

# 1977 - Richmond Highway Voluntary Land Acquisition

## Application Details

Funding Opportunity: 1447-Virginia Community Flood Preparedness Fund - Project Grants - CY23 Round 4  
Funding Opportunity Due Date: Nov 12, 2023 11:59 PM  
Program Area: Virginia Community Flood Preparedness Fund  
Status: Under Review  
Stage: Final Application  
  
Initial Submit Date: Nov 10, 2023 6:36 PM  
Initially Submitted By: Joni Calmbacher  
Last Submit Date:  
Last Submitted By:

## Contact Information

### Primary Contact Information

Active User\*: Yes  
Type: External User  
Name\*: Ms. Joni Middle Name Calmbacher  
Salutation First Name Last Name  
Title:  
Email\*: joni.calmbacher@fairfaxcounty.gov  
Address\*: 12000 Government Center Parkway  
Suite 449  
  
Fairfax Virginia 22305  
City State/Province Postal Code/Zip  
Phone\*: 703-324-2183 Ext.  
Phone ##### #####  
Fax: ##### ##### #####  
Comments:

### Organization Information

Status\*: Approved  
Name\*: FAIRFAX COUNTY  
Organization Type\*: Local Government  
Tax ID\*: 54-0787833  
Unique Entity Identifier (UEI)\*: 074837626

**Organization Website:**

**Address\*:**

12000 Government Center Parkway

Suite 552

Fairfax Virginia 22035-  
City State/Province Postal Code/Zip

**Phone\*:**

(703) 324-2183 Ext.

#### #### ####

**Fax:**

#### #### ####

**Benefactor:**

**Vendor ID:**

**Comments:**

## VCFPF Applicant Information

### *Project Description*

**Name of Local Government\*:** Fairfax County, Virginia

Your locality's CID number can be found at the following link: [Community Status Book Report](#)

**NFIP/DCR Community Identification Number (CID)\*:** 515525

If a state or federally recognized Indian tribe,

**Name of Tribe:**

**Authorized Individual\*:** Bryan Hill  
First Name Last Name

**Mailing Address\*:** 12000 Government Center Parkway  
Address Line 1

Suite 552  
Address Line 2  
Fairfax Virginia 22305  
City State Zip Code

**Telephone Number\*:** 703-324-2531

**Cell Phone Number\*:** 703-324-2531

**Email\*:** [CEXBryanHill@fairfaxcounty.gov](mailto:CEXBryanHill@fairfaxcounty.gov)

Is the contact person different than the authorized individual?

**Contact Person\*:** Yes

**Contact:** Joni Calmbacher  
First Name Last Name

12000 Government Center Parkway  
Address Line 1  
Suite 449  
Address Line 2  
Fairfax Virginia 22305  
City State Zip Code

**Telephone Number:** 703-324-2183

**Cell Phone Number:** 703-324-2183

**Email Address:** [joni.calmbacher@fairfaxcounty.gov](mailto:joni.calmbacher@fairfaxcounty.gov)

Enter a description of the project for which you are applying to this funding opportunity

**Project Description\*:**

8800 Richmond Highway, Alexandria, VA 22309, is an approximately eight-acre area of land in the Mount Vernon Magisterial District. The County would restore the stream natural buffer with native landscaping, provide tree plantings and preservation, and conduct invasive plant management.

Low-income geographic area means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Is the proposal in this application intended to benefit a low-income geographic area as defined above?

**Benefit a low-income geographic area\*:** No

Information regarding your census block(s) can be found at [census.gov](http://census.gov)

**Census Block(s) Where Project will Occur\*:** 1000, 1008, 1012

**Is Project Located in an NFIP Participating Community?\***: Yes

**Is Project Located in a Special Flood Hazard Area?\***: Yes

**Flood Zone(s) (if applicable):** AE

**Flood Insurance Rate Map Number(s) (if applicable):** 51059C0385E

## Eligibility CFPF - Round 4 - Projects

### **Eligibility**

Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these)?

**Local Government\*:** Yes  
Yes - Eligible for consideration  
No - Not eligible for consideration

Does the local government have an approved resilience plan and has provided a copy or link to the plan with this application?

**Resilience Plan\*:** Yes  
Yes - Eligible for consideration under all categories  
No - Eligible for consideration for studies, capacity building, and planning only

If the applicant is not a town, city, or county, are letters of support from all affected local governments included in this application?

**Letters of Support\*:** N/A  
Yes - Eligible for consideration  
No - Not eligible for consideration  
N/A- Not applicable

Has this or any portion of this project been included in any application or program previously funded by the Department?

**Previously Funded\*:** No  
Yes - Not eligible for consideration  
No - Eligible for consideration

Has the applicant provided evidence of an ability to provide the required matching funds?

**Evidence of Match Funds\*:** Yes  
Yes - Eligible for consideration  
No - Not eligible for consideration  
N/A- Match not required

## Scoring Criteria for Flood Prevention and Protection Projects - Round 4

### **Scoring**

Category Scoring:

Hold CTRL to select multiple options

**Project Category\*:**

Acquisition of developed property consistent with an overall comprehensive local or regional plan for purposes of allowing inundation, retreat, or acquisition of structures and where the flood mitigation benefits will be achieved as a part of the same project as the property acquisition.

Is the project area socially vulnerable? (based on ADAPT Virginia's Social Vulnerability Index Score)

**Social Vulnerability Scoring:**

Very High Social Vulnerability (More than 1.5)

High Social Vulnerability (1.0 to 1.5)

Moderate Social Vulnerability (0.0 to 1.0)

Low Social Vulnerability (-1.0 to 0.0)

Very Low Social Vulnerability (Less than -1.0)

**Socially Vulnerable\*:** Moderate Social Vulnerability (0.0 to 1.0)

Is the proposed project part of an effort to join or remedy the community's probation or suspension from the NFIP?

**NFIP\*:** No

**Is the proposed project in a low-income geographic area as defined below?**

"Low-income geographic area" means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

**Low-Income Geographic Area\*:** No

Projects eligible for funding may also reduce nutrient and sediment pollution to local waters and the Chesapeake Bay and assist the Commonwealth in achieving local and/or Chesapeake Bay TMDLs. Does the proposed project include implementation of one or more best management practices with a nitrogen, phosphorus, or sediment reduction efficiency established by the Virginia Department of Environmental Quality or the Chesapeake Bay Program Partnership in support of the Chesapeake Bay TMDL Phase III Watershed Implementation Plan?

**Reduction of Nutrient and Sediment Pollution\*:** No

**Pollution\*:**

Does this project provide ?community scale? benefits?

**Community Scale Benefits\*:** More than one census block

Expected Lifespan of Project

**Expected Lifespan of Project\*:** Over 20 Years

**Comments:**

## Scope of Work - Projects - Round 4

### **Scope of Work**

**Upload your Scope of Work**

Please refer to Part IV, Section B. of the grant manual for guidance on how to create your scope of work

**Scope of Work\*:** [Round 4 - 515525\\_Fairfax\\_Co\\_Project Richmond Hwy VolAcq\\_FINAL.pdf](#)

**Comments:**

Grant Application Report - See Scope of Work

### **Budget Narrative**

**Budget Narrative Attachment\*:** [Round 4 - 515525\\_Fairfax\\_Co\\_Project Richmond Hwy VolAcq\\_FINAL.pdf](#)

**Comments:**

Grant Application Report - See Budget Narrative

## Scope of Work Supporting Information - Projects

### **Supporting Information - Projects**

Provide population data for the local government in which the project is taking place

**Population\*:** 1170000.00

Provide information on the flood risk of the project area, including whether the project is in a mapped floodplain, what flood zone it is in, and when it was last mapped. If the property or area around it has been flooded before, share information on the dates of past flood events and the amount of damage sustained

**Historic Flooding data and Hydrologic Studies\*:** See Grant Application Report.pdf

Include studies, data, reports that demonstrate the proposed project minimizes flood vulnerabilities and does not create flooding or increased flooding (adverse impact) to other properties

**No Adverse Impact\*:** See Grant Application Report.pdf

Include supporting documents demonstrating the local government's ability to provide its share of the project costs. This must include an estimate of the total project cost, a description of the source of the funds being used, evidence of the local government's ability to pay for the project in full or quarterly prior to reimbursement, and a signed pledge agreement from each contributing organization

**Ability to Provide Share of Cost\*:** 5\_CEX Match Leter.pdf

A benefit-cost analysis must be submitted with the project application

**Benefit-Cost Analysis\*:** 13\_BRCReport\_8800.pdf

Provide a list of repetitive loss and/or severe repetitive loss properties. Do not provide the addresses for the properties, but include an exact number of repetitive loss and/or severe repetitive loss structures within the project area

**Repetitive Loss and/or Severe Repetitive Loss Properties\*:** See Grant Application Report.pdf

Describe the residential and commercial structures impacted by this project, including how they contribute to the community such as historic, economic, or social value. Provide an exact number of residential structures and commercial structures in the project area

**Residential and/or Commercial Structures\*:**

See Grant Application Report

If there are critical facilities/infrastructure within the project area, describe each facility

**Critical Facilities/Infrastructure\*:**

See Grant Application Report

Explain the local government's financial and staff resources. How many relevant staff members does the local government have? To what relevant software does the local government have access? What are the local government's capabilities?

**Financial and Staff Resources\*:**

See Grant Application Report

Identify and describe the goals and objectives of the project. Include a description of the expected results of the completed project and explain the expected benefits of the project. This may include financial benefits, increased awareness, decreased risk, etc.

**Goals and Objectives\*:**

See Grant Application Report

Outline a plan of action laying out the scope and detail of how the proposed work will be accomplished with a timeline identifying expected completion dates. Determine milestones for the project that will be used to track progress. Explain what deliverables can be expected at each milestone, and what the final project deliverables will be. Identify other project partners

**Approach, Milestones, and Deliverables\*:** See Grant Application Report.pdf

Where applicable, briefly describe the relationship between this project and other past, current, or future resilience projects. If the applicant has received or applied for any other grants or loans, please identify those projects, and, if applicable, describe any problems that arose with meeting the obligations of the grant and how the obligations of this project will be met

**Relationship to Other Projects\*:**

See Grant Application Report

For ongoing projects or projects that will require future maintenance, such as infrastructure, flood warning and response systems, signs, websites, or flood risk applications, a maintenance, management, and monitoring plan for the projects must be provided

**Maintenance Plan\*:** See Grant Application Report.pdf

Describe how the project meets each of the applicable scoring criteria contained in Appendix B. Documentation can be incorporated into the Scope of Work Narrative

**Criteria\*:**

See Grant Application Report

## Budget

### **Budget Summary**

**Grant Matching Requirement\***: Projects that will result in nature-based solutions - Fund 70%/Match 30%

**Total Project Amount\*:** \$4,000,000.00

**REQUIRED Match Percentage Amount:** \$1,200,000.00

### **BUDGET TOTALS**

Before submitting your application be sure that you meet the match requirements for your project type.

**Match Percentage:** 30.00%  
Verify that your match percentage matches your required match percentage amount above.

**Total Requested Fund Amount:** \$2,800,000.00

**Total Match Amount:** \$1,200,000.00

**TOTAL:** \$4,000,000.00

### **Personnel**

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

### **Fringe Benefits**

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

### **Travel**

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

### **Equipment**

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

### **Supplies**

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

### **Construction**

Description	Requested Fund Amount	Match Amount	Match Source
Demolition Costs	\$315,000.00	\$135,000.00	Stream and Water Quality CIP Budget
	<b>\$315,000.00</b>	<b>\$135,000.00</b>	

#### Contracts

Description	Requested Fund Amount	Match Amount	Match Source
Design Contract	\$35,000.00	\$15,000.00	Stream and Water Quality CIP Budget
	<b>\$35,000.00</b>	<b>\$15,000.00</b>	

#### Maintenance Costs

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

#### Pre-Award and Startup Costs

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

#### Other Direct Costs

Description	Requested Fund Amount	Match Amount	Match Source
Acquisition Costs	\$2,450,000.00	\$1,050,000.00	Stream and Water Quality CIP Budget
	<b>\$2,450,000.00</b>	<b>\$1,050,000.00</b>	

## Long and Short Term Loan Budget - Projects - VCFPF

#### Budget Summary

Are you applying for a short term, long term, or no loan as part of your application?

If you are not applying for a loan, select "not applying for loan" and leave all other fields on this screen blank

**Long or Short Term\*:** Not Applying for Loan

**Total Project Amount:** \$0.00

**Total Requested Fund Amount:** \$0.00

**TOTAL:** \$0.00

#### Salaries

Description	Requested Fund Amount
No Data for Table	

#### Fringe Benefits

Description	Requested Fund Amount
No Data for Table	

#### Travel

Description	Requested Fund Amount
-------------	-----------------------

No Data for Table

#### *Equipment*

Description	Requested Fund Amount
-------------	-----------------------

No Data for Table

#### *Supplies*

Description	Requested Fund Amount
-------------	-----------------------

No Data for Table

#### *Construction*

Description	Requested Fund Amount
-------------	-----------------------

No Data for Table

#### *Contracts*

Description	Requested Fund Amount
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No Data for Table

#### *Other Direct Costs*

Description	Requested Fund Amount
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No Data for Table

### Supporting Documentation

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#### *Supporting Documentation*

Named Attachment	Required Description
Detailed map of the project area(s) (Projects/Studies)	Detailed Map
FIRMette of the project area(s) (Projects/Studies)	Firmette
Historic flood damage data and/or images (Projects/Studies)	See Grant Application Report
Alink to or a copy of the current floodplain ordinance	<a href="https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251v">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251v</a>
Maintenance and management plan for project	See Grant Application Report
Alink to or a copy of the current hazard mitigation plan	<a href="https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan.pdf">https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan.pdf</a>
Alink to or a copy of the current comprehensive plan	<a href="https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf">https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf</a>
Social vulnerability index score(s) for the project area	Vulnerability Map
Authorization to request funding from the Fund from governing body or chief executive of the local government	Match Letter
Signed pledge agreement from each contributing organization	
Maintenance Plan	See Grant Application Report
<i>Benefit-cost analysis must be submitted with project applications over \$2,000,000. in lieu of using the FEMA benefit-cost analysis tool, applicants may submit a narrative to benefits of a flood mitigation project and compares those benefits to its cost-effectiveness.</i>	
Benefit Cost Analysis	Benefit Cost Analysis
Other Relevant Attachments	Grant Application Report

#### **Letters of Support**

Description	File Name	Type	Size	Upload Date
No files attached.				

## Resilience Plan

### *Resilience Plan*

Description	File Name	Type	Size	Upload Date
Resilience Plan	<a href="#">515525_Fairfax_County_CFPF_Resilience_Plan_2021.10.25_reduced.pdf</a>	pdf	864 KB	11/10/2023 06:22 PM
Resilience Plan Approval	<a href="#">10_Resilience Plan APPROVAL.pdf</a>	pdf	346 KB	11/10/2023 06:23 PM

**FAIRFAX COUNTY**

**VIRGINIA COMMUNITY FLOOD  
PREPAREDNESS FUND  
RESILIENCE PLAN**



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## 1. Introduction

The Virginia Community Flood Preparedness Fund (CFPF) Resilience Plan for Fairfax County is comprised of a compilation of county adopted documents that meet the requirements outlined in the 2021 Grant Manual for the Virginia CFPF. Both regional and county specific documents have been included with most of the documents readily available through organizational websites. Subsequently, links to each document, as available, can be found at the end of each subsection.

