantation Parkway, Scarlet Circle, Scout Drive, Singleton Circle, Tecumseh Lane	Mosby Woods Historic District	DHR Staff: Not Eligible	04-AUG-15 11.24.08.000000 AM	-

- The following known archaeological resources are located on the property:
- The following known historic resources are located in the vicinity of the property (potential for effects to these resources from future development):

NOTE:

- 1) *The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).*
- 2) *Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.*

2. A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries revealed the following:

No known populations of threatened or endangered species are located on or within the vicinity of the subject property.

The following federally-listed species may occur within the vicinity of the subject property:

The following state-listed (or other) species may occur within the vicinity of the subject property:

Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.

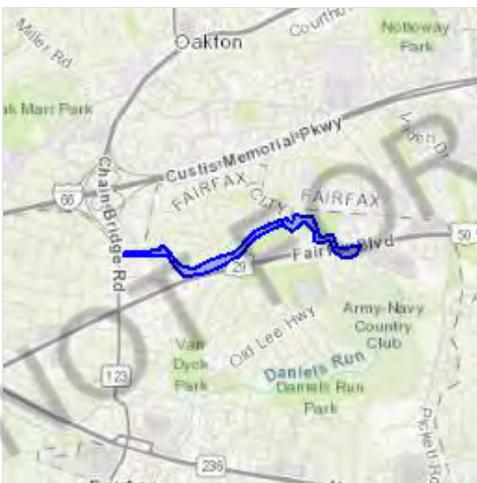
IPaC resource list

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

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

Location

Fairfax County, Virginia



Local office

Virginia Ecological Services Field Office

☎ (804) 693-6694

📠 (804) 693-9032

6669 Short Lane

Gloucester, VA 23061-4410

<http://www.fws.gov/northeast/virginiafield/>

Endangered species

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

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

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

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

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

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

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 habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

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

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE.

"BREEDS ELSEWHERE" INDICATES
 THAT THE BIRD DOES NOT LIKELY
 BREED IN YOUR PROJECT AREA.)

<p>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</p>	Breeds Sep 1 to Jul 31
<p>Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds May 1 to Jun 30
<p>Cerulean Warbler <i>Dendroica 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</p>	Breeds Apr 28 to Jul 20
<p>Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 20
<p>Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	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 and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (|)

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

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

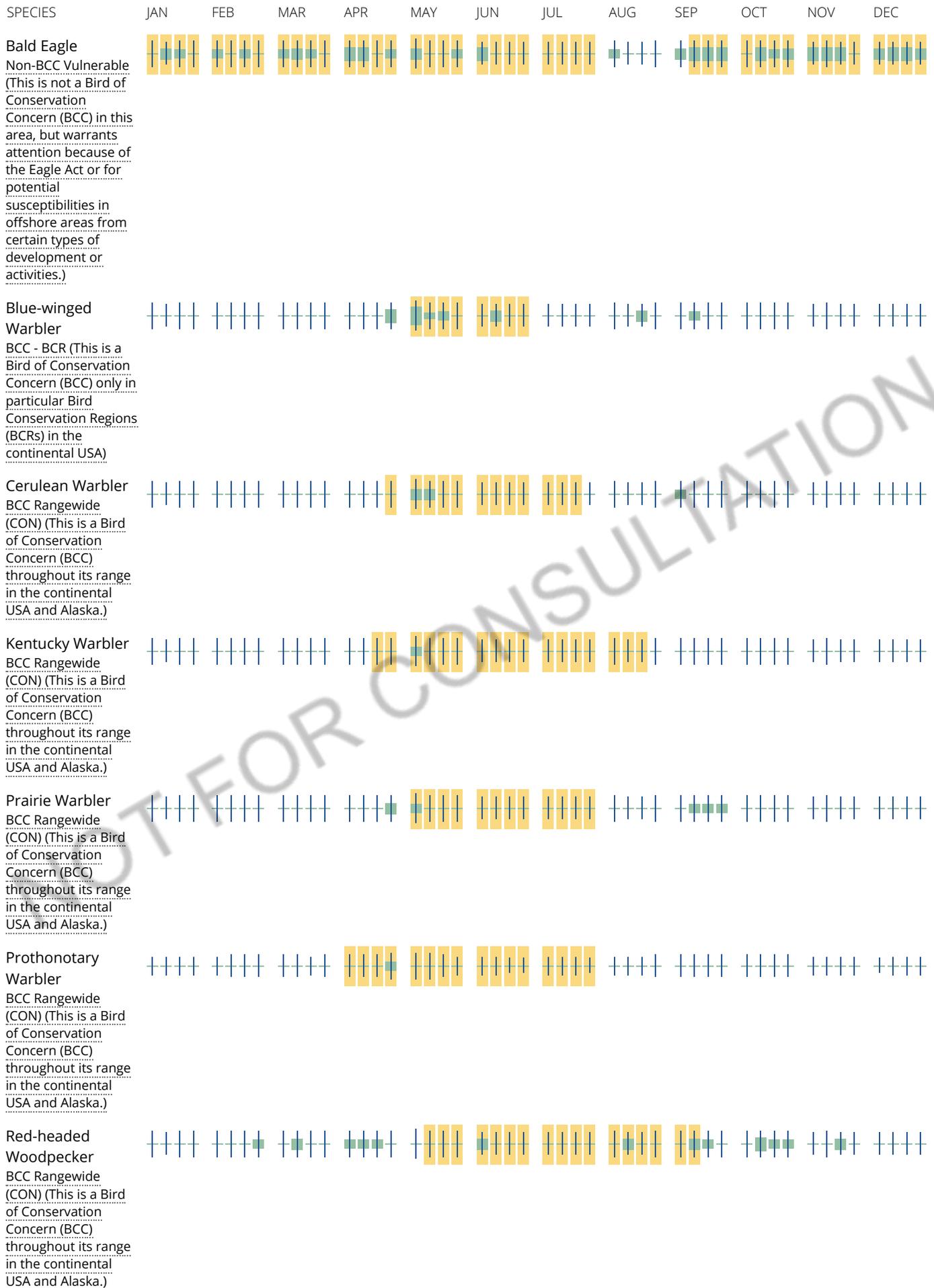
No Data (—)

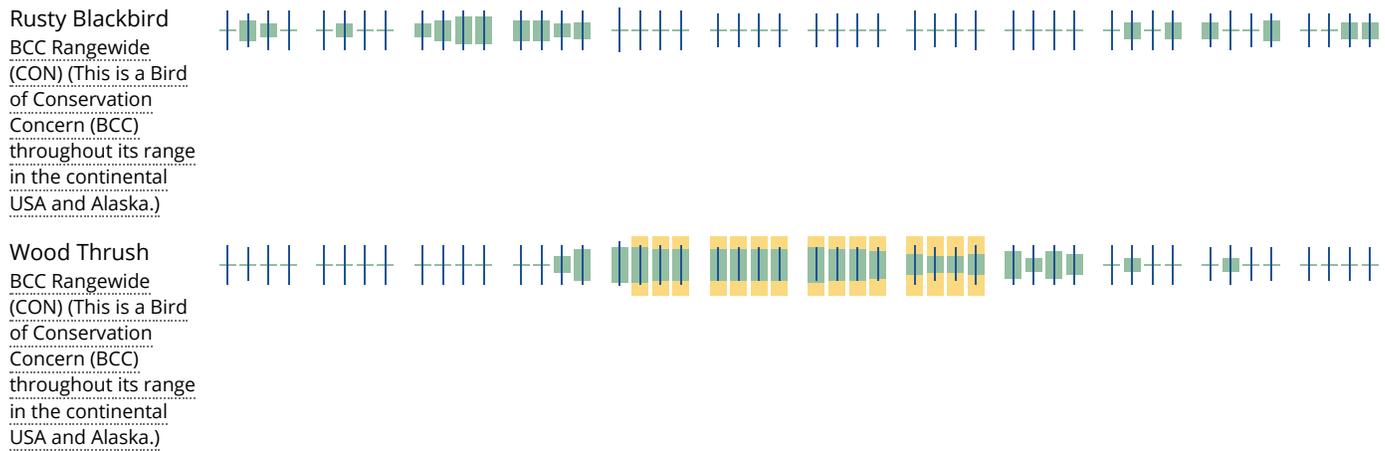
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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

■ probability of presence ■ breeding season | survey effort — no data





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

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

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

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

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

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds](#)

[guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1A](#)

[PSS1C](#)

RIVERINE

[R4SBC](#)

[R3UBH](#)

[R5UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

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

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

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

Data exclusions

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

Data precautions

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



Stantec Consulting Services Inc.
150 Riverside Parkway, Suite 301 Fredericksburg, Virginia 22406

August 6, 2019
File: 2026271807

Attention: Ms. Theresita Crockett-Augustine
U.S. Army Corps of Engineers
18139 Triangle Plaza, Suite 213
Dumfries, Virginia 22026
Via Email: Theresita.m.crockett-augustine@usace.army.mil

Reference: **Request for Preliminary Jurisdictional Determination**
George T. Snyder Trail, City of Fairfax, Virginia
Start: Latitude: 38.514667° Longitude: -77.182551°
End: Latitude: 38.514781° Longitude: -77.164902°

Applicant: City of Fairfax, Virginia
10455 Armstrong Street
Fairfax, Virginia 22030

Dear Ms. Crockett-Augustine:

Stantec Consulting Services, Inc. (Stantec) has been retained by the City of Fairfax to conduct a detailed investigation of waters of the U.S., including wetlands, on the above-referenced project. The approximate 42.59-acre site is located within the Accotink Creek drainage basin in Fairfax County, Virginia. The site is situated north of Fairfax Boulevard (Route 50), east of Chain Bridge Road (Route 123), west of Old Lee Highway (Route 237), south of Ranger Road and can be accessed via parking areas off Fairfax Boulevard and Stafford Drive (Figures 1 & 2). A copy of the Pre-Application and/or Jurisdictional Waters Determination Request Form is provided in Appendix A.

Off-site Evaluation

Prior to conducting fieldwork, Stantec consulted the U.S. Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map for Fairfax, Virginia (1998), the National Wetlands Inventory Interactive Mapper (NWI), administered by the U.S. Fish and Wildlife Service (USFWS), the SSURGO Soils Survey, administered by the Natural Resources Conservation Service (NRCS), and flood plain maps available at the Flood Map Service Center, administered by the Federal Emergency Management Agency (FEMA). The USGS quad map shows a site comprised of forested and cleared land situated on level to moderately sloping terrain. The NWI map (Figure 3) depicts palustrine forested and scrub-shrub wetlands along with associated perennial and intermittent stream features within the project corridor. The soil survey (Figure 4) indicates that the project area is underlain primarily by Codorus silt loam, Codorus and Hatboro soils, and Glenelg silt loam, none of which are classified as hydric by the NRCS in the City of Fairfax, Virginia. Codorus silt loam and Codorus and Hatboro soils may contain hydric inclusions. Additionally, the flood plain map (Figure 5) depicts portions of the project corridor as occurring within the 100-year floodplain (Zone AE).

On-site Evaluation

Fieldwork was conducted during March and April of 2019 using the Routine Determination Method as outlined in the 1987 *Corps of Engineers Wetland Delineation Manual* and methods described in the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)*. Wetland flags were placed in the field by Stantec and sequentially

Design with community in mind



August 6, 2019
 Ms. Crockett-Augustine
 Page 2 of 2

Reference: George T. Snyder Trail, City of Fairfax, Virginia

numbered to provide an on-site record of the delineation. The data sheets (Appendix B) used in this investigation are attached along with the Delineation Map (Figure 6) showing the surveyed limits of wetlands and other water features, as well as data point locations.

Site Description

Jurisdictional features identified by Stantec within the project limits may be classified as palustrine forested (PFO) and palustrine emergent (PEM) wetlands as well as non-vegetated stream channels. Wetland vegetation is typified by red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), persimmon (*Diospyros virginiana*), American hornbeam (*Carpinus caroliniana*), common greenbrier (*Smilax rotundifolia*), skunk cabbage (*Symplocarpus foetidus*), and lesser celandine (*Ficaria verna*). The transition from wetland to upland is generally identified by a shift in the vegetative community and a shift from hydric to non-hydric soils. Table 1 shows the dimensions of the identified jurisdictional resources within the project area.

Table 1. Wetlands and WOUS Calculations

PFO (Acres)	PEM (Acres)	Stream Channels (R3) Acres (LF)	Stream Channels (R4) Acres (LF)	Stream Channels (Ephemeral) Acres (LF)
0.341	0.058	3.062 (5,086)	0.156 (553)	0.155 (828)

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

Thank you for your cooperation in this matter.