## 2. Regional Strategies and Plans

The County has participated in regional efforts in the development of several regional strategies and plans to address resiliency, mitigation, and impacts of climate change. These are described below.

### A. Northern Virginia Hazard Mitigation Plan

The 2017 “Northern Virginia Hazard Mitigation Plan” was a regional effort involving nineteen counties, cities, and towns in the Northern Virginia region (Arlington County, Fairfax County, Loudoun County, Prince William County, City of Alexandria, City of Fairfax, City of Falls Church, City of Manassas, City of Manassas Park, Town of Dumfries, Town of Haymarket, Town of Herndon, Town of Leesburg, Town of Lovettsville, Town of Middleburg, Town of Purcellville, Town of Occoquan, Town of Round Hill and Town of Vienna). The plan was adopted by the County Board of Supervisors in April 2017 and outlines specific courses of action that communities intend to apply to reduce vulnerability and exposure to future hazards, including flooding events. The plans outlined were formulated through a systematic process centered on the participation of citizens, businesses, public officials, and other community stakeholders.

The purpose of the plan is to:

- Protect life, safety, and property by reducing the potential for future damages and economical losses that result from natural hazards;
- Make communities safer places to live, work and play;
- Demonstrate a local commitment to hazard mitigation principles; and
- Comply with state and federal legislative requirements for local multi-jurisdictional hazard mitigation plans.

[Link to Northern Virginia Hazard Mitigation Plan](#)

### B. Resilient Critical Infrastructure: A Roadmap for Northern Virginia

The Northern Virginia Regional Commission (NVRC) is a regional council of thirteen member local governments in the Northern Virginia suburbs of Washington DC (Arlington County, Fairfax County, Loudoun County, Prince William County, City of Alexandria, City of Fairfax, City of Falls Church, City of Manassas, City of Manassas Park, Town of Dumfries, Town of Herndon, Town of Leesburg, and Town of Vienna). As a result of projections of increased extreme precipitation events, more frequent and longer heat waves, and increased flooding from sea level rise and storm surge, NVRC formed a resiliency team who led the efforts in the development of the 2018 "Resilient Critical Infrastructure Roadmap for Northern Virginia" (Roadmap). The Roadmap is a planning framework to identify actions to potentially decrease the severity of future

consequences emanating from climate and extreme weather. The document outlines a series of objectives and strategies to achieve the goal of planning for resilience.

#### [Resilient Critical Infrastructure: A Roadmap for Northern Virginia](#)

#### C. [Regional Collaboration to Build Community Resilience in Northern Virginia](#)

The 2020 “Regional Collaboration to Build Community Resilience in Northern Virginia” continued the work of NVRC’s resiliency team (described above). Specifically, work included the development of an implementation plan, documentation of the economic impacts from extreme weather, and revisions to the Roadmap (described above). The Roadmap was revised to include two more objectives: maximize green infrastructure and ensure equitable access to resilient critical infrastructure.

#### [Link to Regional Collaboration to Build Community Resilience in Northern Virginia](#)

#### D. [Sea Level Rise: Impact on Northern Virginia](#)

As part of the NVRC’s efforts (described above), an interactive story map and dashboard was created in 2019 to convey the impact of sea level rise scenarios of 1 foot, 3 feet, and 5 feet. The map and dashboard include the number of parcels, acres and assessed property value impacted in Northern Virginia for each of the scenarios. Figure 1 depicts the impacts of 5 feet of sea level rise in the southern portion of the county.

#### [Link to Sea Level Rise: Impact on Northern Virginia](#)

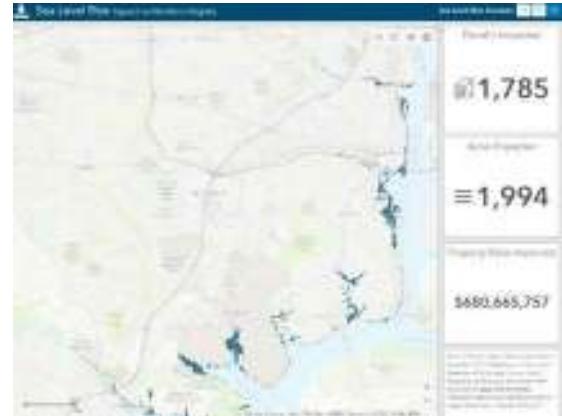


Figure 1: Sea Level Rise Story Map

### 3. County Strategies and Plans

In addition to regional efforts, the County has developed specific strategies, plans, and analyses specific to the areas within the county borders. These are described below.

#### A. [Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management](#)

Fairfax County’s Stormwater Management program is managed on a comprehensive watershed basis and consists of: Regulatory Compliance, Dam Safety and Facility Rehabilitation, Stream and Water Quality, Emergency and Flood Control, Conveyance System Rehabilitation, Contributory Funding Requirements, and Operational Support.

Each year, current and proposed projects are reevaluated in terms of projected costs and timing. The County’s Stormwater service district, established in FY 2010, provides a dedicated funding source for both operating and capital project requirements, by levying a service rate of \$0.0325 per \$100 of assessed real estate value. This revenue funds implementation of watershed master plans, public outreach efforts, stormwater monitoring activities, water quality improvements, stormwater conveyance system maintenance, regulatory requirements, and flood mitigation. An ultimate rate of \$0.0400 per \$100 of assessed value has been estimated to be required to fully support the stormwater program in the future.

The [Fairfax County Comprehensive Plan](#) includes the following established objectives:

- Provide for a comprehensive drainage improvement and stormwater management program to maximize property protection and environmental benefits throughout the watershed.
- Provide a system of drainage facilities that prevents or minimizes structure flooding, stream degradation and traffic disruption in an efficient, cost effective and environmentally sound manner.
- Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County.
- Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.
- Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.

The projects included and described in the Stormwater Management Capital Improvement Program align with the established Comprehensive Plan objectives.

[Link to Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management](#)

#### B. [Repetitive Loss Area Analysis](#)

Fairfax County has been participating in the National Flood Insurance Program since January 7, 1972, and in the Community Rating System (CRS) program since October 1, 1993. In September 2018, the County developed a “Repetitive Loss Area Analysis” using Section 510, Floodplain Management Planning, of the “2013 CRS Coordinator’s Manual” to enhance the program and potentially improve the associated credit. This analysis documented 77 repetitive loss properties and 21 repetitive loss areas in the county identified according to the principles outlined in FEMA’s CRS guidance titled *Mapping Repetitive Loss Areas*, dated August 15, 2008. Potential mitigation measures were recommended for each repetitive loss area and include elevation of structures, drainage improvements, levee construction, waterproofing/ floodproofing, floodwalls, and demolition and acquisition.

#### C. [Fairfax County Watershed Management Plan](#)

Fairfax County has developed comprehensive watershed management plans for each of the county's 30 watersheds. These are grouped into 11 major watershed management plan documents. A watershed management plan serves as a tool to identify and address the issues affecting our environment and to protect and restore the county's streams and other water resources.

The plans identify areas of opportunity for implementing both structural and non-structural improvement projects such as stream restorations, stormwater facility retrofits, community education and stewardship, streamside buffer enhancements and installation of green stormwater infrastructure (GSI). These plans were completed from February 2005 to February 2011.

[Link to Fairfax County Watershed Management Plans](#)

#### D. Fairfax County Pre-Disaster Recovery Plan

Fairfax County's "Pre-Disaster Recovery Plan" was finalized in April 2020 and guides county actions to recover from incidents and disasters, such as flooding events, in support of a resilient, safe, physically accessible, sustainable, and economically strong community. This plan establishes roles and responsibilities during recovery operations, as well as a concept of operations for the county. It is intended to be used in conjunction with established operational procedures, plans, and protocols. It fulfills Fairfax County's commitment to maintain readiness capabilities for all phases of emergency management, including the capability to recover from disasters as part of the National Incident Management System (NIMS).

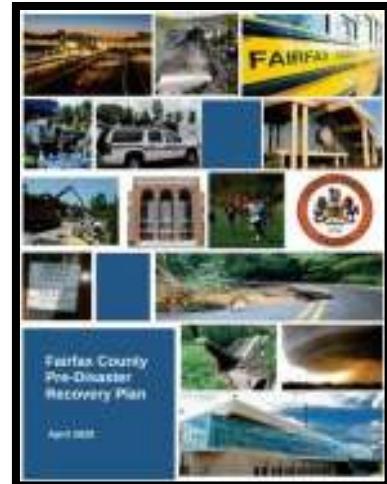


Figure 2: Pre-Disaster Recovery Plan Cover

[Link to Fairfax County Pre-Disaster Recovery Plan](#)

#### E. Fairfax County Floodplain Management Plan Progress Report

The "Floodplain Management Plan Progress Report" provides the county's progress on implementation of the flood mitigation actions of the Northern Virginia Hazard Mitigation Plan (see section on Regional Strategies and Plans) in response to FEMA requirements for the maintenance of the county's CRS program. This progress report provides details on the status of specific mitigation actions and was completed in July 2021.

[Link to Fairfax County Floodplain Management Plan Progress Report](#)

#### F. Fairfax County Environmental Vision

The county's Environmental Vision was first adopted in 2004 and updated in 2017 to incorporate additional policies, techniques and opportunities, changed regulations, and budget requirements and changes to county operations since the development of the initial vision document.

The Board of Supervisors has shaped its vision to protect and enhance the environment around two principles: 1) conservation of our limited natural resources must be interwoven into all government decisions; and 2) the Board must be committed to provide the necessary resources to protect and improve our environment for quality of life now and for future generations. The document demonstrates the county's leadership to protect and enhance the environment across seven core service areas: land use; transportation; water; waste management; parks and ecological resources; climate and energy; and environmental stewardship. Each of the service area describes existing and past county efforts followed by an area vision and supporting objectives.

[Link to Fairfax County Environmental Vision](#)

### 4. In-Progress Efforts

The following studies, documents, and efforts are currently in-progress and have not yet been adopted by the county. Their intent, objectives, and goals align with the county's plan for

flooding resiliency and are briefly described below. Additional details will be provided as they are available with subsequent CFPF Resilience Plan revisions.

A. [Resilient Fairfax](#)

The county is embarking on a formal effort to address climate adaptation and resilience. Resilient Fairfax is a holistic, coordinated approach to adaptation and resilience planning. This approach will include the development of a comprehensive Climate Adaptation and Resilience Plan for the county and community as well as the implementation of strategies to reduce risk to county residents, businesses, and infrastructure. The plan will also identify climate risks and vulnerabilities to develop adaptation and resilience strategies. The countywide plan will ensure the use of common baselines to assess climate impacts to meet the needs of all community members in an equitable manner. Plan development and documentation is an ongoing effort, with the final Climate Adaptation and Resilience Plan anticipated to be complete by summer 2022.

[Link to Resilient Fairfax Webpage](#)

B. [Countywide Regulatory Floodplain Mapping](#)

Fairfax County has initiated a project to complete modeling and mapping of the County's regulatory floodplain based on estimated ultimate land-use development conditions. This project will leverage and build on work completed by FEMA as part of their updates to the County's Special Flood Hazard Areas. Flows for hydraulic modeling will be developed from a detailed rainfall-runoff model that will allow incorporation of future rainfall estimates to assess potential impacts of climate change on the regulatory floodplain. A pilot for the Dogue Creek watershed is currently 60% complete, with the countywide work expected to be completed in approximately 3 years.

C. [Northern Virginia Coastal Storm Risk Study](#)

Fairfax County is part of an ongoing project, the Northern Virginia Coastal Storm Risk Management (CSR) Study to investigate coastal flooding problems, needs and potential solutions for the region. The Metropolitan Washington Council of Governments (MWCOG) is completing the study in partnership with the US Army Corps of Engineers (USACE). The study continues efforts of the 2015 North Atlantic Coast Comprehensive Study which identified the DC Metropolitan region, including Northern Virginia, as one of the nine high risk areas needing future analysis. The goal is to reduce coastal flood risk to people, properties, critical infrastructure, services and important resources in the study area, considering future climate and sea level change scenarios.

## 5. CFPF Resilience Plan Requirements

The strategies and plans documented and described in previous sections address the five elements of Resilience Plans as outlined in the 2021 Grant Manual for the Virginia CFPF. Table 1 provides a summary of the necessary plan elements and the corresponding regional or county plans and strategies that provide these elements.

Resilience Plan Elements (from 2021 CFPF Grant Manual)

1. It is project-based with projects focused on flood control and resilience.
2. It incorporates nature-based infrastructure to the maximum extent possible.
3. It includes considerations of all parts of a locality regardless of socioeconomics or race.
4. It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation.
5. Is based on the best available science, and incorporates climate change, sea level rise, storm surge (where appropriate), and current flood maps.

The grant manual states that resilience plans may refer to “documents when compiled address the elements of the definition”, which is the method employed here, to complete the resilience plan.

*Table 1: Required Resilience Plan Elements Comparison Table*

<u><b>Required Resilience Plan Elements</b></u>	<u><b>County Resilience Plan Components</b></u>								
	FY 2022 – FY 2026 Stormwater Capital Improvement Program	Northern Virginia Hazard Mitigation Plan	Resilient Critical Infrastructure: A Roadmap	Regional Collaboration to Build Community Resilience	Sea Level Rise: Impact on Northern Virginia	Repetitive Loss Area Analysis	Fairfax County Watershed Management Plans	Fairfax County Pre-Disaster Recovery Plan	Fairfax Environmental Vision
Project-based with projects focused on flood control and resilience.	X					X	X		
Incorporates nature-based infrastructure to the maximum extent possible.	X			X			X		X
Includes considerations of all parts of a locality regardless of socioeconomics or race.	X	X	X	X	X	X	X	X	X
Includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation.	X	X					X		
Based on the best available science, and incorporates climate change, sea level rise, storm surge (where appropriate), and current flood maps.		X	X	X	X	X			

Ann Jennings  
*Secretary of Natural and Historic  
 Resources and Chief Resilience Officer*

Clyde E. Cristman  
*Director*



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

January 10, 2022

Joni Calmbacher, PE, CFM  
 Project Manager II  
 DPWES, Stormwater Planning Division  
 Watershed Projects Implementation Branch – South  
 12000 Government Center Parkway Fairfax, VA 22035

RE: Fairfax County Resilience Plan Submission - CFPF

Dear Ms. Calmbacher,

Thank you for providing an overview of your Resilience Plan, and informing DCR of the various plans that Fairfax County will be utilizing to fulfill the Resilience Plan submission requirements. After careful review and consideration, the Virginia Department of Conservation and Recreation has deemed the Plan complete and meets all the criteria outlined in the 2021 Community Flood Preparedness Grant Manual. This approval will remain in effect for a period of three years, ending on January 11, 2025.

The following elements were evaluated as part of this review:

**1. Element 1: It is project-based with projects focused on flood control and resilience. DCR RESPONSE**

Meets criteria as written.

- a. Project-based: Fairfax County is divided into 30 watersheds which have been addressed in 11 major watershed management plans. Each of the watershed management plans contains projects and watershed management area restoration strategies. The *2017 Northern Virginia Hazard Mitigation Plan* was a regional effort involving nineteen counties, including Fairfax County, and outlines specific mitigation projects for each participating community in order to reduce vulnerability and exposure to future hazards, including flooding events. The *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* contains projects at various locations throughout Fairfax County. The projects included and described in the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* align with the established *Comprehensive Plan* objectives. The *Resilient Critical*

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

*Infrastructure Roadmap for Northern Virginia* contains a database of resilience projects throughout northern Virginia, including Fairfax County.