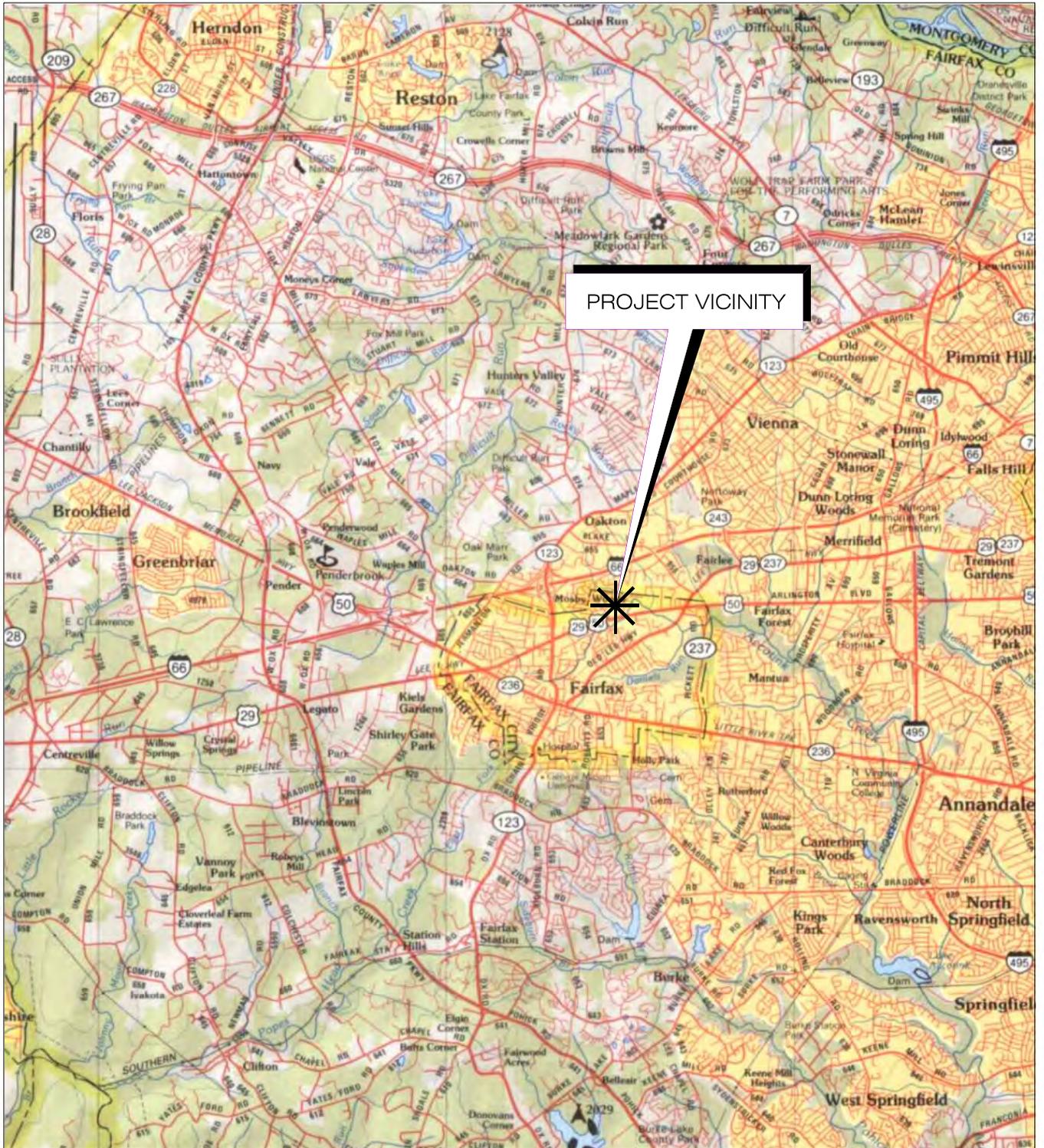
Regards,

Stantec Consulting Services

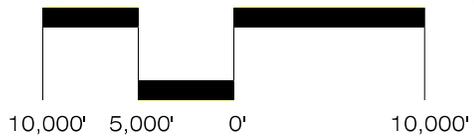
Jason Mann
 Senior Ecologist
 Phone: (540) 785-5544
 Fax: (540) 785-1742
 jason.mann@stantec.com

Attachment: Figures 1-6 and Appendices A & B

c. Loretta Cummings, Ph.D. – Stantec
 Matt Martin, P.E. – Stantec



PROJECT VICINITY



SOURCE: VIRGINIA ATLAS AND GAZETTEER,
DeLORME MAPPING CO., 1995

SCALE: 1 INCH = 10,000 FEET



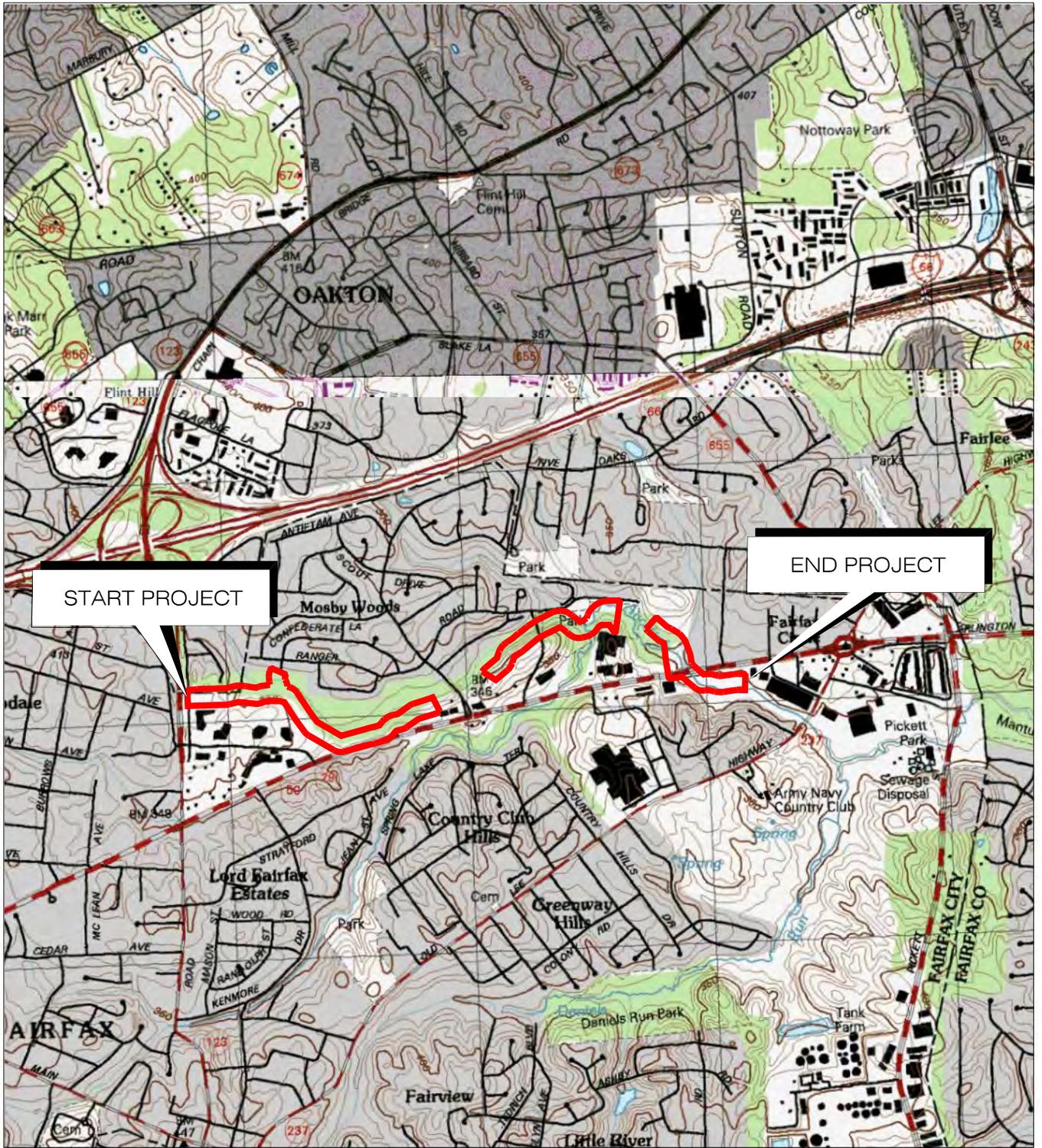
CLIENT/PROJECT
CITY OF FAIRFAX

CLIENT/PROJECT
VICINITY MAP

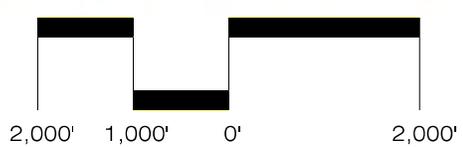
GEORGE T. SNYDER TRAIL

PROJECT NO:
2026271807

FIGURE 1



START: LATITUDE: N 38.514667
 LONGITUDE: W 77.182551
 END: LATITUDE: N 38.514781
 LONGITUDE: W 77.164902

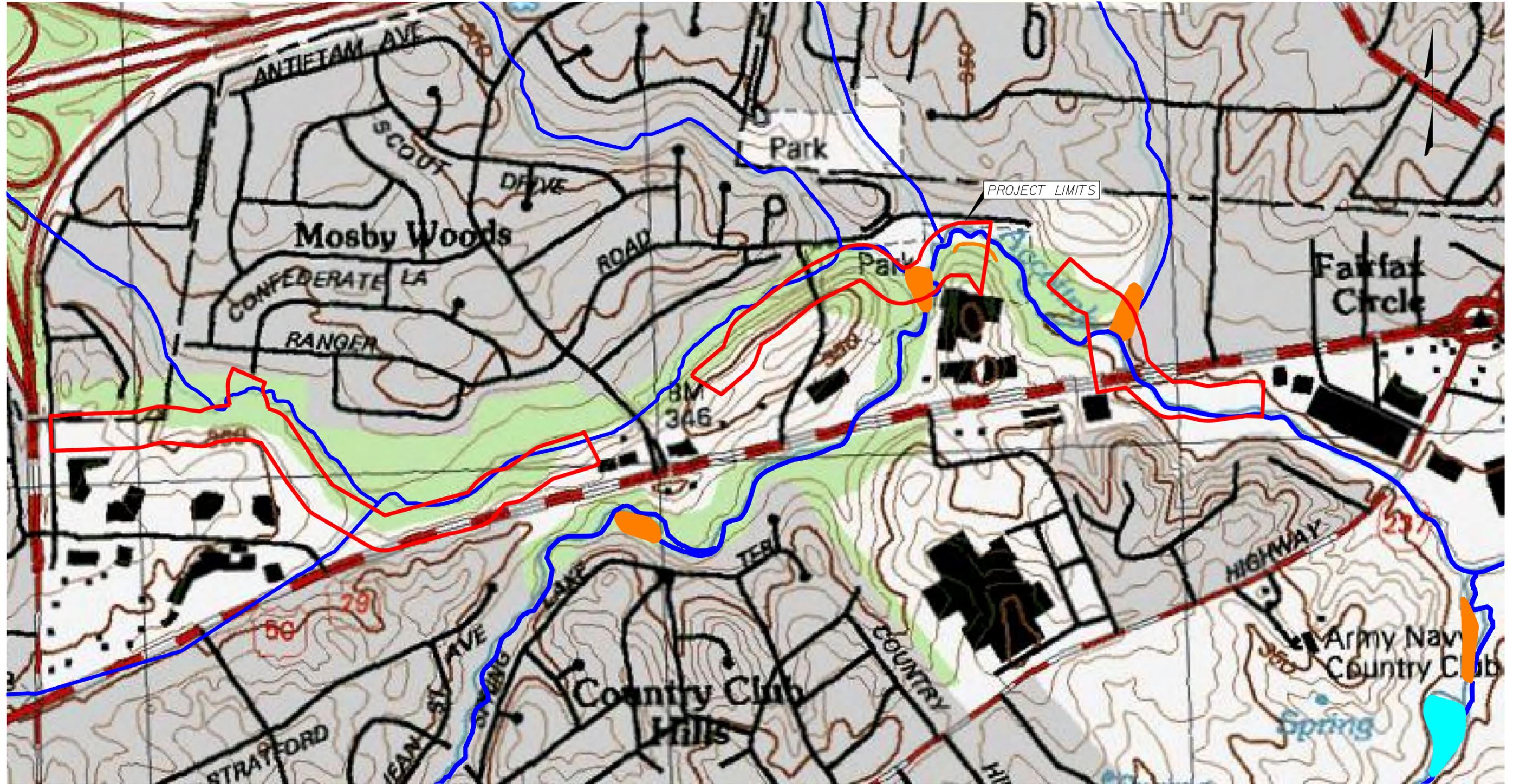


SOURCE: USGS 7.5 MINUTES SERIES TOPOGRAPHIC MAP, FAIRFAX, VA QUADRANGLE, 1998

SCALE: 1 INCH = 2,000 FEET

		CLIENT/PROJECT CITY OF FAIRFAX GEORGE T. SNYDER TRAIL PROJECT NO: 2026271807	CLIENT/PROJECT LOCATION MAP FIGURE 2
---	--	--	--