**2. Element 2: It incorporates nature-based infrastructure to the maximum extent possible. DCR RESPONSE**

Meets criteria as written.

- a. The 2020 *Regional Collaboration to Build Community Resilience in Northern Virginia* expanded upon *The Roadmap*, to include maximization of green infrastructure. Nature-based solutions are also presented in the *Fairfax County Watershed Management Plan* and the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*.

**3. Element 3: It includes considerations of all parts of a locality regardless of socioeconomics or race. DCR RESPONSE**

Meets criteria as written.

- a. All parts of a locality: The *Northern Virginia Hazard Mitigation Plan* discusses the demographic and economic trends throughout the entirety of Fairfax County.
- b. Social vulnerability: The *Regional Collaboration to Build Community Resilience in Northern Virginia* presents a more comprehensive approach that includes an assessment of the socioeconomic impacts of infrastructure disruptions on vulnerable populations that will be taken into account as well as the socioeconomic benefits of infrastructure investment. This expanded upon objectives contained within *The Roadmap*, to ensure equitable access to resilient critical infrastructure.
- c. Demographic Analysis: Population and demographic characteristics outlined within the *Northern Virginia Hazard Mitigation Plan*. The *Fairfax County Comprehensive Plan* also looks at demographics and social factors and utilizes this information to support the Human Services section of the *Comprehensive Plan*.

**4. Element 4: It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation. DCR RESPONSE**

Meets criteria as written.

- a. Coordination with other local and inter-jurisdictional projects, plans and activities: Objective 4: Strengthen Regional Resilience Through Innovative Partnerships, Programs, and Pilots contained within *Resilient Critical Infrastructure Roadmap for Northern Virginia* focuses on coordination with local and inter-jurisdictional agencies and aligning strategies and programs. The *Comprehensive Plan for Fairfax County, Virginia* was adopted by the Board of Supervisors, Planning Commission, The Department of Planning and Zoning, and the Department of Transportation, and guides all of the plans presented in the Resilience Plan

submission for Fairfax County. The *Northern Virginia Hazard Mitigation Plan* was a collaborative effort that was adopted by all impacted localities.

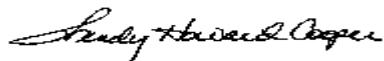
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*. Phased implementation plans presented in the *Fairfax County Watershed Management Plans*.
- 5. **Element 5: Is based on the best available science, and incorporates climate change, sea level rise, storm surge (where appropriate), and current flood maps.**

Meets criteria as written.

- a. The 2018 *Resilient Critical Infrastructure Roadmap for Northern Virginia (Roadmap)* incorporates best available science and identifies actions to potentially decrease the severity of future consequences emanating from climate and extreme weather, to include sea level rise and storm surge. *Sea Level Rise: Impact on Northern Virginia* is an interactive story map and dashboard that was created in 2019 to convey the impact of sea level rise scenarios. The *Northern Virginia Hazard Mitigation Plan* includes analyses of natural hazards based on best available science to include flooding, sea level rise and land subsidence, tropical and coastal storms, and shoreline erosion.

VA DCR looks forward to working with you as you work to make Fairfax County a more resilient community. If you have questions or need additional assistance, please contact us at [cfpf@dcr.virginia.gov](mailto:cfpf@dcr.virginia.gov). Again, thank you for your interest in the Community Flood Preparedness Fund.

Sincerely,

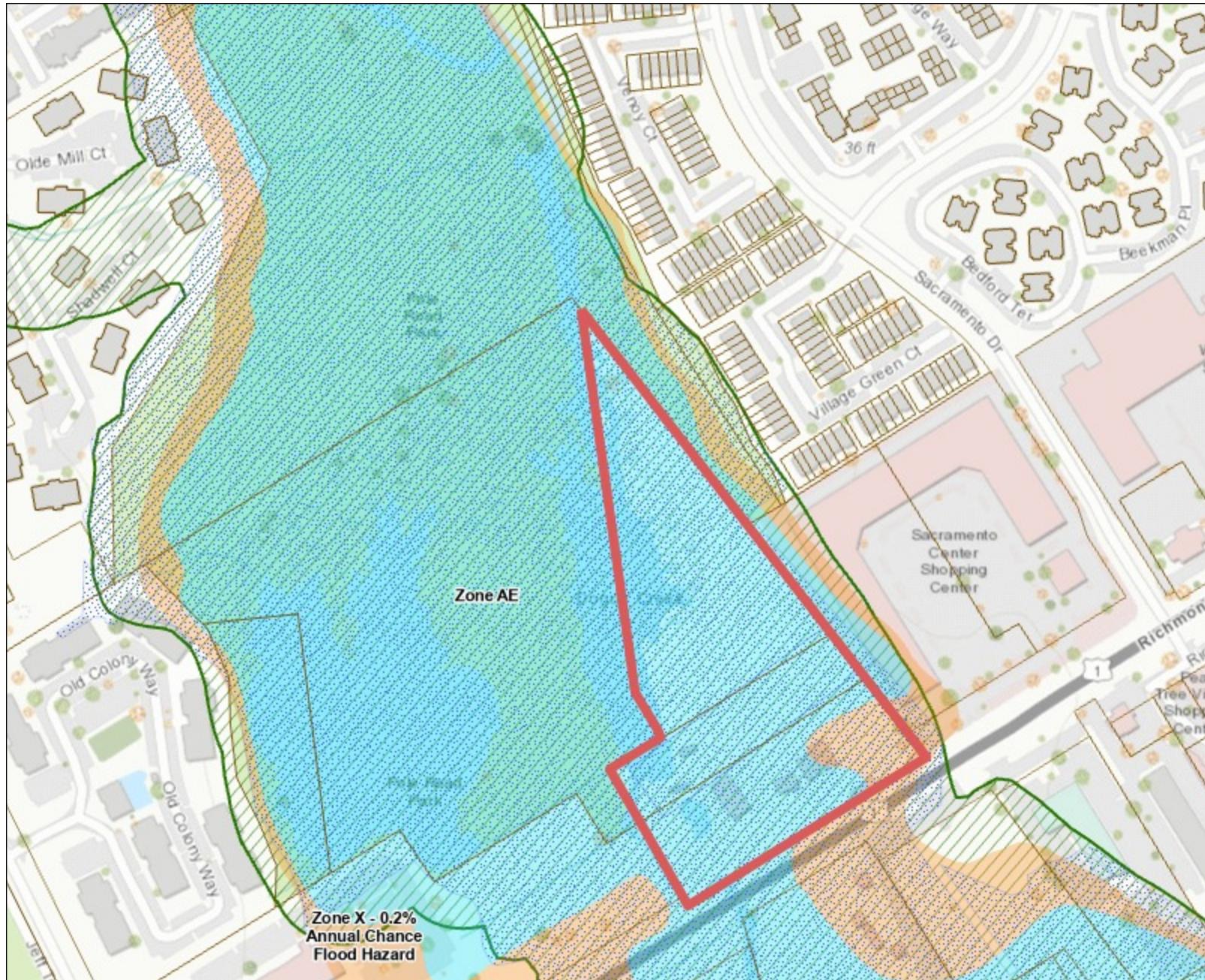


Wendy Howard Cooper, Director  
Dam Safety and Floodplain Management

cc: Darryl Glover, DCR



8800 Richmond Highway, Alexandria, VA 22309



0

752

1,505 Feet

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.



#### Legend

- Parcels
- Flood Plain Recorded
- FEMA Flood Hazard Areas**
  - Zone A Without Base Flood Elevation AH With BFE
  - Regulatory Floodway
  - Zone X - 0.2% Annual Chance Flood Hazard
  - Zone X - Area With Reduced Flood
- Resource Protection Areas**
  - 1993 RPAs
  - 2003 RPAs
  - 2003 (Rev) RPAs

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette



77°8'2"W 38°43'25"N



Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

### SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs

- Area of Undetermined Flood Hazard Zone D

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation

- 8 - - - Coastal Transect
- Base Flood Elevation Line (BFE)

- Limit of Study
- Jurisdiction Boundary

- Coastal Transect Baseline
- Profile Baseline

- Hydrographic Feature

- Digital Data Available
- No Digital Data Available
- Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/23/2023 at 3:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

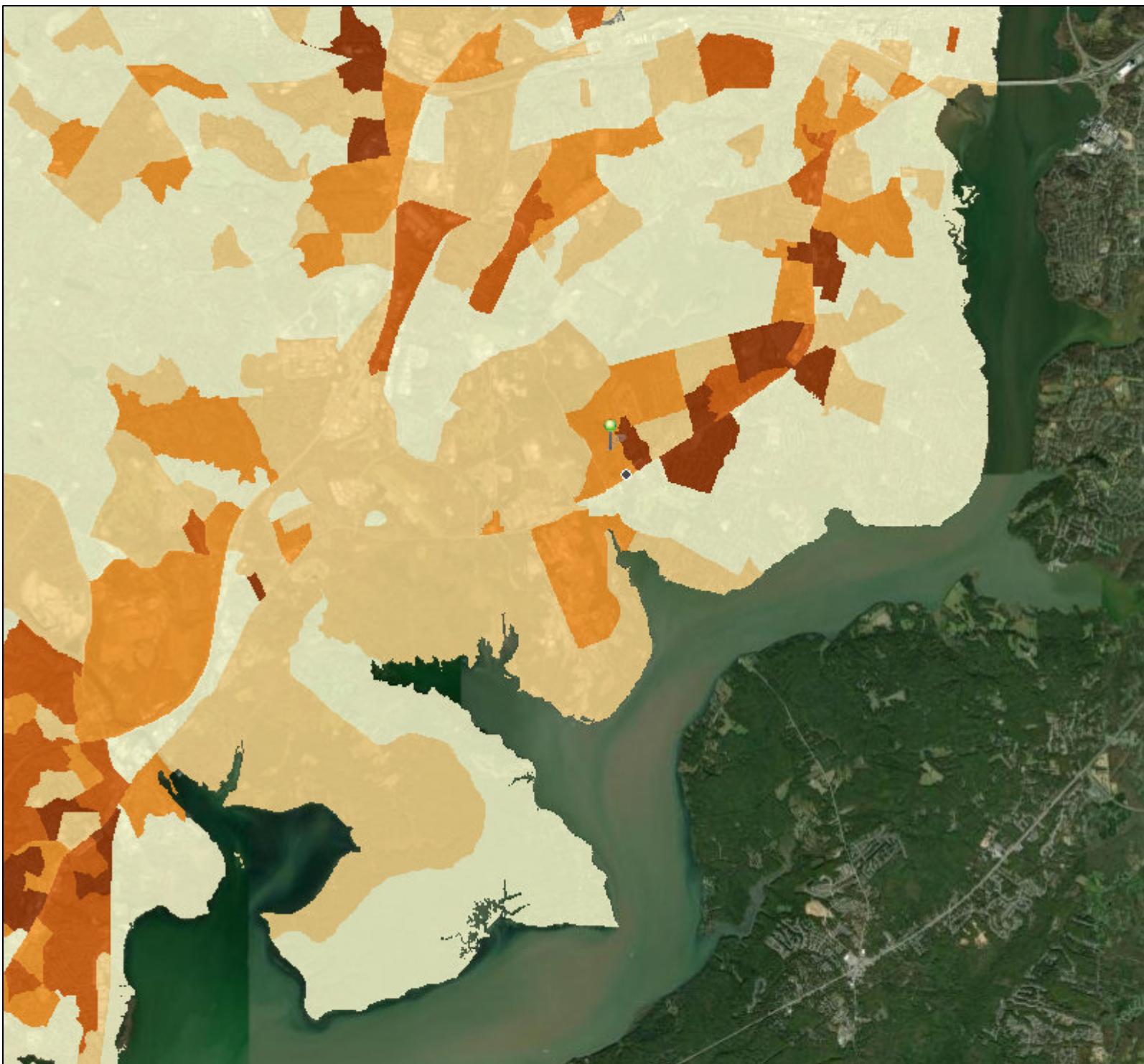
**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

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**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

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**Legend**

Virginia Social Vulnerability Block Groups 2020	Low Social Vulnerability	Very High Social Vulnerability
	Moderate Social Vulnerability	
	High Social Vulnerability	
Very Low Social Vulnerability		

Disclaimer: The Virginia Flood Risk Information System (VFRIS) includes information from the National Flood Hazard Layer, National Flood Insurance Program, and Digital Flood Insurance Rate Maps provided by the Federal Emergency Management Agency, as well as data from the National Fish and Wildlife Service, U.S. Geological Survey, and Esri. These data are provided on an 'as is' basis. The Virginia Department of Conservation & Recreation (DCR), Virginia Institute of Marine Science (VIMS), nor other contributors of said data shall not be held liable for any use or application of the data provided whatsoever, whether or not that use is improper or incorrect, and assume no responsibility for the use or application of the data or information derived from interpretation of the data.

1:144,447.64  
0 0.5 1 2 mi



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 1, 2023

Ms. Wendy Howard Cooper  
Director, Dam Safety and Floodplain Management  
Department of Conservation and Recreation  
East Main Street, 24<sup>th</sup> Floor  
Richmond, Virginia 23219

Reference: Community Flood Preparedness Fund, CY 2023 Round 4 Grant Applications

Dear Ms. Howard Cooper:

This is a response to the Department of Conservation and Recreation's (DCR) recent announcement of the Virginia Community Flood Preparedness Fund (CFPF) grant.

We are providing CFPF applications that contain information and request funding assistance for the following four flood prevention and protection projects.

1. Broad Branch Court Stormwater Improvement Project
2. Little Pimmit Run Tributary at Woodland Terrace
3. Richmond Highway Voluntary Land Acquisition
4. Woodglen Lake Toe Drain Repair

If one or more of these grants are awarded, Fairfax County (County) will provide the necessary match for each selected project as required by your department, subject to Fairfax County Board of Supervisors approval. It is understood that the County's total match amount for all four County applications being considered during the supplemental review may be as much as \$7,926,300.

If you have any questions or need additional assistance, please contact Joni Calmbacher, Division Director, Department of Public Works and Environmental Service, Stormwater Planning Division at 703-324-5500.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bryan J. Hill".  
Bryan J. Hill  
County Executive

Attachment: Community Flood Preparedness Fund (CFPF): Applications

Bryan J. Hill

Department of Conservation and Recreation, Virginia Community Flood Preparedness Fund

Page 2 of 2

cc:    Rachel Flynn, Deputy County Executive  
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)  
Eleanor Ku Coddng, Deputy Director, DPWES, Stormwater and Wastewater Divisions  
Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**



## Benefit-Cost Calculator

V.6.0 (Build 20231011.1703 | Release Notes)

Attachment 13

## Benefit-Cost Analysis

Project Name: 8800 Richmond Highway



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Acquisition @ 38.7195380; -77.1283109		Riverine Flood	\$ 4,246,415	\$ 4,000,000	1.06	\$ 9,403,581	\$ 4,000,000	2.35
<b>TOTAL (SELECTED)</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>
<b>TOTAL</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>

## Property Configuration

<b>Property Title:</b>	Acquisition @ 38.7195380; -77.1283109
<b>Property Location:</b>	22309, Fairfax, Virginia
<b>Property Coordinates:</b>	38.7195380398629, -77.12831090070694
<b>Hazard Type:</b>	Riverine Flood
<b>Mitigation Action Type:</b>	Acquisition
<b>Property Type:</b>	Non-Residential Building
<b>Analysis Method Type:</b>	Modeled Damages

## Cost Estimation

Acquisition @ 38.7195380; -77.1283109

<b>Project Useful Life (years):</b>	100
<b>Project Cost:</b>	\$4,000,000
<b>Number of Maintenance Years:</b>	100 Use Default:Yes
<b>Annual Maintenance Cost:</b>	\$0

## Hazard Probabilities Parameters - Flood

Acquisition @ 38.7195380; -77.1283109

**Lowest Floor Elevation of the Property (ft):** 0

**Streambed Elevation at the Property Location (ft):** 0

**Use Default Recurrence Intervals:** Use Defau **No**

## Discharge

Acquisition @ 38.7195380; -77.1283109

### BEFORE MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

### AFTER MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

## Estimated Annual Damages by Category

Acquisition @ 38.7195380; -77.1283109

## Before Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## After Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## Building Information

Acquisition @ 38.7195380; -77.1283109

**Non-Residential Occupancy Type:** Select Non-Residential Building Use**Building Type:****Building Is Engineered:** No**NFIP:** No

## Standard Benefits - Building

Acquisition @ 38.7195380; -77.1283109

**Depth Damage Curve:** Use Default:Yes**Building Size (sq.ft):** 0**Building Replacement Value (BRV) (\$/sq.ft):** \$100 Use Default:Yes**Demolition Threshold (%):** 50.00% Use Default:Yes**Expected Annual Losses due to Building Damages before Mitigation:** \$0**Expected Annual Losses due to Building Damages after Mitigation:** \$0**Expected Annual Benefits - Building:** \$0

## Depth Damage Curve - Building

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION				AFTER MITIGATION			
	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)

## Standard Benefits - Contents

Acquisition @ 38.7195380; -77.1283109

<b>Contents Value in Dollars:</b>	\$0	Use Default:Yes
<b>Expected Annual Losses due to Content Damages before Mitigation:</b>	\$0	
<b>Expected Annual Losses due to Content Damages after Mitigation:</b>	\$0	
<b>Expected Annual Benefits - Content:</b>	\$0	

## Depth Damage Curve - Contents

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Percent (%)	Damage Value (\$)	Percent (%)	Damage Value (\$)

## Standard Benefits - Displacement

Acquisition @ 38.7195380; -77.1283109

<b>Monthly Displacement Cost (\$/sq.ft/month):</b>	0	Use Default:Yes
<b>One-Time Displacement Cost (\$/sq.ft):</b>	0	Use Default:Yes
<b>Expected Annual Losses due to Displacement Damages before mitigation:</b>	\$0	
<b>Expected Annual Losses due to Displacement Damages after Mitigation:</b>	\$0	
<b>Expected Annual Losses - Displacement:</b>	\$0	

## Depth Damage Curve - Displacement

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Loss of Function/Loss of Income

Acquisition @ 38.7195380; -77.1283109

<b>Annual Operating Budget:</b>	\$0
<b>Loss of Function/Loss of Income Per Day:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income before mitigation:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income after mitigation:</b>	\$0
<b>Expected Annual Benefits - Expected Annual Benefits - Loss of Function/Loss of Income:</b>	\$0

Depth Damage Curve - Loss of Function/Loss of Income  
Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Street Maintenance Costs

Acquisition @ 38.7195380; -77.1283109

Total Annual Street Maintenance Budget (\$): \$0

Number of Street Miles Maintained: 0

Street Miles that will not require future maintenance: 0

Expected Annual Street Maintenance Benefits: \$0

## Standard Benefits - Volunteer Costs

Acquisition @ 38.7195380; -77.1283109

Number of Volunteers (volunteers/event): 0

Number of Days of Lodging: 0

Expected Annual Volunteer Benefits: \$0

## Standard Benefits - Ecosystem Services

Acquisition @ 38.7195380; -77.1283109

Total Project Area (acres): 8

Percentage of Urban Green Open Space: 0.00%

Percentage of Rural Green Open Space: 0.00%

Percentage of Riparian: 100.00%

Percentage of Coastal Wetlands: 0.00%

Percentage of Inland Wetlands: 0.00%

Percentage of Forests: 0.00%

Percentage of Coral Reefs: 0.00%

Percentage of Shellfish Reefs: 0.00%

Percentage of Beaches and Dunes: 0.00%

Expected Annual Ecosystem Services Benefits: \$297,592

**Benefits-Costs Summary**

Acquisition @ 38.7195380; -77.1283109

**Total Standard Mitigation Benefits:** \$4,246,415**Total Social Benefits:** \$0**Total Mitigation Project Benefits:** \$4,246,415**Total Mitigation Project Cost:** \$4,000,000**Benefit Cost Ratio - Standard:** 1.06**Benefit Cost Ratio - Standard + Social:** 1.06

# FAIRFAX COUNTY

## Richmond Highway Voluntary Land Acquisition

Virginia Community Flood Preparedness Fund

F2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-1 (Richmond Hwy)



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## Attachments

- Attachment 1. Staff Report for Plan Amendment 2018-IV-MV2
- Attachment 2. Staff Report Addendum for Plan Amendment 2018-IV-MV2
- Attachment 3. 8800 Richmond Highway Planned Land Use
- Attachment 4. Fairfax County Fiscal Year 2024 Stormwater Budget
- Attachment 5. Request for funding authorization
- Attachment 6. Resilient Fairfax Goal AE.1
- Attachment 7. Fairfax County Floodplain Management Plan Progress Report
- Attachment 8. Virginia Flood Risk Information System Social Vulnerability Index
- Attachment 9. Property Sales Listing
- Attachment 10. Fairfax County Resilience Plan Approval
- Attachment 11. Project Detailed Map
- Attachment 12. FEMA National Flood Hazard Layer FIRMette
- Attachment 13: Benefit-Cost Analysis

## Appendices

- Appendix A
- Appendix B
- Appendix C
- Appendix D

## Executive Summary

Fairfax County is applying for grant assistance under the Virginia Department of Conservation and Recreation (DCR) Community Flood Preparedness Fund (CFPF) Round 4 ‘Project’ category to help voluntarily acquire a property located in the 100-year floodplain for permanent conservation. The project, *Richmond Highway Voluntary Acquisition*, includes the purchase of three partially developed parcels and the restoration of natural features to restore the riparian buffer and floodplain functions.

DCR approved the County’s Resilience Plan on January 10, 2022. The County has integrated flood mitigation and resilience goals across areas of the local government, with flood resilience a priority addressed holistically through watershed and countywide comprehensive planning. The County has established requirements for development controls in the floodplain through zoning and the local floodplain ordinance. To address recent repetitive floodings, the County is in the process of preparing a draft flood risk reduction plan. The County is also developing a comprehensive regulated floodplain map to assess and implement future projects.

The proposed project meets the County’s ambitious comprehensive plan goals by transforming a partially developed property in the floodplain and resource protection area into conserved open space that can serve as a park amenity to the surrounding underserved communities.

### A. Scope of Work Narrative

#### 1. Project Information

8800 Richmond Highway, Alexandria, VA 22309, is an approximately eight-acre area of land in the Mount Vernon Magisterial District comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. The subject area is bounded by Richmond Highway to the south, the Woodlawn Community Business Center (CBC) to the east, and Dogue Creek to the west and north, as shown in Figure 1. Pole Road Park is adjacent to the subject area to the north and west. Parcel 20, approximately 2.5 acres in size, fronts Richmond Highway, is zoned C-8 Highway Commercial District, and is partially developed with a welding operation. Parcels 19 and 18C, approximately 1.2 and 4.2 acres in size, respectively, are located north of Parcel 20. These parcels are zoned R-2 Residential District (two du/ac), and are vacant, but contain remnants of a gravel surface parking lot used for vehicle storage (see Figures 2 and 3). The majority of all three parcels are located in the 100-year floodplain.

Under the current comprehensive plan, the property is planned as private open space, but there are continued attempts to redevelop the site. In 2018, the County Board of Supervisors authorized consideration of a Plan Amendment to evaluate residential use at a density up to eight dwelling units per acre. Ultimately, County staff did not support the Plan Amendment citing the environmental and risk concerns of placing residential buildings in the floodplain and the Plan Amendment was deferred indefinitely. The Plan Amendment staff report and addendum are provided as Attachments 1 and 2 at the end of this application. Most recently, a car dealership has expressed interest in using the property for vehicle storage and a future dealership site.

The property owners support the voluntary acquisition of the property by Fairfax County. Selling to Fairfax County involves less risk than selling for redevelopment that would likely be

contingent on the rezoning application approval. The County would restore the stream natural buffer with native landscaping, provide tree plantings and preservation, and conduct invasive plant management. The County would place a conservation easement over the three parcels and ultimately transfer them to the Fairfax County Park Authority to expand Pole Road Park. Pole Road Park is a county-owned park that is generally preserved as a conservation area with limited recreational amenities and some trails. The park is connected by Dogue Creek to the Jackson M. Abbott Wetland Refuge.

*Figure 1: Property Environmental Features*



*Figures 2 & 3: Aerial view of 8800 Richmond Highway*



#### *Population*

Fairfax County has a population of about 1.17 million. The project is located within Census Block 421800-1000 (population 2,214) and bordered by Census Blocks 421800-1003 (population 2,314) and 416100-1008 (population 2,552). In total, 7,080 residents will have direct access to this future park space, with thousands more within walking distance of the amenity. Presently,

communities along Richmond Highway cannot access Pole Road Park because access is blocked by this property.

## *Historic Flooding Data and Hydrologic Studies*

The property is located almost entirely within the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area Zone AE (Figure 4). Additionally, the Richmond Highway bridge over Dogue Creek adjacent to the property is known as a frequently flooded road site (Figure 5).

*Figure 4: National Flood Hazard Layer FIRMette*

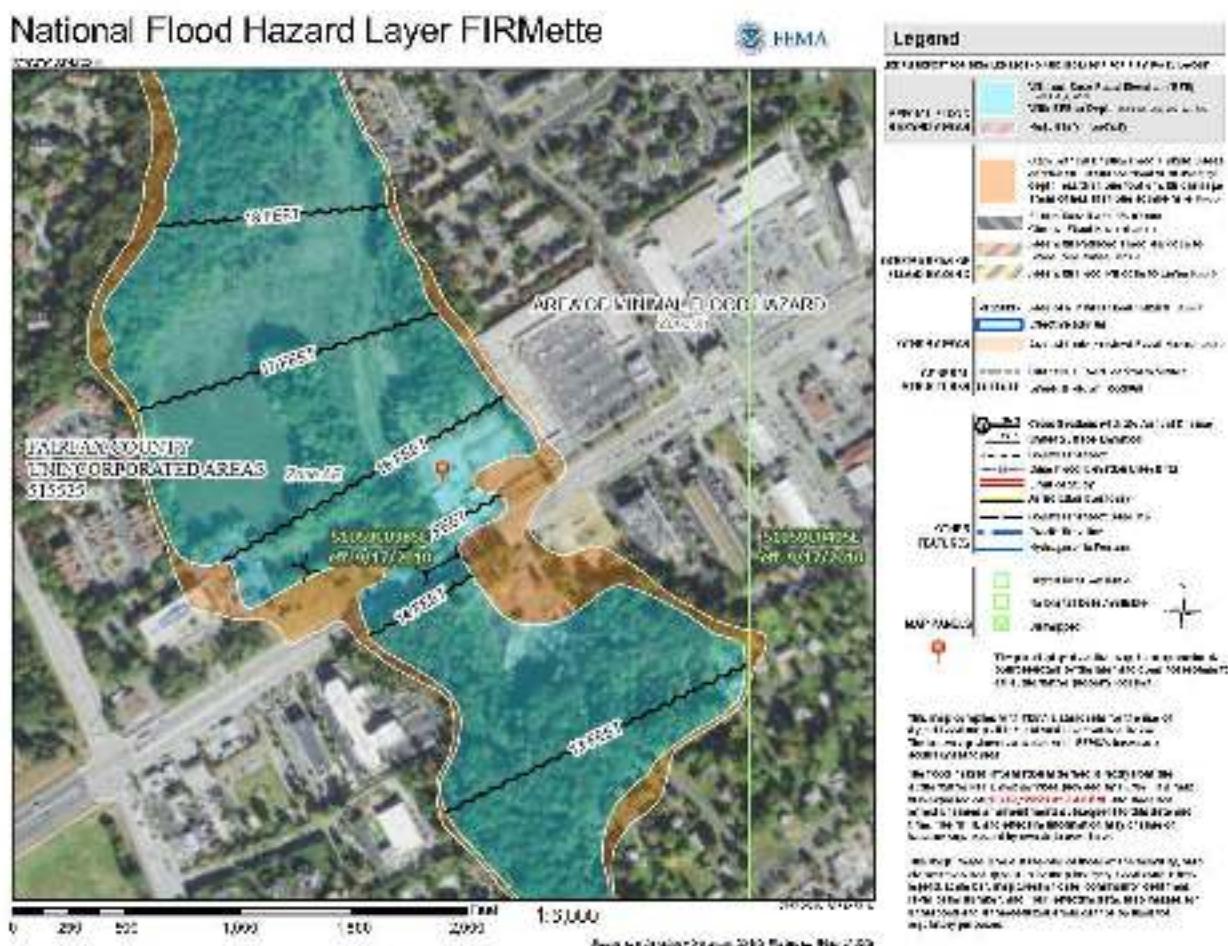


Figure 5: Fairfax County Frequently Flooded Road Sites



### *Local Government Cost Share*

Voluntary acquisition of the property meets the planned land use of the [2017 Mount Vernon Comprehensive Plan](#). It is currently anticipated that the County's cost-share would be provided through Stream and Water Quality Improvements under Fund 40100 Stormwater Services in the Fairfax County Fiscal Year 2024 budget (see Attachment 3 for the comprehensive plan land use, Attachment 4 for County budget document, and Attachment 5 for a match authorization letter from the County Executive.)

### *County Floodplain Management Regulations*

Fairfax County, CID #515525, is listed in FEMA's Community Status Book Report as a community participating in the National Flood Insurance Program (NFIP). In addition, Fairfax County participates in the Community Rating System (CRS) and received a Class 6 rating in the most recent verification process. Floodplains are regulated under article 5104 of the county's Zoning Ordinance. The Zoning Ordinance is included in the link below:

<https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251>

Fairfax County regulates proposed uses and disturbances in the 100-year flood inundation area associated with all channels or conveyance systems that have a contributing drainage area of 70 acres or more. Currently, existing floodplain boundaries and water surface elevations are available from several sources and a significant portion of regulated floodplain is not mapped.

A separate effort to develop a comprehensive regulated floodplain map is currently underway.

Based on the 2010 mapping of the Special Flood Hazard Areas (SFHAs) by FEMA, the property is located almost entirely within Zone AE.

### *Project Priority*

#### *Flood Damage*

This project is prioritized in the Mount Vernon District due to continued redevelopment pressure. While the locality allows redevelopment within the floodplain in accordance with the County floodplain management regulations (see above), Fairfax County would prefer the site be converted to preserved open space. The open space meets several County priorities, including the expansion of green space in and adjacent to historically underserved communities, increased resiliency to heat and flood risks associated with climate change, and improved ecological conditions with local stream valleys. While there is no record of structural flooding on the property, the adjacent Richmond Highway bridge over Dogue Creek adjacent to the property is known as a frequently flooded road site (see Figure 5 above).

#### *Project Area Structures and Critical Facilities*

Currently the property includes two one-story commercial structures. The objective of the voluntary land acquisition is to prevent the redevelopment of the property with new structures that may be prone to future flooding due to the uncertainty of climate change and the potential for more frequent high-intensity short-duration events exceeding the 100-year storm.