FIGURE 3 - NATIONAL WETLAND INVENTORY MAP



SOURCE: Download
<http://fws.gov/wetlands>

300' 0 300' 600'
 SCALE: 1"=300'



LEGEND	
	NWI FRESHWATER FORESTED/ SHRUB WETLAND LIMITS
	NWI FRESHWATER POND LIMITS
	NWI RIVERINE LIMITS

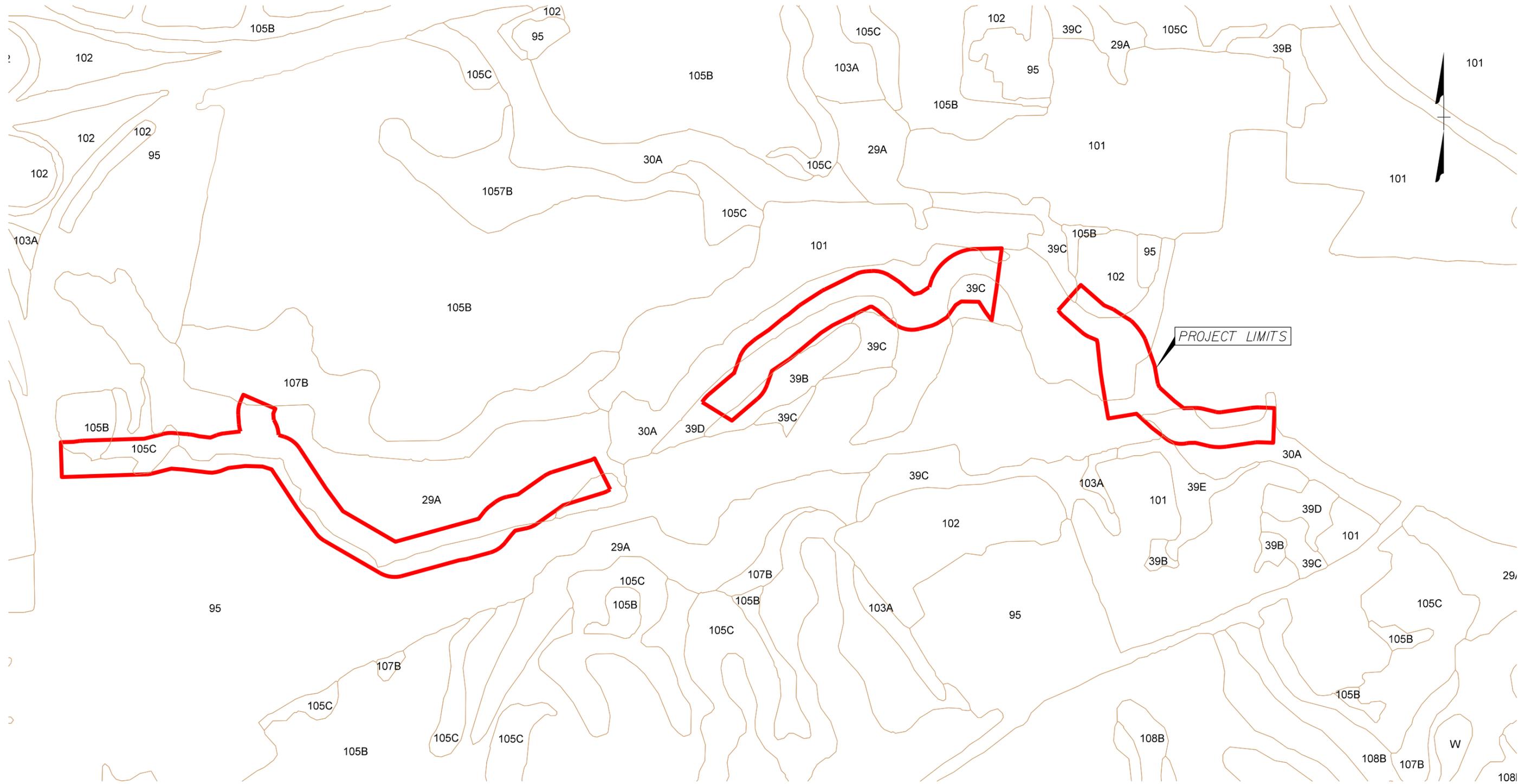


CLIENT/PROJECT CITY OF FAIRAX	CLIENT/PROJECT NATIONAL WETLAND INVENTORY MAP
GEORGE T. SNYDER TRAIL	
PROJECT NO: 2026271807	FIGURE 3

PROCESSING DATE: SEPTEMBER 6, 2017

BY: \$USER\$
 PLOTTED: \$DATE\$

FIGURE 4 - SOILS MAP



MAP UNIT SYMBOL	MAP UNIT NAME	HYDRIC RATING	MAP UNIT SYMBOL	MAP UNIT NAME	HYDRIC RATING
29A	CODORUS SILT LOAM, 0 TO 2 PERCENT SLOPES, OCCASIONALLY FLOODED	NOT HYDRIC	39E	GLENELG SILT LOAM, 25 TO 45 PERCENT SLOPES	NOT HYDRIC
30A	CODORUS AND HATBORO SOILS, 0 TO 2 PERCENT SLOPES, OCCASIONALLY FLOODED	NOT HYDRIC	95	URBAN LAND	-
39B	GLENELG SILT LOAM, 2 TO 7 PERCENT SLOPES	NOT HYDRIC	101	URBAN LAND-WHEATON COMPLEX	-
39C	GLENELG SILT LOAM, 7 TO 15 PERCENT SLOPES	NOT HYDRIC	102	WHEATON LOAM, 2 TO 25 PERCENT SLOPES	NOT HYDRIC
39D	GLENELG SILT LOAM, 15 TO 25 PERCENT SLOPES	NOT HYDRIC	105B	WHEATON - GLENELG COMPLEX, 2 TO 7 PERCENT SLOPES	NOT HYDRIC
			105C	WHEATON - GLENELG COMPLEX, 7 TO 15 PERCENT SLOPES	NOT HYDRIC
			107B	WHEATON - MEADOWVILLE COMPLEX, 2 TO 7 PERCENT SLOPES	NOT HYDRIC

SOURCE: USDA SSURGO DIGITAL DATA

300' 0 300' 600'
SCALE: 1"=300'

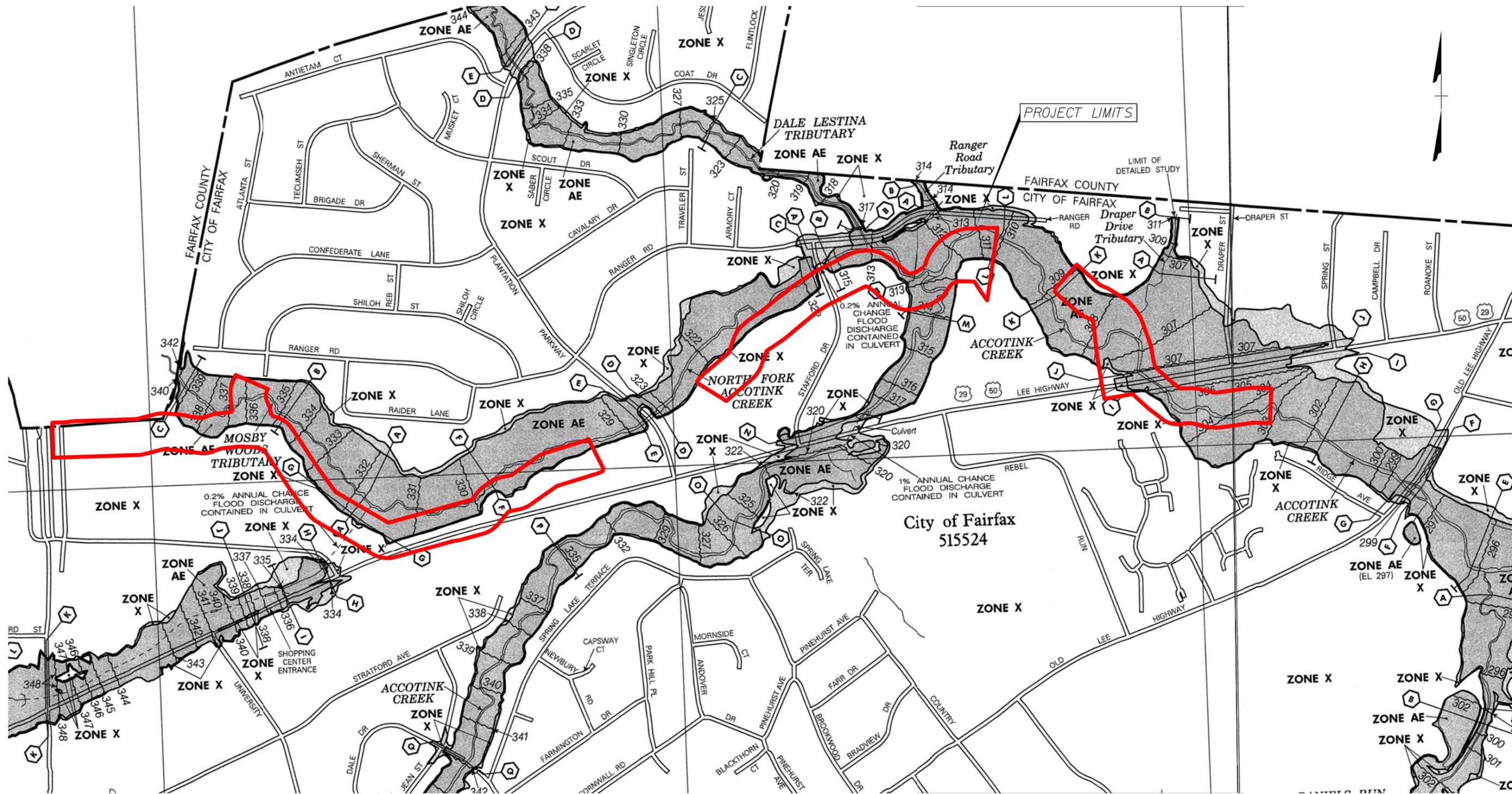


CLIENT/PROJECT
CITY OF FAIRAX
GEORGE T. SNYDER TRAIL
PROJECT NO:
2026271807

CLIENT/PROJECT
SOILS MAP
FIGURE 4

BY: \$USERNAME\$ PLOTTED: \$DATE\$

FIGURE 5 - FEMA FLOOD INSURANCE RATE MAP



300' 0 300' 600'
SCALE: 1"=300'



SOURCE: DIGITAL FLOOD INSURANCE RATE MAP (DFIRM)
FEDERAL EMERGENCY MANAGEMENT AGENCY,
NATIONAL FLOOD INSURANCE PROGRAM
MAP 5155240002D JUNE 2, 2006 &
MAP 5155240003D JUNE 2, 2006