## 2. Need for Assistance

### *Financial and Staff Resources*

The Stormwater Services Emergency and Flood Response Projects program supports flood control projects for unanticipated flooding events that impact storm systems and structural flooding. The program provides annual funding for scoping, design, and construction activities related to flood mitigation projects, but does not currently include funding for voluntary acquisition of flood-prone properties. Fairfax County's advertised Fiscal Year 2024 Stormwater Services budget includes \$7.0 million for emergency and flood response projects (see Figure 6), but there is an estimated total cost of \$43.9 million for active flood mitigation projects. With the increase in the frequency and intensity of storms due to climate change, we expect the number of flood mitigation projects to grow, and the associated project design and construction costs will extend well beyond what the county's current emergency and flood response program can support.

The Resilient Fairfax Plan Goal AE.1 strategy encourages surveying and protecting areas that provide Natural Resilience Benefits (Attachment 6). The Fairfax County Floodplain Management Plan also recommends using permanent easements to prevent development in the high priority undeveloped floodplain areas (Attachment 7). Other than federal FEMA grant programs, there is currently no County designated funding source for voluntary acquisition of flood-prone properties to meet the County's climate resiliency and floodplain management goals. This project will serve as a model for the potential future development of a voluntary land acquisition program.

*Figure 7. Fiscal Year 2024 Adopted Budget- Stormwater Services Summary of Capital Projects*

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000	6,000,000
Dam Safety and Facility Rehabilitation (SD-000033)	68,576,104	5,039,029.28	12,188,745.52	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,546.30	82,119,862.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>

### *Low Income Geographic Areas*

The project does not fall in a low-income geographic area.

### *Vulnerability Index*

Based on the Virginia Flood Risk Information System (VFRIS) Social Vulnerability Index, the project is not in a socially vulnerable area; however, several of the adjacent census blocks within walking distance to the site receive very high scores (Attachment 8).

According to data provided by the [Fairfax County Vulnerability Index](#), the census block is rated as ‘highly vulnerable’ with a median household income of \$62,679 which is half the county average as well as a lower-than-average educational attainment and a high percentage of non-English speakers. The Fairfax County Park Authority notes that the area scores high on the Park

Authority's Racial Equity Index (PAREI) because it is both a vulnerable and high-density population.

#### *Alternatives*

Several alternative options for the 8800 Richmond Highway property have already been proposed, but every alternative includes redevelopment of the flood-prone property. The most detailed option is documented in the Plan Amendment 2018-IV-MV2 staff report and addendum (Attachments 1 and 2) to rezone the property for residential use at a density up to eight dwelling units per acre. This alternative goes against a long-standing County policy to prohibit new residential structures in flood impact hazard areas and protect and restore environmental quality corridors along streams. The property is currently listed for sale (see Attachment 9) and a car dealership expressed interest in purchasing the parcels for vehicle storage and future development as a car dealership. There is also by-right development potential on the commercial parcels closest to Richmond Highway making these easier to develop with strip commercial uses.

### 3. Goals and Objectives

The following are the primary goals and objectives of the project:

- Enhance the broader natural and built environment networks within the Mount Vernon Richmond Highway corridor by purchasing and restoring property within the Dogue Creek 100-year floodplain.
- Protect downstream estuary by preventing mobilization of sediment from adjacent wetland in the event of redevelopment.
- Address public safety concerns by removing property within the 100-year floodplain from potential future redevelopment.
- Provide a vital connection for vulnerable communities that lack park access to Pole Road Park as shown in Figure 8.

*Figure 8: 8800 Richmond Highway Trail Connection to Pole Road Park  
(source: Fairfax County Comprehensive Plan)*



#### 4. Approach, Milestones, and Deliverables

Upon grant approval, project activities will begin immediately, and the County will conduct the property acquisition process. The County would utilize an on-call consultant to complete a demolition and restoration plan for the site. The property would also be permanently protected as open space through a conservation easement. See Table 1 for a more detailed outline of the tasks and anticipated durations.

*Table 1: Project Schedule*

DURATION	TASK DESCRIPTION
<b>Begin to Month 6*</b>	Complete negotiation to purchase the property and complete the land acquisition process. Begin demolition and restoration plan for the site.
<b>Month 6 to 12</b>	Complete design and start permitting and procurement for structure demolition. Record permanent conservation easement.
<b>Month 12 to 18</b>	Complete demolition of structures and appurtenances and select on-call contractor for site restoration.
<b>Month 18 to 24*</b>	Complete site restoration, including stream restoration and native planting and landscaping.
<b>Month 24 to 29</b>	Transfer property to the Fairfax County Park Authority.

\*Milestone

The milestones for the project include: (1) the voluntary acquisition of the property; and (2) the completion of the site demolition and restoration.

Project deliverables include acquisition of the property, recordation of the conservation easement, and demolition and restoration of the site.

## 5. Work Plan

Major Tasks	Responsible Party	Timeframe	Partners
Voluntary Acquisition of Property	County	6 months from grant award and acceptance	Property Owner
Start permitting, procurement for structure demolition, and record conservation easement	County	Within 6 months of property acquisition	N/A
Complete Demotion and Begin Site Restoration	Contractor and County	Within 12 months of property acquisition	N/A
Complete Site Restoration	Contractor and County	6 months from completion of structure demolition	Fairfax County Park Authority
Transfer Property to FC Park Authority	County	Within 5 months of completion of site restoration	Fairfax County Park Authority

## 6. Relationship to Other Projects

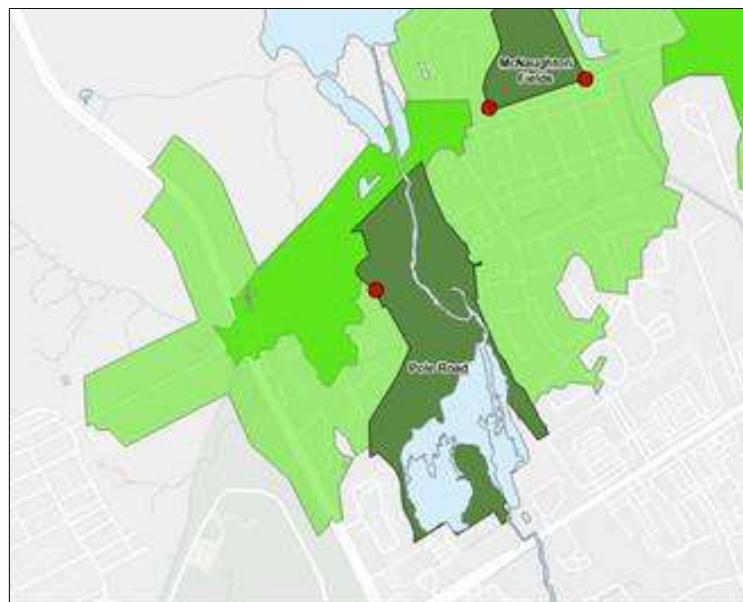
The voluntary acquisition and restoration of 8800 Richmond Highway will fill a vital gap within the Dogue Creek stream valley. The property will provide a connection from Richmond Highway to Pole Road Park as seen in Figure 8 providing important access to parks for residents who live along the

highway corridor. The property is also directly upstream of two active stream and floodplain restoration projects. As a part of the Richmond Highway Corridor Improvements project, the Virginia Department of Transportation (VDOT) will replace the existing Richmond Highway bridge over Dogue creek and stabilize and restore the corresponding section of Dogue Creek. More information on the bridge replacement and stream work can be found on the project website: [Richmond Highway Corridor Improvements in Fairfax County - Projects | Virginia Department of Transportation \(virginiadot.org\)](https://www.virginiadot.org/Projects/Richmond_Highway_Corridor_Improvements_in_Fairfax_County.aspx). In coordination with VDOT, Fairfax County will restore the section of Dogue Creek downstream of the Richmond Highway bridge to Old Mill Road. The Dogue Creek at Old Mill Road stream restoration is currently in design and more information can be found on the project webpage: [Dogue Creek at Old Mill Road | Public Works and Environmental Services \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/public-works-and-environmental-services/dogue-creek-at-old-mill-road).

These projects tie into the greater County vision for the Woodlawn Community Business Center (CBC) as detailed in the Mount Vernon Comprehensive Plan (Plan). The Plan envisions the creation of coordinated, transit-oriented places that highlight and strengthen the historical and ecological attributes of the Richmond Highway corridor; a new network of parks and open spaces; and pedestrian-scaled mixed-use development to form a series of vibrant, well-connected places that will contribute to the greater Richmond Highway community. As one of the six nodes in the Richmond Highway Corridor, the Woodlawn CBC is envisioned to evolve as a transit-oriented, mixed-use village and tourist hub served by a planned bus rapid transit (BRT) system. As described in the adopted Plan guidance, the Woodlawn CBC is planned for approximately 1,020 dwelling units, envisioned as townhomes and multifamily units, and 887,000 gross square feet of non-residential uses, or roughly 2,614 jobs based on square feet per job conversion factors for different types of planned non-residential uses (office, retail, and hotel). The full Plan can be found here: [2017 Edition of the Comprehensive Plan - Mount Vernon Planning District \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/planning-development/comprehensive-plans/mount-vernon-comprehensive-plan).

The PROSA Strategy, which was endorsed by the Park Authority Board in September 2023, is the Park Authority's data-driven approach and framework to provide a countywide roadmap for improved park access, a balance of recreational experiences, bolster habitat connectivity, and prioritize recreation needs and projects with an equity lens to meet the diverse needs of Fairfax County residents. Two key elements of PROSA are improving ten-minute walk access to parks and prioritizing park and recreation needs with an equity lens. Acquisition, restoration, and ultimate dedication of 8800 Richmond Highway as park space plays a key role in increasing access to underserved communities in vicinity of property (see Figure 9).

*Figure 9: Ten-minute Walk Shed to a Park Entrance in the Vicinity of 8800 Richmond Highway (source: Fairfax County Park Authority) Note: County parks are in dark green, ten-minute walk sheds are in light green, and park entrances are the red dots.*



The acquisition and inclusion of 8800 Richmond Highway will provide important linkage and additions to these connected corridor improvement projects. The restored floodplain will provide additional storage capacity to reduce local flooding. The restoration of the channel section on-site will prevent large amount of sediment currently sitting in the wetland pool on the property from being mobilized by erosive stream flows, thus protecting the downstream estuary. The stream restoration will also improve fish passage for local but also anadromous and catadromous species from the Dogue Creek tidal estuary upstream to Pole Road Park, Jackson Abbot Wildlife Refuge and Huntley Meadows Park. This restored corridor along with the planned county stream restoration and Richmond Highway improvements, will improve linkage not only for the human inhabitants, but for floral and faunal wildlife species. The restored floodplain will buffer and expand adjacent wetlands and provide greatly improved native plant biomass, thus improving carbon sequestration functions and supporting biodiversity.

## 7. Maintenance Plan

Fairfax County has a dedicated maintenance program. The Maintenance and Stormwater Management Division (MSMD) maintains all public stormwater infrastructure and facilities, including stream buffer restoration and reforestation projects. Since this project will be constructed by the county, it will be maintained by MSMD. An official post construction maintenance plan will be developed during the design phase of the site demolition restoration.

## B. Scoring Criteria

Appendix D is completed and included in the Appendix section at the end of this application.

1. Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the

General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these or a recognized state or federal Indian tribe?

*The applicant (Fairfax County) is a local jurisdiction in the Commonwealth of Virginia*

2. Does the local government have an approved resilience plan meeting the criteria as established by this grant manual? Has it been attached or a link provided?  
*The County has an approved resilience plan (see Attachment 10)*
3. For local governments that are not towns, cities, or counties, have letters of support been provided from affected local governments?  
*This criterion is not applicable. The applicant is a local jurisdiction.*
4. Has the applicant provided evidence of an ability to provide the required match funds?  
*The match funds for the project are included in the adopted Fiscal Year 2024 CIP for Stream and Water Quality Improvement Projects (see Attachment 5).*
5. Has the applicant demonstrated, to the extent possible, the positive impacts of the project or study on prevention of flooding?  
*The main objective of this project is to purchase three partially developed parcels in the 100-year floodplain, restore the riparian buffer and floodplain functions, and convert the property to conserved open space.*

#### SUPPORTING DOCUMENTATION

Scope of Work Narrative	
Documents	Link or Attachment
Detailed map of the project area	Attachment 11
FIRMette of the project area	Attachment 12
Historic flood damage data/image	Figure 5 above
Link to the current floodplain ordinance	<a href="https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251</a>
No-fund maintenance and management plan	Described in maintenance plan above
Copy of the current hazard mitigation plan	<a href="https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan_combined.pdf">https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan_combined.pdf</a>
Copy of the current comprehensive plan	<a href="https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf">https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf</a>
Social vulnerability index score(s) for the project area from <a href="https://consapps.dcr.virginia.gov/VFRIS/">https://consapps.dcr.virginia.gov/VFRIS/</a>	Attachment 8

Completed Scoring Criteria Sheet Appendix A, B, C, D	Included in Appendices at the end of the application
Census Block(s)	421800-1000, 421800-1003, and 416100-1008

## C. Budget Narrative

### 1. Estimated Total Project Cost

The total project cost for acquisition and restoration of the site is \$4,000,000.

#### **Estimated total project cost: \$4,000,000**

Estimated Land Acquisition Cost: \$3,500,000

Estimated Design Cost: \$50,000

Estimated Demolition and Restoration Cost: \$450,000

See Attachment 9 for the active property sales listing. The listing reflects the non-negotiated price and does not consider the land use and environmental constraints on the property. The County is currently completing an assessment of the three parcels and it is assumed the County will be able to negotiate the final property cost based on its assessed value. If the negotiated value exceeds \$3,500,000, Fairfax County will fund the difference in addition to the local match.

### 2. Funds Requested

The County requests \$2,800,000 from the Fund. 100% of this grant will be applied to the acquisition and restoration of the property.

### 3. Available Funds

Funds for the cost-share are available in *Stream and Water Quality Improvements* under Fund 40100 Stormwater Services in the advertised Fairfax County Fiscal Year 2024 budget (Attachment 4).

See Attachment 5 for the Letter from the County Executive, Bryan Hill, confirming the necessary match for this application and the other three applications submitted by the County for the 2023 application cycle.

### 4. Benefit Cost Analysis

The proposed project is over \$2,000,000, so a benefit-cost analysis is included as Attachment 13. Using the FEMA Benefit-Cost Calculator V.6.0, the Benefit Cost Ration (BCR) using the 7% discount rate is 1.06. The BCR using the 3% discount rate is 2.35.

## D. Conclusion

The proposed project meets the County's ambitious comprehensive plan goals by transforming a partially developed property in the floodplain and resource protection area into conserved open space that can serve as a park amenity and trail connection to the surrounding socially vulnerable neighborhoods. Voluntary acquisition of property in the 100-year floodplain meets

multiple County priorities, as identified in the Resilient Fairfax and Floodplain Management Plan and complements existing downstream stream restoration projects currently in design. This project will serve as a model for the potential future development of a voluntary land acquisition program.



## PROPOSED COMPREHENSIVE PLAN AMENDMENT

ITEM: PA 2018-IV-MV2  
July 5, 2018

**GENERAL LOCATION:** North of Richmond Highway, west of Sacramento Center, east of Pole Road Park

**SUPERVISOR DISTRICT:** Mount Vernon

**PLANNING AREA:** Area IV

**PLANNING DISTRICT:**  
Mount Vernon Planning District

**SUB-DISTRICT DESIGNATION:**  
Richmond Highway Corridor Area,  
MV8 Woodlawn Community Planning Sector

**PARCEL LOCATION:** 109-2 ((1)) 18C, 19, and 20

For additional information about this amendment call (703) 324-1380.

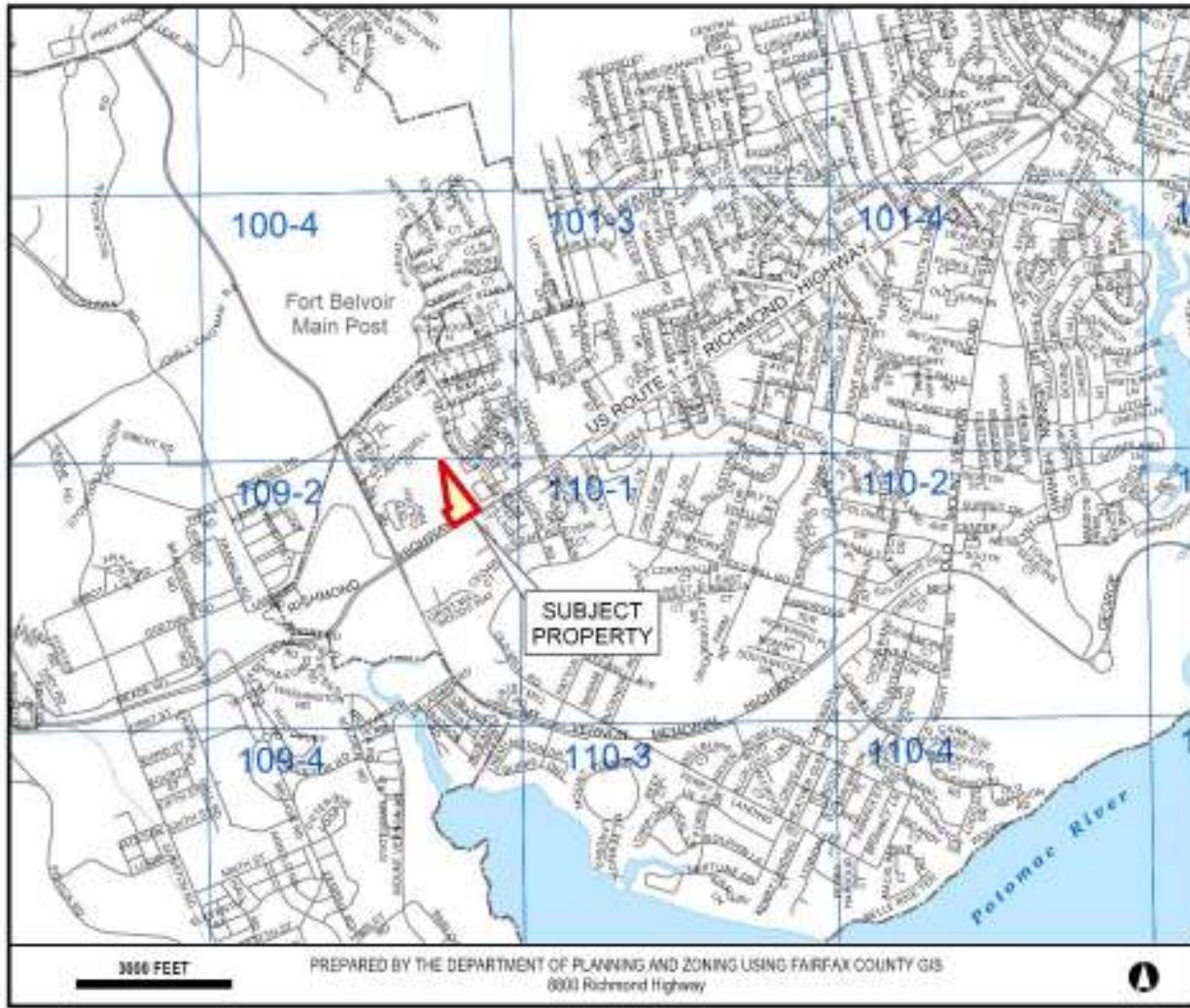
**PLANNING COMMISSION PUBLIC HEARING:**  
Thursday, July 19, 2018 @ 7:30 PM

**BOARD OF SUPERVISORS PUBLIC HEARING:**  
Tuesday, September 25, 2018 @ 4:00 PM

**PLANNING STAFF DOES NOT RECOMMEND**  
**THIS ITEM FOR PLAN AMENDMENT**



Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.

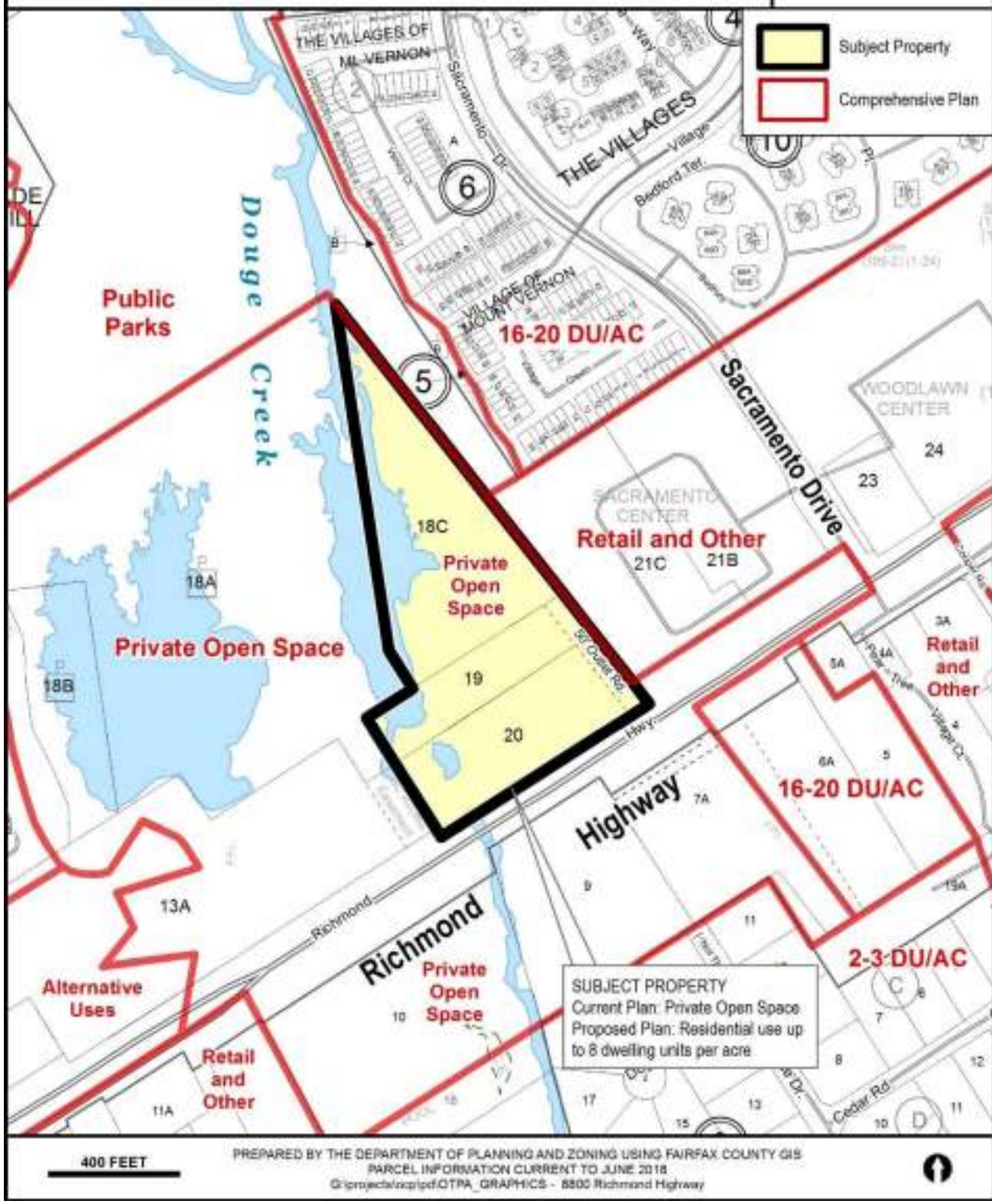


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**CURRENT PLAN AND PROPOSED CHANGE**

PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

ITEM:  
PA 2018-IV-MV2



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## **STAFF REPORT FOR PLAN AMENDMENT 2018-IV-MV2**

8800 Richmond Highway

### **BACKGROUND**

On March 6, 2018, the Board of Supervisors (Board) authorized a Comprehensive Plan amendment (amendment number 2018-IV-MV2), requesting that staff evaluate residential use at a density up to 8 dwelling units per acre (du/ac) for an approximately eight-acre area located at 8800 Richmond Highway. The subject property is currently planned for private open space. In addition to evaluating residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform with Policy Plan guidance on Environmental Quality Corridors (EQCs), including the demonstration of any circumstances that merit disturbance to the EQC, and the provision of mitigation/compensation measures resulting in a net environmental benefit to the parcels and net benefits relating to most, if not all, the objectives of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed redevelopment to be consistent with the Virginia Department of Transportation (VDOT) widening of Richmond Highway.

The subject area is comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. Two related requests are being evaluated concurrently. Rezoning and Final Development Plan application RZ/FDP 2016-MV-018 requests rezoning the property to allow for the development of approximately 43 townhomes (at the time of staff report publication). Special exception application SE 2016-MV-016 requests filling in the floodplain for residential use. A related exception application pursuant to the Chesapeake Bay Preservation Ordinance (Chapter 118 of the Fairfax County Code) is requested to permit proposed disturbances to a Resource Protection Area (RPA).

### **CHARACTER OF THE SUBJECT AREA AND SURROUNDING AREA**

The subject area is bounded by Richmond Highway to the south, the Woodlawn Community Business Center (CBC) to the east, and Dogue Creek to the west and north, as shown in Figure 1. Pedestrian and vehicular access is from Richmond Highway. Parcel 20, approximately 2.5 acres in size, fronts Richmond Highway, is zoned C-8 Highway Commercial District, and is partially developed with a welding operation. Parcels 19 and 18C, approximately 1.2 and 4.2 acres in size, respectively, are located north of Parcel 20. These parcels are zoned R-2 Residential District (two du/ac), and are vacant.

Pole Road Park is adjacent to the subject area to the north and west, and Dogue Creek runs along the shared eastern boundary of the park and the subject area. A townhouse community is adjacent to the northern edge of the Woodlawn CBC, near the eastern boundary of the subject area. A portion of the townhouse development's eastern edge is within the Dogue Creek RPA and EQC. This residential development was subject to an approved zoning application that predated the EQC Policy adopted by the Board in 1975.

The subject area abuts the Woodlawn CBC. The Woodlawn CBC was recently re-planned as part of an approximately two and a half year major corridor-wide planning effort known as Embark Richmond Highway that was adopted by the Board in March 2018. The new Comprehensive Plan envisions the creation of coordinated, transit-oriented places that highlight and strengthen the

historical and ecological attributes of the corridor; a new network of parks and open spaces; and pedestrian-scaled mixed-use development to form a series of vibrant, well-connected places that will contribute to the greater Richmond Highway community. As one of the six nodes in the Richmond Highway Corridor, the Woodlawn CBC is envisioned to evolve as a transit-oriented, mixed-use village and tourist hub served by a planned bus rapid transit (BRT) system. As described in the adopted Plan guidance, the Woodlawn CBC is planned for approximately 1,020 dwelling units, envisioned as townhomes and multifamily units, and 887,000 gross square feet of nonresidential uses, or roughly 2,614 jobs based on square feet per job conversion factors for different types of planned non-residential uses (office, retail, and hotel).

### **ADOPTED COMPREHENSIVE PLAN**

Parcels 19 and 20, the rectangular-shaped parcels, are within the Suburban Neighborhood Area adjacent to the Woodlawn CBC as shown in Figure 1, and are exempt from the 2016 Proffer Reform Bill. These parcels are planned for private open space, as they are almost entirely within the 100-year floodplain of Dogue Creek and designated as EQC and RPA, shown in Figure 2. Suburban Neighborhood Areas are part of the Richmond Highway Corridor and comprise the land located between the CBCs, which are planned as transit-oriented mixed-use nodes. Suburban Neighborhood Areas are recommended as primarily residential communities, smaller scale commercial businesses, or open spaces.

Parcel 18C, the northernmost triangular parcel, is within the MV8 Woodlawn Community Planning Sector as shown in Figure 1. The parcel is subject to the 2016 Proffer Reform Bill. Like Parcels 19 and 20, this parcel is also planned for private open space and designated as EQC and RPA, as it is almost entirely within the 100-year floodplain of Dogue Creek as shown in Figure 2.

### **PROPOSED PLAN AMENDMENT**

As stated previously, the Board authorized staff to consider residential use up to 8 du/ac for the subject area [Tax Map Parcels 109-2 ((1)) 18C, 19, and 20]. In addition to evaluating residential use for the subject area, the authorization requested that staff consider the ability to achieve full parcel consolidation and conform with Policy Plan guidance on EQCs, including the demonstration of any circumstances that merit disturbance to the EQC, and the provision of mitigation/compensation measures resulting in a net environmental benefit to the parcels and net benefits relating to most, if not all, the objectives of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed redevelopment to be consistent with the VDOT proposed widening of Richmond Highway.