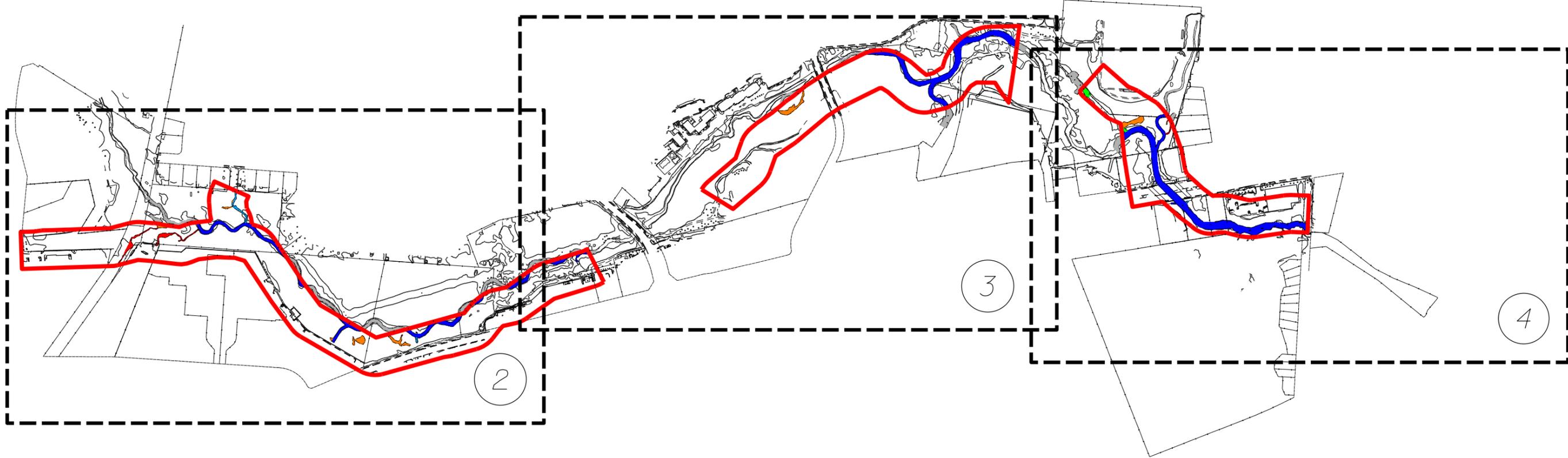


CLIENT/PROJECT
CITY OF FAIRFAX
GEORGE T. SNYDER TRAIL
PROJECT NO:
2026271807

CLIENT/PROJECT
FEMA FIRM MAP
FIGURE 5

BY: \$USER\$ DATE: SEPTEMBER 8, 2017 PLOTTED: \$DATE\$

SHEET INDEX



SUMMARY OF JURISDICTIONAL AREAS WITHIN THE
GEORGE T. SNYDER TRAIL ENVIRONMENTAL STUDY AREA



	WETLAND		STREAM					
	PEM (ft ²)	PFO (ft ²)	EPHEMERAL (R6) (ft ²)	If	INTERMITTENT (R4) (ft ²)	If	PERENNIAL (R3) (ft ²)	If
TOTAL	2,536	14,866	6,734	828	6,784	553	133,377	5,086
ACRES	0.058	0.341	0.155	N/A	0.156	N/A	3.062	N/A

COWARDIN CLASSIFICATION	
PEM	PALUSTRINE EMERGENT
PFO	PALUSTRINE FORESTED
R3	RIVERINE UPPER PERENNIAL
R4	RIVERINE INTERMITTENT
R6	RIVERINE EPHEMERAL



CLIENT/PROJECT
CITY OF FAIRAX
GEORGE T. SNYDER TRAIL

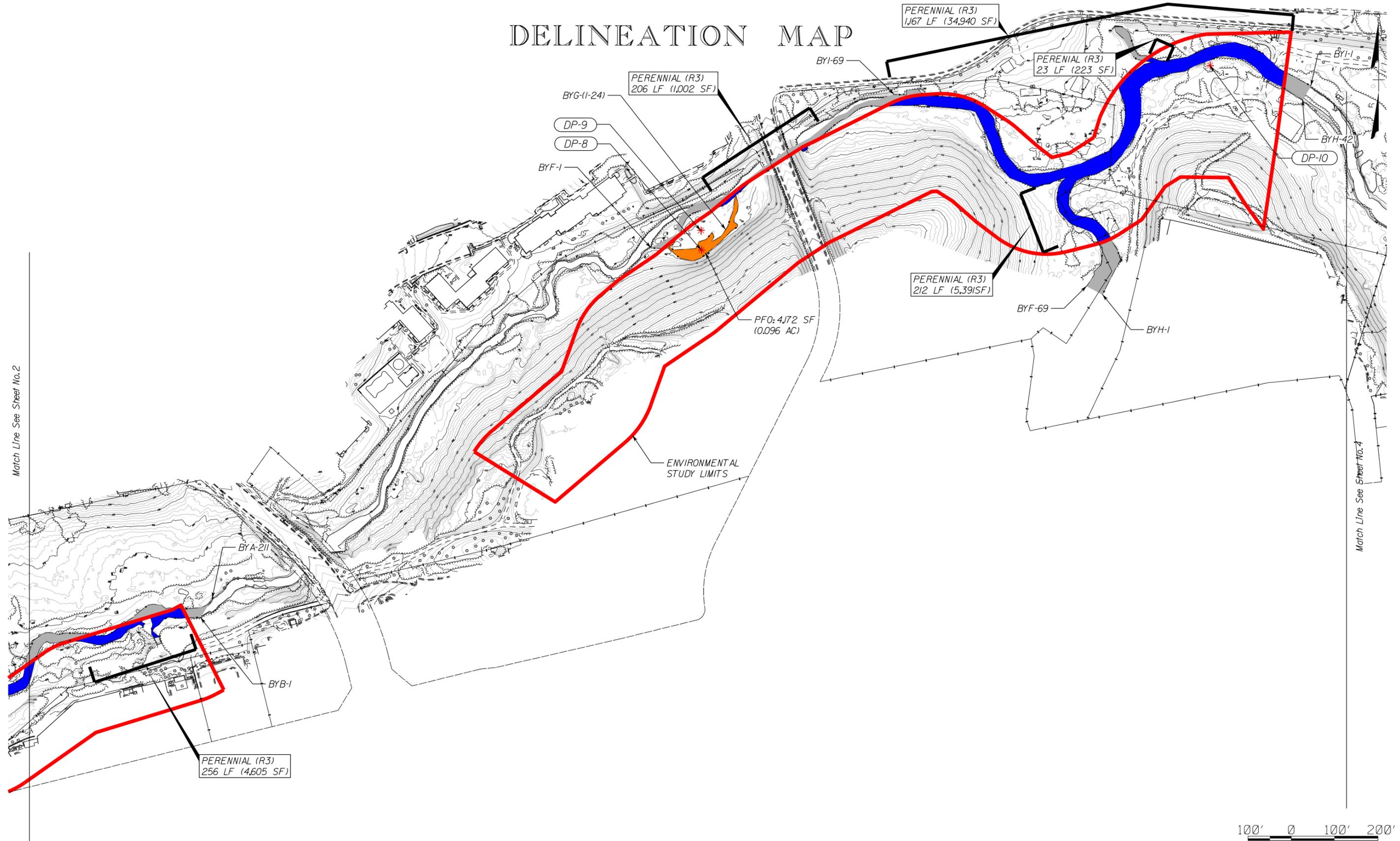
CLIENT/PROJECT
DELINEATION MAP

PROJECT NO:
2026271807

SHEET 1

BY: \$USERNAME\$ PLOTTED: \$DATE\$

DELINEATION MAP



Match Line See Sheet No. 2

Match Line See Sheet No. 4

100' 0 100' 200'
SCALE: 1"=100'



LEGEND	
	DENOTES PEM WETLAND
	DENOTES PFO WETLAND
	DENOTES DATA POINT
	DENOTES ENVIRONMENTAL STUDY LIMITS
	DENOTES DELINEATED WOUS
	DENOTES PERENNIAL (R3) STREAM CHANNEL
	DENOTES INTERMITTENT (R4) STREAM CHANNEL
	DENOTES EPHEMERAL (R6) STREAM CHANNEL

COWARDIN CLASSIFICATION	
PEM	PALUSTRINE EMERGENT
PFO	PALUSTRINE FORESTED
R3	RIVERINE UPPER PERENNIAL
R4	RIVERINE INTERMITTENT
R6	RIVERINE EPHEMERAL



CLIENT/PROJECT
CITY OF FAIRFAX
GEORGE T. SNYDER TRAIL

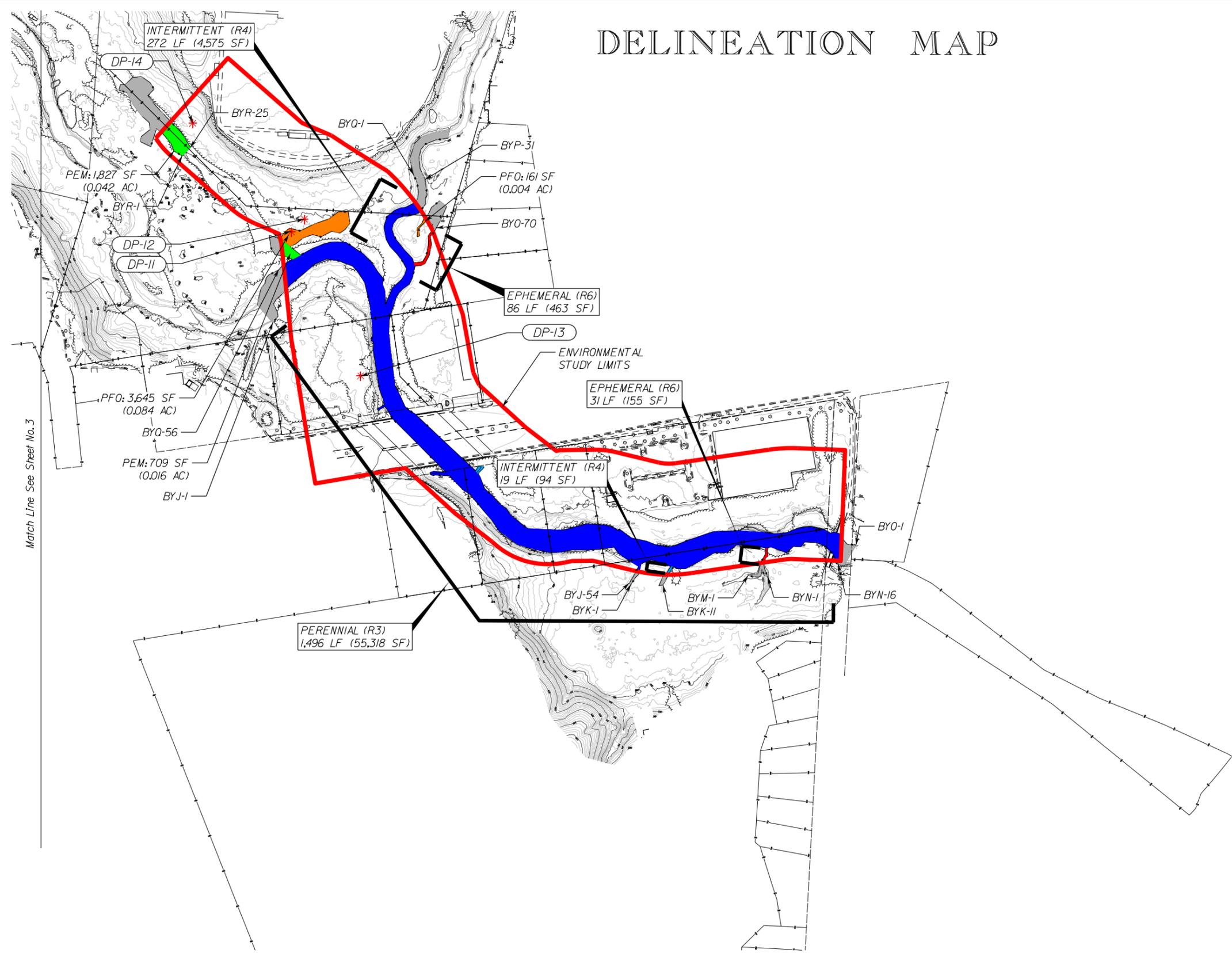
CLIENT/PROJECT
DELINEATION MAP

PROJECT NO:
2026271807

SHEET 3

BOGGER REV. DATE: SEPTEMBER 8, 2017

DELINEATION MAP



LEGEND	
	DENOTES PEM WETLAND
	DENOTES PFO WETLAND
	DENOTES DATA POINT
	DENOTES ENVIRONMENTAL STUDY LIMITS
	DENOTES DELINEATED WOUS
	DENOTES PERENNIAL (R3) STREAM CHANNEL
	DENOTES INTERMITTENT (R4) STREAM CHANNEL
	DENOTES EPHEMERAL (R6) STREAM CHANNEL

COWARDIN CLASSIFICATION	
PEM	PALUSTRINE EMERGENT
PFO	PALUSTRINE FORESTED
R3	RIVERINE UPPER PERENNIAL
R4	RIVERINE INTERMITTENT
R6	RIVERINE EPHEMERAL



CLIENT/PROJECT
 CITY OF FAIRAX
 DELINEATION MAP

GEORGE T. SNYDER TRAIL

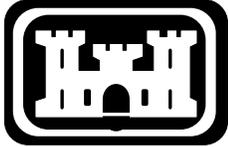
PROJECT NO:
 2026271807

SHEET 4

BY: \$USER\$

PLOTTED: 8/28/2017

**APPENDIX A
PRE-APPLICATION AND JURISDICTIONAL
DETERMINATION REQUEST FORM**



NORFOLK DISTRICT REGULATORY OFFICE PRE-APPLICATION AND/OR JURISDICTIONAL WATERS DETERMINATION REQUEST FORM

This form is used when you want to determine if areas on your property fall under regulatory requirements of the U.S. Army Corps of Engineers (USACE). Please supply the following information and supporting documents described below. This form can be filled out online and/or printed and then mailed, faxed, or e-mailed to the Norfolk District. Submitting this request authorizes the US Army Corps of Engineers to field inspect the property site, if necessary, to help in the determination process. **THIS FORM MUST BE SIGNED BY THE PROPERTY OWNER TO BE CONSIDERED A FORMAL REQUEST.**

The printed form and supporting documents should be mailed to:

U.S. Army Corps of Engineers, Norfolk District
Regulatory Office
803 Front Street
Norfolk, Virginia 23510-1096

Or faxed to (757) 201-7678

Or sent via e-mail to: CENAO.REG_ROD@usace.army.mil

Additional information on the Regulatory Program is available on our website at:

<http://www.nao.usace.army.mil/>

Please contact us at 757-201-7652 if you need any assistance with filling out this form.

Location and Information about Property to be subject to a Jurisdictional Determination:

1. Date of Request: **August 6, 2019**
2. Project Name: **George T. Snyder Trail**
3. City or County where property located: **City of Fairfax, Virginia**
4. Address of property and directions (attach a map of the property location and a copy of the property plat):
The site is situated north of Fairfax Boulevard (Route 50), east of Chain Bridge Road (Route 123), west of Old Lee Highway (Route 237), south of Ranger Road and can be accessed via parking areas off Fairfax Boulevard and Stafford Drive.
5. Coordinates of property (if known): **Start: Latitude: 38.514667° Longitude: -77.182551°**
End: Latitude: 38.514781° Longitude: -77.164902°
6. Size of property in acres: **42.59 Acres**
7. Tax Parcel Number / GPIN (if available):
8. Name of Nearest Waterway: **Accotink Creek**
9. Brief Description of Proposed Activity, Reason for Preapplication Request, and/or Reason for Jurisdictional Waters Determination Request: **Environmental constraints analysis.**

APPENDIX B
WETLAND DETERMINATION DATA FORMS

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 1



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514781
 Site Longitude: START: -77.182551° END: -77.164902
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

UPLAND NEAR FLAG BYB-279;

Hydrophytic Vegetation is Present: _____	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>NONE</u>
Wetland Hydrology is Present: _____	Problematic Parameters (see Remarks): _____	Landform: <u>FLAT</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>1-2</u>

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Water Depths (inches): Surface Water: _____ Water Table: _____ Saturated soil: _____	Remarks: HYDROLOGY PARAMETER NOT MET.

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Liriodendron tulipifera</i>	Tree	FACU	25	<i>Quercus rubra</i>	Tree	FACU	10
<i>Quercus michauxii</i>	Tree	FACW	20	<i>Allium vineale</i>	Herbaceous	FACU	5
<i>Acer rubrum</i>	Tree	FAC	15				
<i>Acer rubrum</i>	Sapling	FAC	15				
<i>Fagus grandifolia</i>	Sapling	FACU	10				
<i>Prunus serotina</i>	Shrub	FACU	15				
<i>Lonicera maakii</i>	Shrub	UPL	15				
<i>Ligustrum sinense</i>	Shrub	FACU	10				
<i>Ficaria verna</i>	Herbaceous	FAC	35				
<i>Lonicera japonica</i>	Vine	FACU	5				
<i>Hedera helix</i>	Vine	FACU	3				

% Dominant species FAC or wetter: 36% Prevalence Index: 3.5
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

Rapid Test for Hydrophytic Vegetation: _____	Remarks: VEGETATION PARAMETER NOT MET.
Dominance Test >50%: _____	
Prevalence Index is ≤ 3.0: _____	
Morphological Adaptations: _____	
Problematic Hydrophytic Vegetation: _____	

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-2	10YR 3/3	100						LOAM
2-14	10YR 3/4	100						LOAM
14-20	10YR 5/8	100						CLAY LOAM

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Umbric Surface (F13) <input type="checkbox"/> Piedmont Floodplain Soils (F19)	Indicators for Problematic Hydric Soils <input type="checkbox"/> 2cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other
Restrictive Layer (If Observed) Type: _____ Depth (inches): _____	Remarks: SOIL PARAMETER NOT MET.		

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 2



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514782
 Site Longitude: START: -77.182551° END: -77.164903
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

WETLAND NEAR FLAG BYB-279;

Hydrophytic Vegetation is Present: <input checked="" type="checkbox"/>	Normal Circumstances: <input checked="" type="checkbox"/>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: <input checked="" type="checkbox"/>	Disturbed Parameters (see Remarks): <u> </u>	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <input checked="" type="checkbox"/>	Problematic Parameters (see Remarks): <u> </u>	Landform: <u>FLAT</u>
Sampled Area is within a Wetland: <input checked="" type="checkbox"/>	Atypical Climate/Hydrology (see Remarks): <u> </u>	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:	
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	<u> </u> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	<u> </u> Crayfish Burrows (C8)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Geomorphic Position (D2)	<u> </u> Shallow Aquitard (D3)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Microtopographic Relief (D4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)		
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)		
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other		

Water Depths (inches):
 Surface Water: 2
 Water Table:
 Saturated soil: 1

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species				Stratum	IND	%	Non-Dominant Species				Stratum	IND	%
<i>Acer rubrum</i>		Tree	FAC		30								
<i>Fraxinus pennsylvanica</i>		Shrub	FACW		5								
<i>Symplocarpus foetidus</i>		Herbaceous	OBL		15								

% Dominant species FAC or wetter: 100% Prevalence Index: 2.3

NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)		%	Color (Moist)	%	Type	Loc	
0-4	10Y 3/1		100					SILT LOAM
4-8	10G 4/1		75	10YR 4/6	25	C	M	SILTY CLAY LOAM
8-20	10YR 4/6		80	10YR 5/2	20	D	M	CLAY LOAM

Hydric Soil Indicators:

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

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

Remarks: **SOIL PARAMETER MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 3



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514783
 Site Longitude: START: -77.182551° END: -77.164904
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

UPLAND IN FLOODPLAIN IN WESTERN PORTION OF PROJECT CORRIDOR;

Hydrophytic Vegetation is Present: _____	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>NONE</u>
Wetland Hydrology is Present: _____	Problematic Parameters (see Remarks): _____	Landform: <u>FLOODPLAIN</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>1-2</u>

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Water Depths (inches): Surface Water: _____ Water Table: _____ Saturated soil: _____	Remarks: HYDROLOGY PARAMETER NOT MET.

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Liriodendron tulipifera</i>	Tree	FACU	45	<i>Ilex opaca</i>	Shrub	FACU	3
<i>Quercus rubra</i>	Sapling	FACU	15				
<i>Pinus taeda</i>	Sapling	FAC	5				
<i>Corylus americana</i>	Shrub	FACU	25				
<i>Lonicera maackii</i>	Shrub	UPL	15				
<i>Rosa multiflora</i>	Shrub	FACU	15				
<i>Allium vineale</i>	Herbaceous	FACU	5				
<i>Fragaria virginiana</i>	Herbaceous	FACU	3				
<i>Smilax rotundifolia</i>	Vine	FAC	10				
<i>Vitis aestivalis</i>	Vine	FACU	5				

% Dominant species FAC or wetter: 20% Prevalence Index: 4.0
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST *Calculated using all species present.*

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

Remarks: **VEGETATION PARAMETER NOT MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-2	10YR 3/4	100						LOAM
2-20	10YR 4/6	100						CLAY LOAM

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Umbric Surface (F13) <input type="checkbox"/> Piedmont Floodplain Soils (F19)	Indicators for Problematic Hydric Soils <input type="checkbox"/> 2cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other
---	---	--	--

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

Remarks: **SOIL PARAMETER NOT MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 4



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514784
 Site Longitude: START: -77.182551° END: -77.164905
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

WETLAND NEAR FLAG BYE-1;

Hydrophytic Vegetation is Present: <u>X</u>	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: <u>X</u>	Disturbed Parameters (see Remarks): <u> </u>	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <u>X</u>	Problematic Parameters (see Remarks): <u> </u>	Landform: <u>FLAT</u>
Sampled Area is within a Wetland: <u>X</u>	Atypical Climate/Hydrology (see Remarks): <u> </u>	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other	<input type="checkbox"/> Geomorphic Position (D2)
		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Water Depths (inches):
 Surface Water: 1
 Water Table:
 Saturated soil: 1

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Fraxinus pennsylvanica</i>	Shrub	FACW	10				
<i>Lonicera maackii</i>	Shrub	UPL	10				
<i>Symplocarpus foetidus</i>	Herbaceous	OBL	5				
<i>Lonicera japonica</i>	Vine	FACU	5				
<i>Smilax rotundifolia</i>	Vine	FAC	5				

% Dominant species FAC or wetter: 60% Prevalence Index: 3.1
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-3	2.5YR 4/2	90		7.5YR 4/6	10	C	M	SILT LOAM
3-20	10YR 5/3	90		7.5YR 4/6	10	C	M	SILTY CLAY LOAM

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils
 2cm Muck (A10)
 Coast Prairie Redox (A16)
 Piedmont Floodplain Soils (F19)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 Other

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

Remarks: **SOIL PARAMETER MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 5



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514785
 Site Longitude: START: -77.182551° END: -77.164906
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

UPLAND NEAR FLAG BYE-1:

Hydrophytic Vegetation is Present: _____	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <u>X</u>	Problematic Parameters (see Remarks): _____	Landform: <u>FLAT</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other _____	<input type="checkbox"/> Geomorphic Position (D2)
		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Water Depths (inches):
 Surface Water: _____
 Water Table: _____
 Saturated soil: 3

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species				Stratum	IND	%	Non-Dominant Species				Stratum	IND	%
<i>Liriodendron tulipifera</i>		Tree	FACU	35	<i>Acer rubrum</i>	Tree	FAC	5					
<i>Prunus serotina</i>		Sapling	FACU	5	<i>Ligustrum sinense</i>	Shrub	FACU	15					
<i>Ilex opaca</i>		Sapling	FACU	5	<i>Ilex opaca</i>	Shrub	FACU	3					
<i>Lonicera maackii</i>		Shrub	UPL	40									
<i>Rosa multiflora</i>		Shrub	FACU	20									
<i>Fragaria virginiana</i>	Herbaceous	FACU	5										
<i>Lonicera japonica</i>	Vine	FACU	5										
<i>Hedera helix</i>	Vine	FACU	3										

% Dominant species FAC or wetter: O Prevalence Index: 4.2
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER NOT MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-3	10YR 4/3	95		10YR 4/6	5	C	M	CLAY LOAM
3-20	10YR 6/6	85		7.5YR 5/8	15	C	M	CLAY LOAM

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils
 2cm Muck (A10)
 Coast Prairie Redox (A16)
 Piedmont Floodplain Soils (F19)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 Other _____

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

Remarks: **SOIL PARAMETER NOT MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 6



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514786
 Site Longitude: START: -77.182551° END: -77.164907
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

WETLAND NEAR FLAG BYC-4;

Hydrophytic Vegetation is Present: <u>X</u>	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: <u>X</u>	Disturbed Parameters (see Remarks): <u> </u>	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <u>X</u>	Problematic Parameters (see Remarks): <u> </u>	Landform: <u>FLAT</u>
Sampled Area is within a Wetland: <u>X</u>	Atypical Climate/Hydrology (see Remarks): <u> </u>	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:	
<u> </u> Surface Water (A1)	<u>X</u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	<u> </u> Sparsely Vegetated Concave Surface (B8)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	<u> </u> Moss Trim Lines (B16)
<u>X</u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	<u> </u> Crayfish Burrows (C8)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Geomorphic Position (D2)	<u> </u> Shallow Aquitard (D3)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Microtopographic Relief (D4)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)		
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)		
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other		

Water Depths (inches):
 Surface Water:
 Water Table:
 Saturated soil: 1

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Diospyros virginiana</i>	Tree	FAC	30				
<i>Carpinus caroliniana</i>	Sapling	FAC	15				

% Dominant species FAC or wetter: 100% Prevalence Index: 3.0

NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-4	2.5Y 4/1	95		10YR 4/8	5	C	M	LOAM
4-10	2.5Y 4/1	65		7.5YR 3/4	35	C	M	CLAY LOAM
10-20	10YR 4/6	100						CLAY LOAM

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>X</u> Depleted Matrix (F3)
<u> </u> Histic Epipedon (A2)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Dark Surface (F6)
<u> </u> Black Histic (A3)	<u> </u> Sandy Redox (S5)	<u> </u> Depleted Dark Surface (F7)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Stripped Matrix (S6)	<u> </u> Redox Depressions (F8)
<u> </u> Stratified Layers (A5)	<u> </u> Dark Surface (S7)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> 2 cm Muck (A10)	<u> </u> Polyvalue Below Surface (S8)	<u> </u> Umbric Surface (F13)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Thin Dark Surface (S9)	<u> </u> Piedmont Floodplain Soils (F19)
<u> </u> Thick Dark Surface (A12)	<u> </u> Loamy Gleyed Matrix (F2)	

Indicators for Problematic Hydric Soils
 2cm Muck (A10)
 Coast Prairie Redox (A16)
 Piedmont Floodplain Soils (F19)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 Other

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

Remarks: **SOIL PARAMETER MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 7



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514787
 Site Longitude: START: -77.182551° END: -77.164908
 Soil Map Unit Name: CODORUS SILT LOAM

Summary of Findings:

UPLAND NEAR FLAG BYC-4:

Hydrophytic Vegetation is Present: _____	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <u>X</u>	Problematic Parameters (see Remarks): _____	Landform: <u>DRAINAGEWAY</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>1-3</u>

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Water Depths (inches): Surface Water: _____ Water Table: _____ Saturated soil: <u>1</u>	Remarks: HYDROLOGY PARAMETER MET.