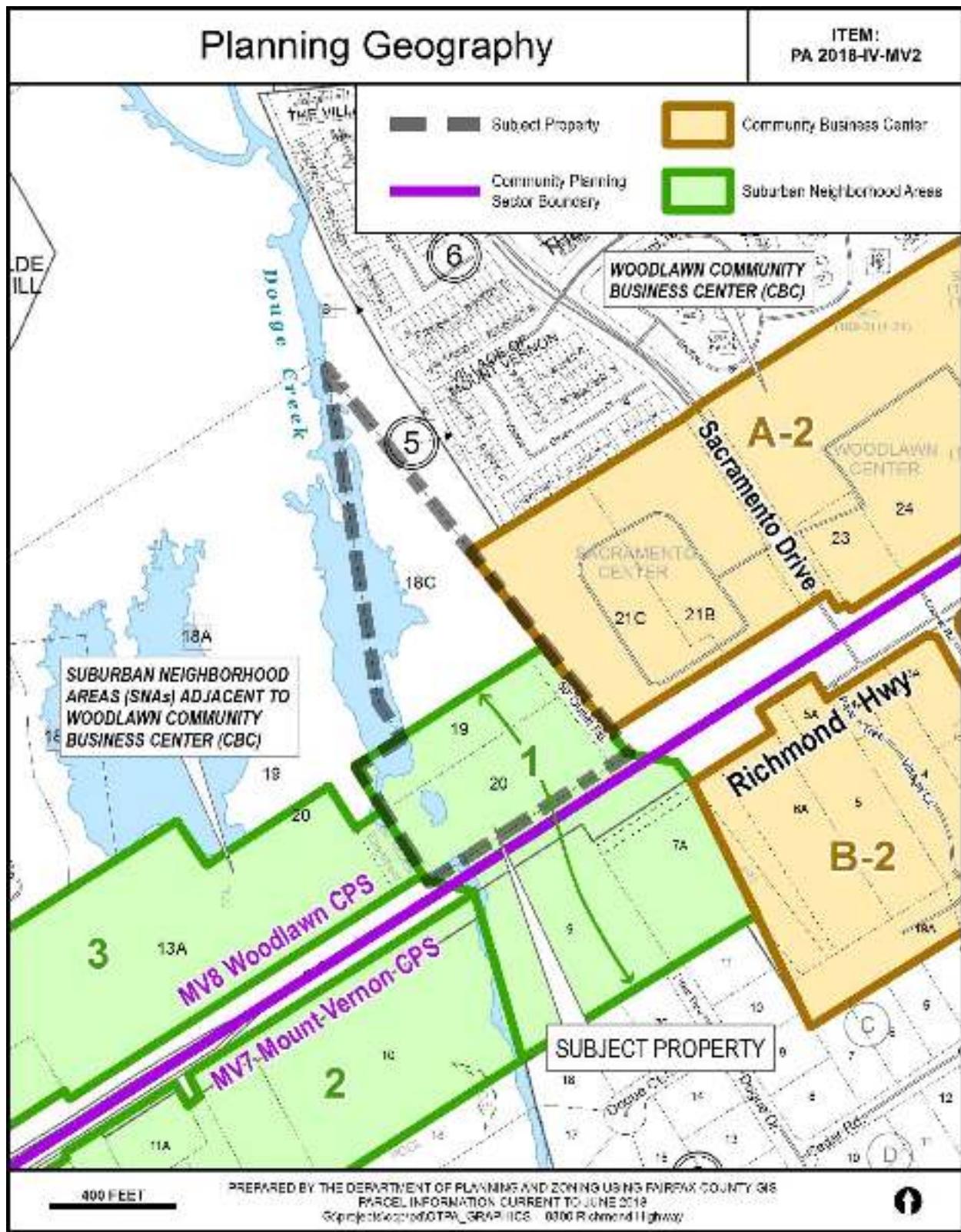
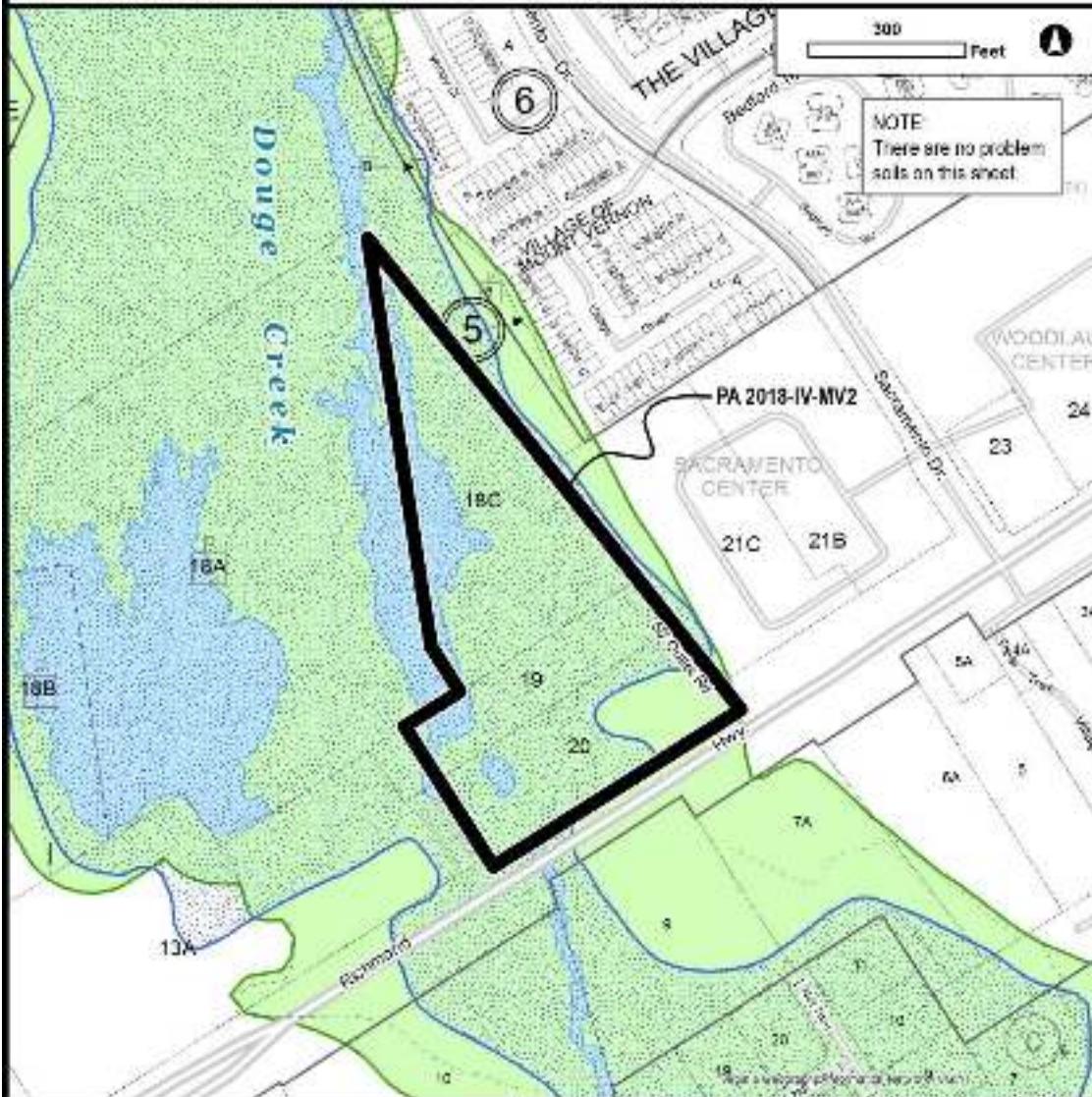


Figure 1 – Planning Geography

## 8800 Richmond Highway - Environmental Features ITEM: PA 2018-IV-MV2



### Environmental Features



FEMA 100-Year Flood Plain



Resource Protection Area (RPA)



### Problem Soils

The highlighted area contains the problematic soil characteristics, including but not limited to high shrink-swell potential, low permeability, and asbestos. It should be noted that this layer describes the general location of the problematic soils. Therefore, some areas may not have problematic soils even though they fall within the bounds of the classification. A geotechnical investigation should be conducted prior to development to ensure proper mitigation.

Prepared by CPZ 2018

Demand Path: C:\Users\jgarcia\Downloads\OTP\SRV\PH\CS\818\_Area\2018-IV-MV2\8800 Richmond Highway\2018-IV-MV2\8800 Richmond Highway\ENVIRONMENTAL FEATURES.mxd

Figure 2 – 100-Year Floodplain and Resource Protection Area (RPA)

Citations of Comprehensive Plan recommendations applicable to the proposed Plan amendment are included below.

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, page 1:

**“Environmental Protection** - The amount and distribution of population density and land uses in Fairfax County should be consistent with environmental constraints inherent in the need to preserve natural resources and to meet or exceed federal, state and local standards for water quality, ambient air quality and other environmental standards. Development in Fairfax County should be sensitive to the natural setting, in order to prevent degradation of the county’s natural environment.

**Open Space** - Fairfax County should support the conservation of appropriate land areas in a natural state to preserve, protect and enhance stream valleys, meadows, woodlands, wetlands, farmland, and plant and animal life. Small areas of open space should also be preserved in already congested and developed areas for passive neighborhood uses, visual relief, scenic value, and screening and buffering purposes.”

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, page 13:

**“Objective 7: Minimize the exposure of new development to the potential of flood impacts.**

Policy a: Prohibit new residential structures within flood impact hazard areas.”

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, pages 14 -17:

**“Objective 9: Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.**

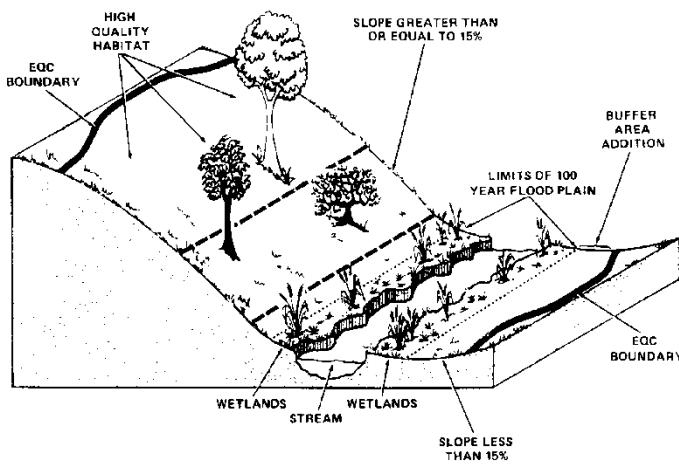
Policy a: Identify, protect and restore an Environmental Quality Corridor system (EQC)...

Lands may be included within the EQC system if they can achieve any of the following purposes:

- Habitat Quality: The land has a desirable or scarce habitat type, or one could be readily restored, or the land hosts a species of special interest. This may include: habitat for species that have been identified by state or federal agencies as being rare, threatened or endangered; rare vegetative communities; unfragmented vegetated areas that are large enough to support interior forest dwelling species; and aquatic and wetland breeding habitats (i.e., seeps, vernal pools) that are connected to and in close proximity to other EQC areas.

- Connectivity: This segment of open space could become a part of a corridor to facilitate the movement of wildlife and/or conserve biodiversity. This may include natural corridors that are wide enough to facilitate wildlife movement and/or the transfer of genetic material between core habitat areas.
- Hydrology/Stream Buffering/Stream Protection: The land provides, or could provide, protection to one or more streams through: the provision of shade; vegetative stabilization of stream banks; moderation of sheet flow stormwater runoff velocities and volumes; trapping of pollutants from stormwater runoff and/or flood waters; flood control through temporary storage of flood waters and dissipation of stream energy; separation of potential pollution sources from streams; accommodation of stream channel evolution/migration; and protection of steeply sloping areas near streams from denudation.
- Pollution Reduction Capabilities: Preservation of this land would result in significant pollutant reductions. Water pollution, for example, may be reduced through: trapping of nutrients, sediment and/or other pollutants from runoff from adjacent areas; trapping of nutrients, sediment and/or other pollutants from flood waters; protection of highly erodible soils and/or steeply sloping areas from denudation; and/or separation of potential pollution sources from streams.

The core of the EQC system will be the county's stream valleys. Additions to the stream valleys should be selected to augment the habitats and buffers provided by the stream valleys, and to add representative elements of the landscapes that are not represented within stream valleys. The stream valley component of the EQC system shall include the following elements:



A TYPICAL  
ENVIRONMENTAL QUALITY CORRIDOR

*Source: Fairfax County Office of Comprehensive Planning*

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Modifications to the boundaries so delineated may be appropriate if the area designated does not benefit any of the EQC purposes as described above. In addition, some disturbances that serve a public purpose such as unavoidable public infrastructure easements and rights of way may be appropriate. Disturbances for access roads should not be supported unless there are no viable alternatives to providing access to a buildable portion of a site or adjacent parcel. The above disturbances should be minimized and occur perpendicular to the corridor's alignment, if practical, and disturbed areas should be restored to the greatest extent possible

...

The following efforts within EQCs support the EQC policy and should be encouraged:

- Stream stabilization and restoration efforts where such efforts are needed to improve the ecological conditions of degraded streams. Natural channel design methods should be applied to the greatest extent possible and native species of vegetation should be used.
- Replanting efforts in EQCs that would restore or enhance the environmental values of areas that have been subject to clearing; native species of vegetation should be applied.
- Wetland and floodplain restoration efforts.
- Removal of non-native invasive species of vegetation from EQCs to the extent that such efforts would not be in conflict with county ordinances; such efforts should be pursued in a manner that is least disruptive to the EQCs.

Other disturbances to EQCs should only be considered in extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits relating to most, if not all, of the EQC purposes listed above that are applicable to the proposed disturbances.

Preservation should be achieved through dedication to the Fairfax County Park Authority, if such dedication is in the public interest. Otherwise, EQC land should remain in private ownership in separate undeveloped lots with appropriate commitments for preservation. The use of protective easements as a means of preservation should be considered.

..."

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Introduction, Guiding Planning Principles 6 and 7, Pages 8-9:

" 6.) Maintain the primarily residential nature of stable communities surrounding the CBCs by:

- a. Planning for primarily residential, institutional and open space uses in areas outside and between the CBCs.
- b. Providing a variety of residential housing types within the CBCs to preserve the stability of lower density neighborhoods.
- c. Supporting consolidation of land along Richmond Highway with parcels in the surrounding residential neighborhoods only when this type of consolidation is necessary to provide for site layouts that function in a well-designed, efficient manner to support reasonable and appropriate redevelopment along the corridor and protect unconsolidated parcels.

7.) Preserve, enhance, and restore the environment by:

- a. Minimizing the impact of development on the natural environment, including water quality and the ecological conditions of streams.
- b. Encouraging development approaches that serve to reduce impervious surfaces and achieve improved control over stormwater runoff ...
- c. Restoring streams and riparian areas where possible and practical.

..."

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Corridor-wide Guidelines, Environment, Page 17:

#### "Residential and Other Noise-Sensitive Uses"

Where residential or other noise sensitive uses are proposed near Richmond Highway, such proposals should only be considered with the provision of a noise study during the review of the development, commitments to noise mitigation measures, and, potentially, commitments to the provision of disclosure statements and a post-development noise study. The noise study during development review should clearly define the noise levels impacting the proposed uses as a measure of DNL dBA; should include noise contours and/or noise impacts at each façade of each affected building with current noise levels and projected noise levels based on a minimum 20-year traffic volume projection for the roadway and for bus rapid transit and/or Metrorail, as may be applicable; and,

should identify differing noise levels that may affect building facades at different elevations.

In areas where projected noise impacts at affected building facades will exceed DNL 75 dBA, design strategies should be pursued where feasible, consistent with other design goals, such that exposures of facades for noise-sensitive areas of residences will be minimized. Where such exposures cannot be avoided, and for dwelling units for which outdoor spaces including balconies are projected to be exposed to noise levels that exceed DNL 65 dBA, disclosure statements should be provided to potentially affected residents and users within the impacted uses or units. The disclosure statements should clearly identify the mitigated and unmitigated noise levels for interior space and the noise levels for any affected balconies, in addition to noise mitigation for interior space and outdoor recreational areas. When feasible, post-development noise studies should be conducted to support evaluations of the effectiveness of noise mitigation measures.”

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Suburban Neighborhood Areas, Suburban Neighborhood Areas introduction, page 165:

“...As redevelopment occurs in the Richmond Highway Corridor Area, projects should demonstrate compatible and effective transitions from the high intensity CBCs to the lower intensity SNAs; provide appropriately scaled and logical multimodal connections between the CBCs and SNAs; and ensure the character of new development and redevelopment in the SNAs is complementary to the adjacent CBCs and SNAs, where applicable. In addition to the recommendations above, the Guiding Planning Principles and Corridor-wide Guidelines should be consulted in the review of all development proposals in the SNAs. In some cases, site-specific recommendations may differ from and supersede these recommendations.”

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Suburban Neighborhood Areas, Suburban Neighborhood Areas adjacent to Woodlawn CBC, Recommendation 1, page 181:

“1. Tax Map Parcels 109-2((2))7A and 9 and Tax Map Parcels 109-2((1)) 19 and 20 on both sides of Richmond Highway are predominantly floodplain and planned for open space.”