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Liriodendron tulipifera</i>	Tree	FACU	20				
<i>Quercus rubra</i>	Tree	FACU	15				
<i>Acer rubrum</i>	Tree	FAC	10				
<i>Acer rubrum</i>	Sapling	FAC	5				
<i>Rhus glabra</i>	Sapling	UPL	5				
<i>Lonicera maackii</i>	Shrub	UPL	10				
<i>Rhus glabra</i>	Shrub	UPL	5				
<i>Allium vineale</i>	Herbaceous	FACU	5				
<i>Lonicera japonica</i>	Vine	FACU	5				

% Dominant species FAC or wetter: 22% Prevalence Index: 4.1
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST *Calculated using all species present.*

Rapid Test for Hydrophytic Vegetation: _____ Dominance Test >50%: _____ Prevalence Index is ≤ 3.0: _____ Morphological Adaptations: _____ Problematic Hydrophytic Vegetation: _____	Remarks: VEGETATION PARAMETER NOT MET.
---	---

Soil Parameter:

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

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Umbric Surface (F13) <input type="checkbox"/> Piedmont Floodplain Soils (F19)	Indicators for Problematic Hydric Soils <input type="checkbox"/> 2cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other
Restrictive Layer (If Observed) Type: _____ Depth (inches): _____	Remarks: SOIL PARAMETER NOT MET.		

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 8



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514788
 Site Longitude: START: -77.182551° END: -77.164909
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

WETLAND NEAR FLAG BYG-11:

Hydrophytic Vegetation is Present: <input checked="" type="checkbox"/>	Normal Circumstances: <input checked="" type="checkbox"/>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: <input checked="" type="checkbox"/>	Disturbed Parameters (see Remarks): <input type="checkbox"/>	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <input checked="" type="checkbox"/>	Problematic Parameters (see Remarks): <input type="checkbox"/>	Landform: <u>TOE OF SLOPE</u>
Sampled Area is within a Wetland: <input checked="" type="checkbox"/>	Atypical Climate/Hydrology (see Remarks): <input type="checkbox"/>	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:	
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Microtopographic Relief (D4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other		

Water Depths (inches):
 Surface Water: _____
 Water Table: _____
 Saturated soil: 1

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Acer rubrum</i>	Tree	FAC	30				
<i>Nasturtium officinale</i>	Herbaceous	OBL	5				
<i>Symplocarpus foetidus</i>	Herbaceous	OBL	5				

% Dominant species FAC or wetter: 100% Prevalence Index: 2.5

NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-5	10Y 4/1	85		10YR 3/4	15	C	M	LOAM
5-20	2.5Y 5/2	70		10YR 3/4	30	C	M	CLAY LOAM

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils:
 2cm Muck (A10)
 Coast Prairie Redox (A16)
 Piedmont Floodplain Soils (F19)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 Other

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

Remarks: **SOIL PARAMETER MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 9



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514789
 Site Longitude: START: -77.182551° END: -77.164910
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

UPLAND NEAR FLAG BYG-11;

Hydrophytic Vegetation is Present: _____	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>NONE</u>
Wetland Hydrology is Present: <u>X</u>	Problematic Parameters (see Remarks): _____	Landform: <u>FLAT</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Water Depths (inches): Surface Water: _____ Water Table: _____ Saturated soil: <u>5</u>	Remarks: HYDROLOGY PARAMETER MET.

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Fagus grandifolia</i>	Tree	FACU	50	<i>Festuca rubra</i>	Herbaceous	FACU	3
<i>Liriodendron tulipifera</i>	Tree	FACU	25				
<i>Fagus grandifolia</i>	Sapling	FACU	15				
<i>Fagus grandifolia</i>	Shrub	FACU	15				
<i>Allium vineale</i>	Herbaceous	FACU	10				
<i>Lonicera japonica</i>	Vine	FACU	3				

% Dominant species FAC or wetter: O Prevalence Index: 4.0
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

Rapid Test for Hydrophytic Vegetation: _____ Dominance Test >50%: _____ Prevalence Index is ≤ 3.0: _____ Morphological Adaptations: _____ Problematic Hydrophytic Vegetation: _____	Remarks: VEGETATION PARAMETER NOT MET.
---	---

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-1	10YR 4/3	100						LOAM
1-16	10YR 5/6	100						SANDY LOAM
16-20	10YR 6/8	100						SANDY CLAY LOAM

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Umbric Surface (F13) <input type="checkbox"/> Piedmont Floodplain Soils (F19)	Indicators for Problematic Hydric Soils <input type="checkbox"/> 2cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other
Restrictive Layer (If Observed) Type: _____ Depth (inches): _____	Remarks: SOIL PARAMETER NOT MET.		

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 10



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514790
 Site Longitude: START: -77.182551° END: -77.164911
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

UPLAND NEAR PARK PLAYGROUND IN CENTRAL PORTION OF PROJECT CORRIDOR;

Hydrophytic Vegetation is Present: <u>X</u>	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>NONE</u>
Wetland Hydrology is Present: _____	Problematic Parameters (see Remarks): _____	Landform: <u>FLAT</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>0-1</u>

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other	

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

Remarks: **HYDROLOGY PARAMETER NOT MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Platanus occidentalis</i>	Tree	FACW	55	<i>Quercus falcata</i>	Tree	FACU	10
<i>Carpinus caroliniana</i>	Tree	FAC	20	<i>Rosa multiflora</i>	Shrub	FACU	5
<i>Prunus serotina</i>	Sapling	FACU	10	<i>Allium vineale</i>	Herbaceous	FACU	5
<i>Acer rubrum</i>	Sapling	FAC	5				
<i>Lonicera maackii</i>	Shrub	UPL	15				
<i>Vaccinium corymbosum</i>	Shrub	FACW	10				
<i>Ficaria verna</i>	Herbaceous	FAC	70				
<i>Lonicera japonica</i>	Vine	FACU	5				

% Dominant species FAC or wetter: 63% Prevalence Index: 3.3
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST *Calculated using all species present.*

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-7	10YR 4/4	100						CLAY LOAM
7-20	10YR 5/6	100						SILT LOAM

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils
 2cm Muck (A10)
 Coast Prairie Redox (A16)
 Piedmont Floodplain Soils (F19)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 Other

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

Remarks: **SOIL PARAMETER NOT MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 11



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514791
 Site Longitude: START: -77.182551° END: -77.164912
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

WETLAND NEAR FLAG BYQ-36:

Hydrophytic Vegetation is Present: <input checked="" type="checkbox"/>	Normal Circumstances: <input checked="" type="checkbox"/>	NWI Classification: <u>PSS1C</u>
Hydric Soils are Present: <input checked="" type="checkbox"/>	Disturbed Parameters (see Remarks): <u> </u>	Local Relief: <u>CONCAVE</u>
Wetland Hydrology is Present: <input checked="" type="checkbox"/>	Problematic Parameters (see Remarks): <u> </u>	Landform: <u>DRAINAGEWAY</u>
Sampled Area is within a Wetland: <input checked="" type="checkbox"/>	Atypical Climate/Hydrology (see Remarks): <u> </u>	Slope %: <u>1-2</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:	
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Microtopographic Relief (D4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other		

Water Depths (inches):
 Surface Water:
 Water Table: 1
 Saturated soil: 1

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Platanus occidentalis</i>	Tree	FACW	35	<i>Juncus effusus</i>	Herbaceous	FACW	10
<i>Diospyros virginiana</i>	Tree	FAC	20	<i>Carex lurida</i>	Herbaceous	OBL	10
<i>Betula nigra</i>	Tree	FACW	15	<i>Allium vineale</i>	Herbaceous	FACU	3
<i>Acer rubrum</i>	Sapling	FAC	10				
<i>Fraxinus pennsylvanica</i>	Shrub	FACW	15				
<i>Ficaria verna</i>	Herbaceous	FAC	15				
<i>Carex vulpinoidea</i>	Herbaceous	OBL	15				

% Dominant species FAC or wetter: 100% Prevalence Index: 2.2
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-2	10YR 5/3	100						LOAM
2-10	2.5Y 5/2	90		10YR 6/6	10	C	M	CLAY LOAM
10-20	2.5Y 6/2	90		10YR 5/4	10	C	M	CLAY LOAM

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils
 2cm Muck (A10)
 Coast Prairie Redox (A16)
 Piedmont Floodplain Soils (F19)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 Other

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

Remarks: **SOIL PARAMETER MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 12



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514792
 Site Longitude: START: -77.182551° END: -77.164913
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

UPLAND NEAR FLAG BYQ-36;

Hydrophytic Vegetation is Present: _____	Normal Circumstances: <input checked="" type="checkbox"/> X	NWI Classification: PSS1C
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: NONE
Wetland Hydrology is Present: <input checked="" type="checkbox"/> X	Problematic Parameters (see Remarks): _____	Landform: TOE OF SLOPE
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: 1-3

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Water Depths (inches): Surface Water: _____ Water Table: _____ Saturated soil: 1	Remarks: HYDROLOGY PARAMETER MET.

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Acer rubrum</i>	Tree	FAC	35	<i>Lonicera maackii</i>	Shrub	UPL	5
<i>Platanus occidentalis</i>	Tree	FACW	20				
<i>Fagus grandifolia</i>	Tree	FACU	15				
<i>Fagus grandifolia</i>	Sapling	FACU	25				
<i>Acer rubrum</i>	Sapling	FAC	10				
<i>Fagus grandifolia</i>	Shrub	FACU	15				
<i>Rosa multiflora</i>	Shrub	FACU	10				
<i>Ficaria verna</i>	Herbaceous	FAC	35				
<i>Allium vineale</i>	Herbaceous	FACU	10				
<i>Lonicera japonica</i>	Vine	FACU	5				

% Dominant species FAC or wetter: 40% Prevalence Index: 3.4
 NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER NOT MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-16	10YR 5/4	100						LOAM
16-20	10YR 6/4	100						LOAM

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Umbric Surface (F13) <input type="checkbox"/> Piedmont Floodplain Soils (F19)	Indicators for Problematic Hydric Soils <input type="checkbox"/> 2cm Muck (A10) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other
---	---	--	--

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

Remarks: **SOIL PARAMETER NOT MET.**

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 13



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514793
 Site Longitude: START: -77.182551° END: -77.164914
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

UPLAND IN DEPRESSION IN EASTERN PORTION OF PROJECT CORRIDOR;

Hydrophytic Vegetation is Present: <input checked="" type="checkbox"/>	Normal Circumstances: <input checked="" type="checkbox"/>	NWI Classification: N/A
Hydric Soils are Present: <input type="checkbox"/>	Disturbed Parameters (see Remarks): <input type="checkbox"/>	Local Relief: CONCAVE
Wetland Hydrology is Present: <input checked="" type="checkbox"/>	Problematic Parameters (see Remarks): <input type="checkbox"/>	Landform: FLAT
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): <input type="checkbox"/>	Slope %: 0-1

Hydrology Parameter:

Primary Indicators:	Secondary Indicators:
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> True Aquatic Plants (B14)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other	

Water Depths (inches):
 Surface Water: _____
 Water Table: _____
 Saturated soil: 3

Remarks: HYDROLOGY PARAMETER MET.

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Platanus occidentalis</i>	Tree	FACW	20	<i>Diospyros virginiana</i>	Sapling	FAC	5
<i>Betula nigra</i>	Tree	FACW	20	<i>Allium vineale</i>	Herbaceous	FACU	5
<i>Carpinus caroliniana</i>	Sapling	FAC	15				
<i>Platanus occidentalis</i>	Sapling	FACW	10				
<i>Pyrus calleryana</i>	Sapling	UPL	10				
<i>Fraxinus pennsylvanica</i>	Shrub	FACW	10				
<i>Rosa multiflora</i>	Shrub	FACU	5				
<i>Ficaria verna</i>	Herbaceous	FAC	25				
<i>Lonicera japonica</i>	Vine	FACU	5				

% Dominant species FAC or wetter: 67% Prevalence Index: 2.8

NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: VEGETATION PARAMETER MET.

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-3	10YR 4/4	100						CLAY LOAM
3-12	10YR 5/8	90		10YR 3/3	10	D	M	CLAY LOAM
12-20	10YR 6/6	100						CLAY LOAM

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils

- 2cm Muck (A10)
- Coast Prairie Redox (A16)
- Piedmont Floodplain Soils (F19)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other

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

Remarks: SOIL PARAMETER NOT MET.

Wetland Determination Data Form - Eastern Mountains and Piedmont Region

Sampling Point Number: 14



Project: GEORGE T. SNYDER TRAIL
 Applicant: CITY OF FAIRFAX
 City/County: CITY OF FAIRFAX
 State: VIRGINIA
 Investigator(s): J. MANN & B. YOUNG
 Date: 3/12/2019

Section/Township/Range: N/A
 Subregion (LRR or MLRA): LRR P
 Site Latitude: START: 38.514667° END: 38.514794
 Site Longitude: START: -77.182551° END: -77.164915
 Soil Map Unit Name: CODORUS AND HATBORO SOILS

Summary of Findings:

UPLAND IN EASTERN PORTION OF PROJECT CORRIDOR NEAR FLAG BYR-23;

Hydrophytic Vegetation is Present: <u>X</u>	Normal Circumstances: <u>X</u>	NWI Classification: <u>N/A</u>
Hydric Soils are Present: _____	Disturbed Parameters (see Remarks): _____	Local Relief: <u>NONE</u>
Wetland Hydrology is Present: <u>X</u>	Problematic Parameters (see Remarks): _____	Landform: <u>TOE OF SLOPE</u>
Sampled Area is within a Wetland:	Atypical Climate/Hydrology (see Remarks): _____	Slope %: <u>1-2</u>

Hydrology Parameter:

Primary Indicators:		Secondary Indicators:	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other		

Water Depths (inches):
 Surface Water: _____
 Water Table: 11
 Saturated soil: 1

Remarks: **HYDROLOGY PARAMETER MET.**

Vegetation Parameter:

Dominant Species	Stratum	IND	%	Non-Dominant Species	Stratum	IND	%
<i>Platanus occidentalis</i>	Tree	FACW	40	<i>Carya tomentosa</i>	Tree	UPL	10
<i>Acer rubrum</i>	Tree	FAC	15	<i>Fraxinus pennsylvanica</i>	Shrub	FACW	10
<i>Acer rubrum</i>	Sapling	FAC	10				
<i>Rosa multiflora</i>	Shrub	FACU	30				
<i>Acer rubrum</i>	Shrub	FAC	25				
<i>Ficaria verna</i>	Herbaceous	FAC	60				
<i>Allium vineale</i>	Herbaceous	FACU	15				
<i>Lonicera japonica</i>	Vine	FACU	15				

% Dominant species FAC or wetter: 63% Prevalence Index: 3.1

NOTE: SPECIES INDICATOR STATUS ACCORDING TO 2016 NATIONAL WETLAND PLANT LIST Calculated using all species present.

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

Remarks: **VEGETATION PARAMETER MET.**

Soil Parameter:

Depth (inches)	Matrix			Redox Features				Texture
	Color (Moist)	%		Color (Moist)	%	Type	Loc	
0-5	10YR 5/4	100						LOAM
5-16	10YR 5/6	95		10YR 6/8	5	C	M	LOAM
16-20	10YR 5/1	90		10YR 5/8	10	C	M	LOAM

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Matrix (F3)	Indicators for Problematic Hydric Soils
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> Umbric Surface (F13)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		

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

Remarks: **SOIL PARAMETER NOT MET.**

ATTACHMENT D

Threatened and Endangered Species



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date: 1/24/2020

Self-Certification Letter

Project Name: George T. Snyder Trail

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in:

- “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR § 17.40(o) [as determined through the Information, Planning, and Consultation System (IPaC) northern long-eared bat assisted determination key]; and/or
- “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat.

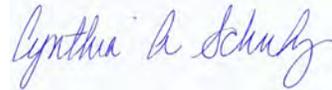
We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the determinations described above for proposed and listed species and proposed and designated critical habitat. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Troy Andersen of this office at (804) 824-2428.

Sincerely,

A handwritten signature in blue ink that reads "Cynthia A. Schulz". The signature is written in a cursive style and is positioned above the printed name and title.

Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package



United States Department of the Interior



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

In Reply Refer To:

January 24, 2020

Consultation Code: 05E2VA00-2020-SLI-1635

Event Code: 05E2VA00-2020-E-04456

Project Name: George T. Snyder Trail

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

Attachment(s):

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

Official Species List

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

This species list is provided by:

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

Project Summary

Consultation Code: 05E2VA00-2020-SLI-1635

Event Code: 05E2VA00-2020-E-04456

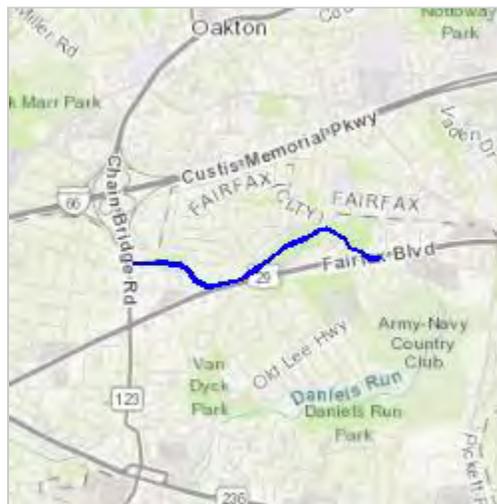
Project Name: George T. Snyder Trail

Project Type: RECREATION CONSTRUCTION / MAINTENANCE

Project Description: The completion of a two mile trail.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.86368316513065N77.29297889357912W>



Counties: Fairfax, VA

Endangered Species Act Species

There is a total of 0 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.

Critical habitats

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

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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

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

VaFWIS Search Report

Compiled on 2/20/2019, 2:29:31 PM

[Help](#)

Known or likely to occur within a **2 mile radius around point 38.8625940 -77.2988688**
in **059 Fairfax County, 600 Fairfax City, VA**

[View Map of Site Location](#)

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

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060029	FT	IIa	Lance, yellow	Elliptio lanceolata		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA,HU6
060006	SE	Ib	Floater, brook	Alasmodonta varicosa		BOVA
030062	ST	Ia	Turtle, wood	Glyptemys insculpta		BOVA,HU6
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
040379	ST	Ia	Sparrow, Henslow's	Ammodramus henslowii		BOVA
100155	ST	Ia	Skipper, Appalachian grizzled	Pyrgus wyandot		BOVA,HU6
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA,HU6
030012	CC	IVa	Rattlesnake, timber	Crotalus horridus		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA,HU6
040040		Ia	Ibis, glossy	Plegadis falcinellus		BOVA,HU6
040306		Ia	Warbler, golden-winged	Vermivora chrysoptera		BOVA
100248		Ia	Fritillary, regal	Speyeria idalia idalia		BOVA,HU6
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA,HU6
070027		Ic	Amphipod, Northern Virginia well	Stygobromus phreaticus		HU6
040052		IIa	Duck, American black	Anas rubripes		BOVA,HU6
040033		IIa	Egret, snowy	Egretta thula		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040181		IIa	Tern, common	Sterna hirundo		BOVA,HU6

040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA,HU6
040140		IIa	Woodcock, American	Scolopax minor		BOVA,HU6
060071		IIa	Lampmussel, yellow	Lampsilis cariosa		BOVA
040203		IIb	Cuckoo, black-billed	Coccyzus erythrophthalmus	Potential	BOVA,BBA
040105		IIb	Rail, king	Rallus elegans		BOVA,HU6
040304		IIc	Warbler, Swainson's	Limnothlypis swainsonii		BOVA,HU6
070020		IIc	Amphipod, Pizzini's	Stygobromus pizzinii		HU6
100154		IIc	Butterfly, Persius duskywing	Erynnis persius persius		BOVA,HU6

To view **All 704 species** [View 704](#)

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

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Wildlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;
b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

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

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Impediments to Fish Passage

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Species Observations (99 records - displaying first 20)
[View Map of All Query Results
Species Observations](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE *	Highest Tier **	
613529	SppObs	Aug 25 2011	Danielle; Wynne Shannon; Curtis LeAnne; Astin Takisha; Cannon	12		III	Yes
301202	SppObs	Oct 16 2003	Mike Mangold (Principle Permittee), U. S. F. W. S	7		III	Yes
364426	SppObs	Jan 1 1900		1		III	Yes
364489	SppObs	Jan 1 1900		1		III	Yes
613321	SppObs	Dec 31 2011	Paul; Woodward Joan ; Woodward	9		IV	Yes
613835	SppObs	Oct 4 2011	Nicholas; Newberry Frederick; Atwood	7		IV	Yes
608611	SppObs	Dec 31 2010	Paul; Woodward Joan; Woodward	13		IV	Yes
601936	SppObs	Dec 2 2009	Paul; Woodward Joan ; Woodward	18		IV	Yes
603536	SppObs	Dec 31 2008	Paul ; Woodward Joan ; Woodward	18		IV	Yes
603120	SppObs	Dec 31 2007	Paul ; Woodward Joan ; Woodward	17		IV	Yes
307445	SppObs	Jun 26 2004	Pete Marra	1		IV	Yes
304235	SppObs	May 9 2002	Peter Marra	4		IV	Yes
304234	SppObs	Jul 10 2001	Peter Marra	5		IV	Yes

65588	SppObs	Jan 1 1999	FREDERICK D. ATWOOD (PRINCIPLE PERMITTEE)	3		IV	Yes
55801	SppObs	Jan 1 1900	FREDERICK ATWOOD, FLINT HILL SCHOOL	7		IV	Yes
620302	SppObs	Nov 12 2013	Joseph; Kolowski Kristorfer; Helgen	1			Yes
620014	SppObs	Nov 9 2013	Joseph; Kolowski Kristorfer; Helgen	1			Yes
620701	SppObs	Nov 8 2013	Joseph; Kolowski Kristorfer; Helgen	1			Yes
613842	SppObs	Dec 5 2011	Nicholas; Newberry Frederick; Atwood	1			Yes
613841	SppObs	Nov 30 2011	Nicholas; Newberry Frederick; Atwood	1			Yes

Displayed 20 Species Observations

Selected 99 Observations [View all 99 Species Observations](#)

Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (5 records)

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

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
52194	Fairfax, CE	62		III	Yes
52192	Fairfax, NE	63		III	Yes
52191	Fairfax, NW	51		III	Yes
52206	Vienna, SE	54		II	Yes
52205	Vienna, SW	53		III	Yes

Public Holdings:

N/A

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

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
059	Fairfax	559	FESE	I

600	Fairfax City	450	FTSE	I
-----	------------------------------	-----	------	---

USGS 7.5' Quadrangles:

Fairfax
Vienna

USGS NRCS Watersheds in Virginia:

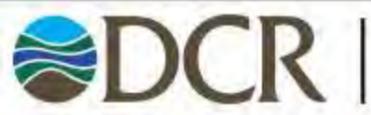
N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
PL22	Difficult Run	67	ST	I
PL29	Pohick Creek	75	ST	I
PL30	Accotink Creek	81	SE	I
PL46	Lower Bull Run	69	ST	I

Compiled on 2/20/2019, 2:29:31 PM I960777.0 report=all searchType= R dist= 3218 poi= 38.8625940 -77.2988688

PixelSize=64; Anadromous=0.039276; BBA=0.084595; BECAR=0.02278; Bats=0.022754; Buffer=0.097157; County=0.091266; HU6=0.073938; Impediments=0.023414; Init=0.156726; PublicLands=0.030221; Quad=0.0477; SppObs=0.284163; TEWaters=0.027997; TierReaches=0.037266; TierTerrestrial=0.049919; Total=1.308736; Tracking_BOVA=0.245594; Trout=0.025798; huva=0.035237



County:

- Emporia (City)
- Essex
- Fairfax
- Fairfax (City)

[Click here to view county map](#)

Physiographic Province:

- Select All
- Allegheny Mountains
- Cumberland Mountains
- Northern Blue Ridge

[Click here to view province map](#)

Watershed (8 digit HUC):

- 02070010 - Middle Potomac-Anacostia-Occoquan
- 02070011 - Lower Potomac River
- 02080101 - Lower Chesapeake Bay
- 02080102 - Great Wicomico-Piankatank

[Click here to view watershed map](#)

Subwatershed (12 digit HUC):

- Loading

[Click here to view subwatershed map](#)

Planning District:

- Select All
- Accomack-Northampton
- Central Shenandoah
- Commonwealth Regional Council

[Click here to view planning district map](#)

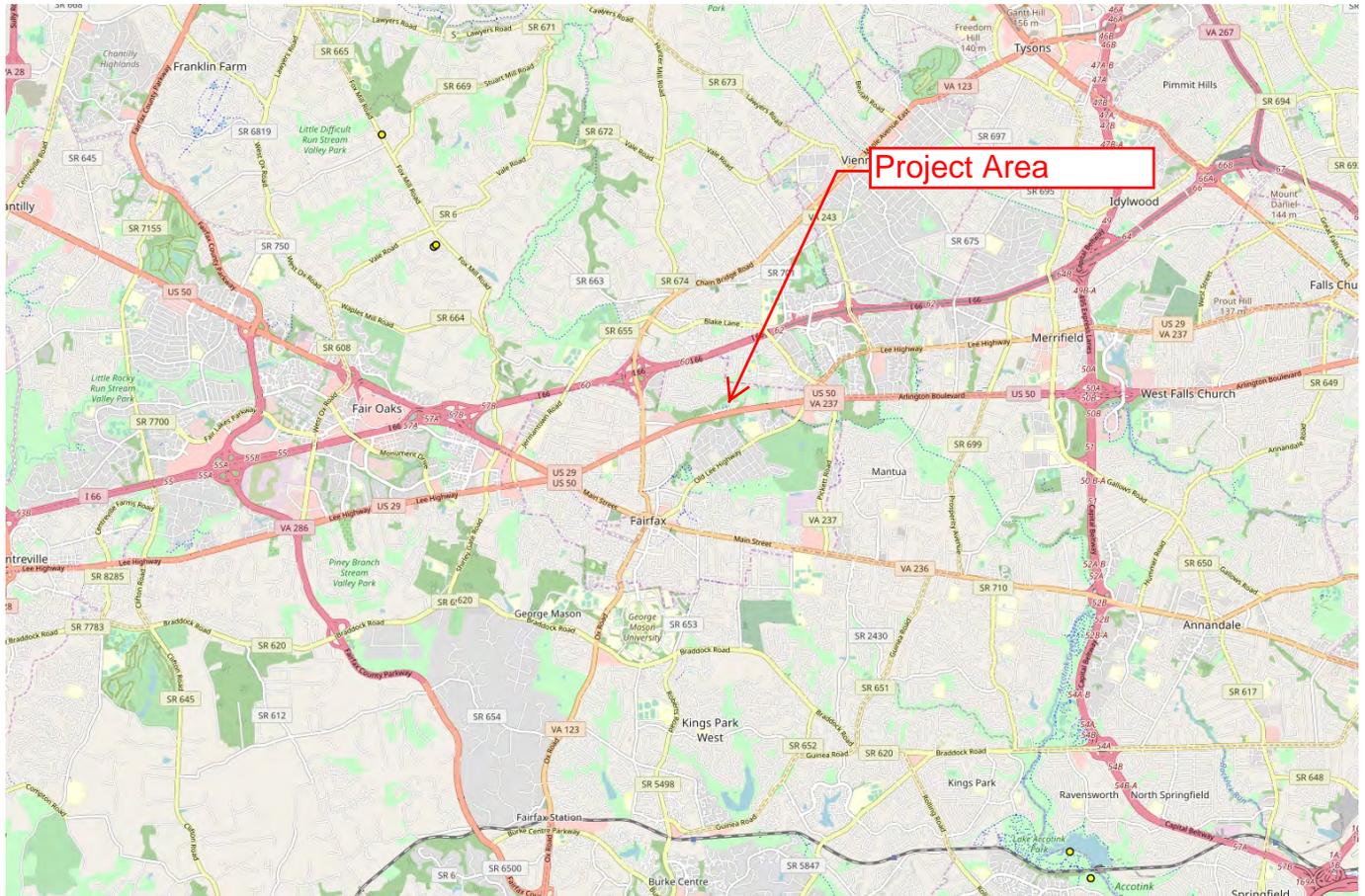
Virginia Coastal Zone:

- Select All
- Yes
- No

[Click here to view coastal zone map](#)



CCB Mapping Portal



Layers: VA Eagle Nest Locator

Map Center [longitude, latitude]: [-77.30323791503906, 38.85167344209855]

Map Link:

https://ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&zoom=13&lat=38.85167344209855&lng=-77.30323791503906&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%29

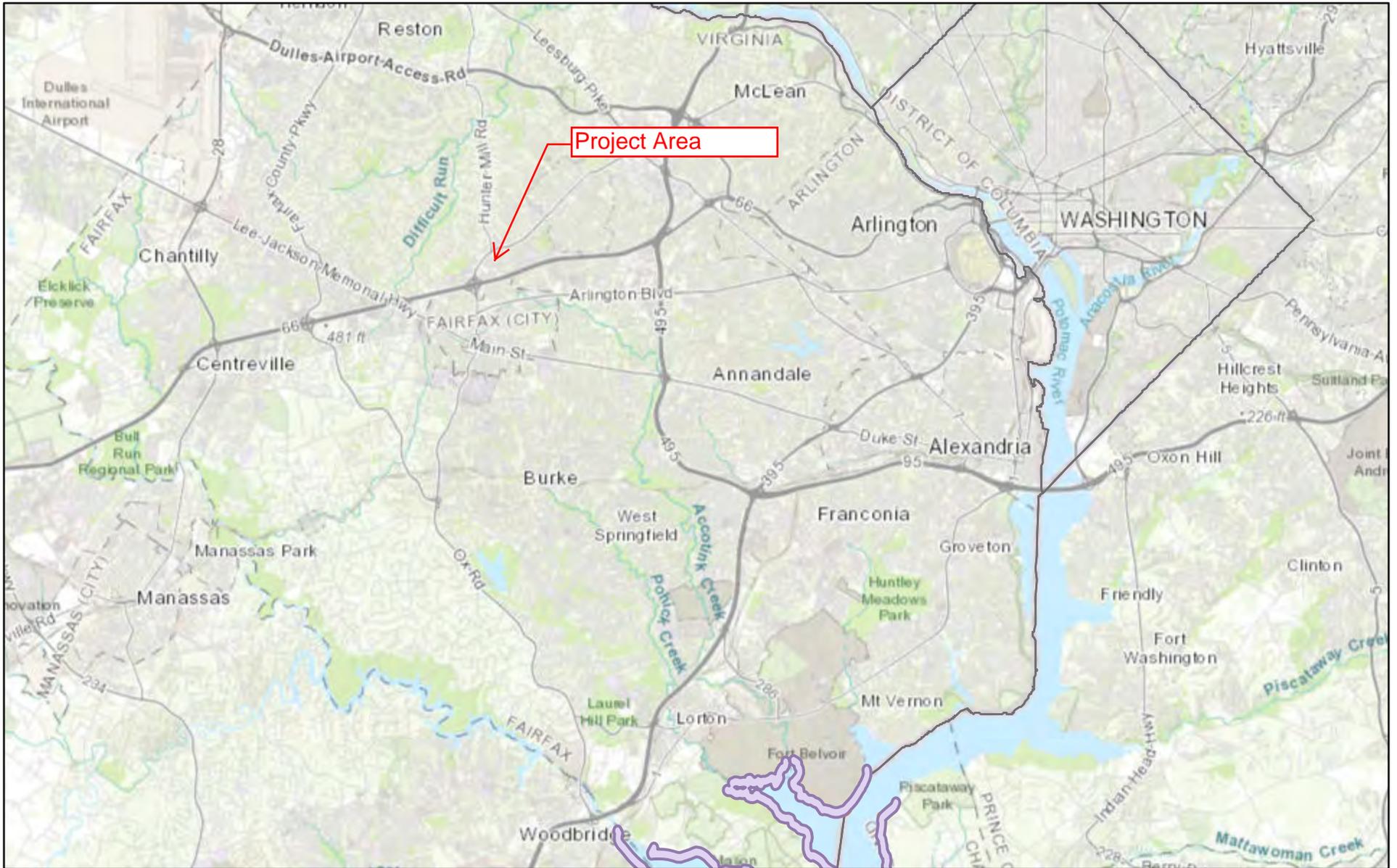
Report Generated On: 02/20/2019

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the [Data Use Agreement](#), to ensure compliance with our data use policies. For additional data access questions, view our [Data Distribution Policy](#), or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Report generated by [The Center for Conservation Biology Mapping Portal](#).

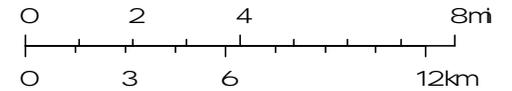
To learn more about CCB visit ccbbirds.org or contact us at info@ccbbirds.org

George T. Snyder Trail



February 20, 2019

1:288,895



County of Fairfax, VITA, Esti, HERE, Garmin, USGS, NGA, EPA, USDA

Species Conclusions Table

Project Name: George T. Snyder Trail

Date: 1/24/2020

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Northern long-eared bat (<i>Myotis septentrionalis</i>)	Potential habitat present and no current survey conducted	May affect	Relying upon the findings of the 1/5/2016 Programmatic Biological Opinion for Final 4(d) Rule on the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions to fulfill our project-specific section 7 responsibilities.
Critical habitat	No critical habitat present	No effect	
Bald eagle	Unlikely to disturb nesting bald eagles, does not intersect with an eagle concentration area	No Eagle Act permit required	

ATTACHMENT E
Hazardous Materials

VIRGINIA DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS DUE DILIGENCE CERTIFICATION FOR LOCALLY ADMINISTERED PROJECTS (EQ-121)	FORM EQ-121 (Revised 2/27/09)
	UPC: 112816
	Project: George T. Snyder Trail

I. APPLICABILITY:

This form must be completed by the LPA and submitted to the VDOT District Environmental Manager who will use this as documentation to support the Environmental Certification (Form EQ-103) and/or PS&E Re-evaluation (Form EQ-200) for any construction project. No project will receive certification to advance to construction until the form is received.

II. CONDITIONS:

The LPA shall complete this form when all hazardous materials-related issues have been identified and addressed for the project. It is not necessary that all hazardous materials issued be resolved prior to submission of this form, however, a plan must be in place to ensure resolution. This form must be submitted prior to acquiring project Right-of-Way. All existing right of way, or properties to be acquired for use as right of way, must receive an appropriate level of study. This includes existing VDOT right of way, locality-owned, proffered, or donated properties.

III. CERTIFICATION:

I hereby certify that:

- (1) The City of Fairfax has performed studies, analyses, reviews and/or investigations of hazardous materials-related issues for all properties that it has acquired or intends to acquire for the project. Such studies, investigations, etc. constitute an appropriate level of inquiry to identify the likely presence of any hazardous substances or petroleum products or conditions that indicate an existing release, a past release, or the material threat of a release of hazardous substances into the soil, groundwater or surface water of the property or adjacent properties, or the presence of such impairments associated with buildings or structures. The following lists the consultants and reports that were utilized in the conduct of the due diligence studies:

Consultant	Title of Consultant Report	Report Date
Stantec	VEGIS Map	01/24/2020

- (2) (Choose one of the following):

- No potential or actual contaminated environmental media or other environmental impairments that would affect construction were identified within the project right-of-way.
- Actual or potential environmental impairments have been noted on the following properties and as indicated, a cost estimate(s) of potential remediation/closure activities to meet state and/or federal regulations is provided as well as an indicator of any coordination made with the Virginia Department of Environmental Quality and/or the U.S. Environmental Protection Agency:

Property	Parcel Number	Agency Coordination?	Closure/Remediation Estimate
		<input type="checkbox"/> Yes <input type="checkbox"/> No	\$
		<input type="checkbox"/> Yes <input type="checkbox"/> No	\$
		<input type="checkbox"/> Yes <input type="checkbox"/> No	\$
		<input type="checkbox"/> Yes <input type="checkbox"/> No	\$
		<input type="checkbox"/> Yes <input type="checkbox"/> No	\$

		<input type="checkbox"/> Yes	<input type="checkbox"/> No	\$
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	\$

Attach additional pages as necessary.

- (3) Where actual or potential environmental impairments have been identified, appropriate actions have been taken (or will be taken) to address these issues in terms of avoidance, containment, management, minimization or remediation. Where such actions are required to be taken during construction, appropriate contract provisions have been/will be developed to incorporate those costs as pay items in the contract.
- (4) Estimated costs for regulatory closure/remediation have been/will be taken into consideration in determining fair market value for properties to be acquired.
- (5) All structures will be inspected for the presence of asbestos-containing materials (ACM) and any regulated ACM will be removed in accordance with state and federal requirements.
- (6) The construction contractor will be made aware of any environmental issues that may be encountered during construction and will be provided access to any study results to assist the Contractor in developing and implementing appropriate Employee Health and Safety measures.

Certification provided on behalf of the City of Fairfax
by:



Cathy Saldago
Local Official

Date: 01/24/2020

Director of Parks and Recreation
Title