## RICHMOND HIGHWAY CORRIDOR IMPROVEMENTS PROJECT

The subject area is partially within the limits of the VDOT Richmond Highway Corridor Improvements Project as shown in Figure 3. The project will widen Richmond Highway from four to six lanes; add separate bicycle lanes and sidewalks on both sides of the roadway; and reserve a median to accommodate Fairfax County’s proposed BRT system. As part of the project, VDOT is recommending replacement of the existing bridge over Dogue Creek with a higher, multi-span bridge that would accommodate the widened roadway. The bridge is intended to convey the 100-year flood under it without overtopping the road. Existing culverts are proposed to be removed, allowing for the daylighting of Dogue Creek under the bridge. The bridge is just south of subject area.



Figure 3 – Proposed VDOT Richmond Highway Corridor Improvements

*NOTE: The Interactive Map was accessed on June 29, 2018. This image does not show all of the proposed improvements. For any future updates, consult [http://www.virginiadot.org/projects/northern\\_virginia/richmond\\_highway\\_interactive\\_map.asp](http://www.virginiadot.org/projects/northern_virginia/richmond_highway_interactive_map.asp)*

Staff has identified a number of items for further information gathering and analysis related to the bridge and existing circumstances of Dogue Creek, to determine how the bridge may be implemented and function as intended by VDOT. Specifically, additional analysis is needed regarding the alignment of Dogue Creek and related erosion concerns. Side-by-side images of the 1955 approved plat for the private recreation club and recent water features on or near the subject property are shown in Figure 4, and offer visualizations to aid in the following creek flow path, road and streambank erosion, and channel stabilization discussion.

Dogue Creek once flowed through a straight, north-south path as generally reflected in the approved plat on the left side of Figure 4. At a later time, an alternative channel was created to the west, which resulted in most of the flow of the creek being diverted to this newer channel. The north-south flow path at one time was impeded by a mechanism near the pond (the pond is shown on the right image) that prevented the north-south flow; more recently, the mechanism was breached and the flow path was restored. The western channel is circuitous and makes an abrupt 90 degree turn along the roadbed of Richmond Highway, which does not align with VDOT's culvert or the stream channel downstream of Richmond Highway. This western channel condition has resulted in the continual erosion of the streambank and roadbed along and in the vicinity of the subject property. Note the figures do not reflect the actual width of the roadway in relation to stream.

There has been a preliminary need identified to re-establish a straightened channel that conveys the flow into the culvert under Richmond Highway, and to stabilize the channel to effectively convey flows and allow for ecosystem functions. Even if the culvert is removed with the proposed bridge project, erosion of the streambank at the base of the bridge from the western channel would

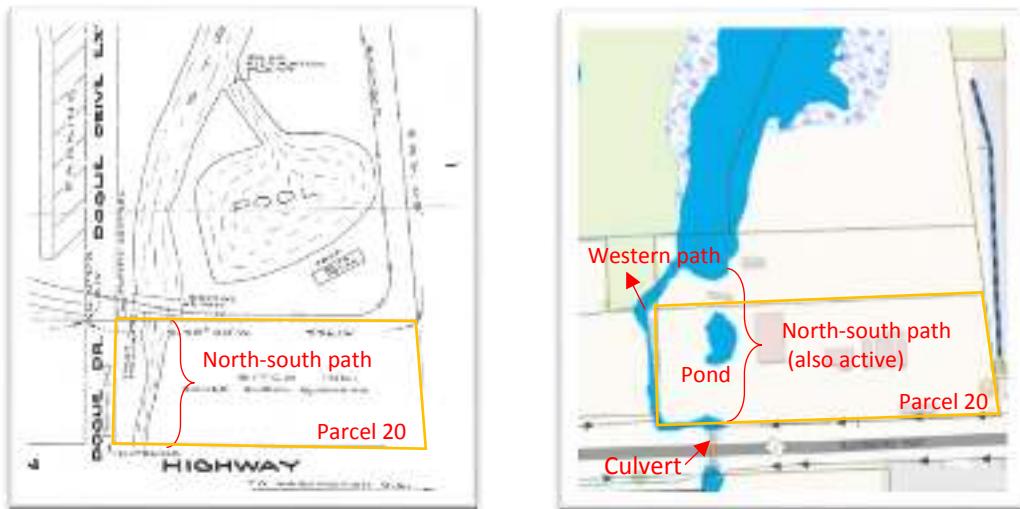


Figure 4 – Part of Approved Plat, 1955 (left) Dogue Creek and related features, researched 06/2018 (right)

continue to be problematic due to the 90 degree turn at Richmond Highway. Compounding concerns about erosion near and along Richmond Highway are concerns about additional erosion of the stream channel a short distance upstream, in an area that until recently had been ponded. Large volumes of sediment were deposited in the formerly ponded area. Any additional destabilization of this area could result in the movement of much of this sediment downstream, and stream channel erosion progressing upstream.

It is staff's view that more discussions with VDOT about the interface between Dogue Creek and the new bridge are needed to fully address the Board's request to determine whether redevelopment could be consistent with the VDOT Richmond Highway Corridor Improvements project. Improving the stability of the stream channel is also an important consideration to mitigate existing conditions and protect new infrastructure.

The estimated schedule for the VDOT Corridor Improvements Project includes a design public hearing in the fall of 2018 and design approval in the winter of 2018/19. A number of additional milestones are identified before construction begins in the Spring of 2023. For the most recent information, see the VDOT project website at [http://www.virginiadot.org/projects/northernvirginia/richmond\\_highway.asp](http://www.virginiadot.org/projects/northernvirginia/richmond_highway.asp).

## ANALYSIS

### ***Environment***

#### **Terms and Definitions**

As previously noted, the subject area is almost entirely within the 100-year floodplain of Dogue Creek as well as the associated EQC and RPA. The 100-year floodplain is the flat area adjacent to a main stream channel that has a one percent (1%) chance of being covered by a flood event in any

given year. The majority of the subject property is also a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area. Special Flood Hazard Areas are defined as high risk areas identified by FEMA Flood Insurance Program maps.<sup>1</sup> Floodplain management regulations must be enforced and mandatory purchase of flood insurance applies for Special Flood Hazard Areas.<sup>2</sup>

RPs are defined and delineated under the Chesapeake Bay Preservation Ordinance, which was adopted by the county per the requirements of Virginia's Chesapeake Bay Preservation Act; this Act is applicable to all "Tidewater" localities in Virginia. These are generally localities that have land east of I-95, but also cities and towns surrounded by such localities (e.g. Fairfax City and the towns of Vienna, Clifton and Herndon). RPs are corridors of environmentally sensitive land located alongside or near the shorelines of streams, rivers, and other waterways. Most types of new development are prohibited in RPs. Some disturbances such as infrastructure improvements may be permitted, but most types of land disturbance in RPs must be granted through an RP exception. In Fairfax County, exceptions may be approved by the Board if the proposed disturbance is part of a zoning request. Redevelopment is permitted within RPs if there is no increase in the amount of impervious cover and there is no further encroachment within the RP.

EQCs are environmentally-sensitive lands that are identified and recommended for protection and restoration through the EQC Policy in the Comprehensive Plan. Areas are recommended for inclusion within EQCs based on the criteria as provided in the policy, and the ability to achieve any of the stated purposes of EQCs including habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollutant reduction. The EQC policy also supports the restoration of degraded areas that would otherwise meet the EQC designation criteria. These networks of the county's natural landscapes can also provide passive recreation opportunities, an important function that protects and enriches the quality of life for residents of Fairfax County. There are no regulatory requirements for the protection of EQCs; however, the preservation of EQCs is long-standing Board-adopted policy typically achieved through the development review process, acquisition of parkland, and the donation of easements.

#### Comparison with EQC Policy

The Board specifically requested that staff evaluate the amendment within the context of the Policy Plan guidance addressing EQCs, which includes guidance for considering disturbances to EQCs. The policy recommends that, with some specific exceptions, disturbances to EQCs should only be considered in "***extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits related to most, if not all, of the EQC purposes that are applicable to the proposed disturbances.***" In staff's view, there is not the presence of such an "extraordinary circumstance" which warrants re-planning land that is floodplain, RP, and EQC for residential use. Further, at the time of staff report publication, there was not sufficient evidence that most of the applicable purposes of the EQC (in this case, habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities) would receive a net benefit, or

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<sup>1</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

<sup>2</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

that mitigation/compensation measures demonstrating a clear and substantial net environmental benefit would be provided to offset a residential development at a density up to 8 du/ac.

#### *History of EQC Policy Including EQC Disturbance Considerations*

Given the proposed disturbance to the EQC, a summary of the history and purpose of the adopted EQC policy is provided in this section.

The guidance recommending the protection of EQCs was initially adopted in the 1975 Edition of the Comprehensive Plan and has been refined since that time. The guidance regarding proposed disturbances to EQCs was adopted by the Board in 2010 in response to questions raised in 2009 in conjunction with the approval of a zoning application for the Aerospace Corporation. The application identified the filling of two headwater stream valleys along with a comprehensive EQC restoration effort. At that time, Policy Plan guidance did not account for the consideration of such trade-offs. Therefore, after approving the application, the Board requested a thorough review of the EQC policy as it relates to proposals for disturbance to EQCs. The issue was referred by the Planning Commission to its Environment Committee.

In contemplating circumstances under which such EQC trade-offs should be considered, the Planning Commission's Environment Committee stressed that EQC disturbances should only be supported in extraordinary circumstances; i.e., the consideration of EQC disturbances and possible trade-offs should not be routinely or typically applied. The Planning Commission supported the Environment Committee's proposal to establish the "extraordinary circumstance" benchmark, and the Board adopted this guidance. The term "extraordinary circumstance" was not defined, recognizing the different circumstances could arise among applications, and this guidance would be considered on a case-by-case basis.

Since the 2010 adoption of the Policy Plan guidance addressing disturbances to EQCs, there have been two instances where such disturbances were approved when applying the guidance. In 2015, the Board of Supervisors and BZA approved zoning applications from Fairfax Water and Vulcan Quarry. The ability to reconfigure and convert a portion of the quarry was approved in order to support the long term water supply storage needs of Fairfax County and the region. The quarry would ultimately be able to store approximately 17 billion gallons of water upon completion of the quarry expansion around the year 2085. A small stream valley on the Vulcan Quarry property was proposed to be incorporated within the expanded quarry, and as part of the review of the zoning applications, significant analysis was conducted to understand the impacts of diverting the stream's flow and compensating for its loss. A development condition was included that resulted in Vulcan Quarry preparing and submitting an EQC compensation plan.

The other instance was a Proffered Condition Amendment for Circle Towers in 2011 that included a request for new vehicular access that would result in crossing the RPA and EQC at the western edge of the site. In this case, consideration of the EQC crossing was considered an extraordinary circumstance because of external limitations to proposed improvements for the two existing access points to Circle Towers. Additionally, the applicant had made extensive efforts to provide improved accessibility and circulation through other alternatives. In order to mitigate impacts for the proposed EQC crossing, the applicant both designed a wetland area and habitat to be restored in the existing EQC, and also designed the crossing in an environmentally sensitive manner as a

bridge spanning the EQC rather than a road built on a culvert or filled area. These efforts offset and mitigated the encroachment and impact of the EQC/RPA crossing, and were ultimately determined to provide a net environmental benefit. At the time of staff report publication, the applicant had not pursued redevelopment and the associated mitigations that were part of the approved Proffered Condition Amendment.

#### New Residential Lots and Other Development in Floodplains

As stated previously, the Board's authorization directs staff to consider the effect of development within the EQC, which is mostly coterminous with the 100-year floodplain and RPA. The Policy Plan recommends that new residential structures within flood impact hazard areas be prohibited. Staff is not aware of circumstances where new residential lots have been approved within 100-year floodplains, and the approval of this amendment could be regarded as an example for similar proposals elsewhere requesting new residential lots within floodplains. Further, unless there is a clear demonstration that the circumstances warranting consideration of this amendment are truly extraordinary and not something that could be routinely applied to degraded EQCs elsewhere in the county, the approval of this amendment could have the effect of generating increased development pressure for land use activities that propose disturbances to EQCs.

Another consideration is the potential for impacts to Fairfax County's rating in the FEMA National Flood Insurance Community Rating System. The Community Rating System is a voluntary program that encourages communities to enact floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) standards. Under the Community Rating System, communities may benefit from discounted flood insurance premium rates as a result of community activities that reduce flood losses, facilitate accurate insurance ratings, and promote awareness of flood insurance. Each year, Fairfax County submits an annual recertification. Adjustments could be made to the rating based on a community's mitigation and floodplain management activities.<sup>3</sup> Fairfax County has participated in the program since 1993, and is one of two jurisdictions in Virginia with a rating of Class 6, meaning that property owners can obtain flood insurance at a discount.<sup>4</sup> Comprehensive Plan guidance recommending new development in floodplains, that may be looked to as an example when considering future land disturbance in floodplains, may negatively impact to the county's rating.

#### Noise Considerations

The subject area will continue to be affected by high noise levels generated by traffic on Richmond Highway. VDOT's proposed replacement of the bridge over Dogue Creek with a higher structure may complicate the consideration of available noise mitigation strategies for residential development.

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<sup>3</sup> FEMA Community Rating System Fact Sheet, June 2017. Accessed June 7, 2018. <https://www.fema.gov/media-library-data/1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP CRS Fact Sheet 2017 508OK.pdf>

<sup>4</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

## ***Land Use***

### **Embark Plan Amendment and Revitalization Considerations**

The Embark Richmond Highway planning process resulted in the adoption of corridor-wide guidance that was the outcome of extensive community and stakeholder engagement and refinement based on collective input. One of the overarching principles of the Plan guidance is focusing revitalization and redevelopment in the corridor's nodes (the CBCs), an idea that is also conveyed in the Comprehensive Plan's Concept for Future Development. The corridor-wide guidelines for the Richmond Highway Corridor recommend preserving, enhancing, and restoring the environment by minimizing the impact of development on the natural environment including impacts to water quality and the ecological conditions of streams. The Suburban Neighborhood Areas were recommended to retain their adopted land uses and intensities. Parcel 18C falls outside of the Richmond Highway Corridor and was not included in the Embark planning study.

Specific to the Woodlawn area, the possibility of using the environmental features of Dogue Creek as an amenity for future development was recommended as early as the 1984 Edition of the Comprehensive Plan, which states that “the environmental characteristics of the area [the Dogue Creek EQC] should serve not only as a tool for shaping growth into nodes, but should provide an amenity to all future development in the corridor.” The Embark planning effort was able to, more broadly, bring this guidance to the forefront and recognize that highlighting environmental features could also support revitalization efforts through a new “ecological spine” environmental concept in certain CBCs. As redevelopment occurs, previously impacted streams and waterways are recommended to be improved by removing conveyance pipes and impervious surfaces, restoring environmental functions, and creating passive recreation uses that would not negatively impact the newly daylighted streams. The proposed Plan amendment is counter to the spirit of ecological spines as development that could occur under the proposed amendment would preclude the ability to restore environmental functions within the EQC areas that would be developed. The potential for future restoration of these areas would remain under the current recommendation for private open space. One purpose of the EQC system is to preserve its pollution reduction capabilities. Residential use could result in the introduction of a new level of activity that generates pollutants that would not likely be produced to the same degree through an open space use (e.g., runoff of fertilizers and pesticides used for lawn management).

The subject property was subject to extensive disturbance in the past. In 1955, an outdoor amusement center was approved by the Board of Zoning Appeals (BZA) for Parcel 20, and a private recreation club was approved several months later by the BZA for the remainder of the subject area and the adjoining property to the west. Light industrial uses and related businesses replaced the amusement center beginning in the 1960s and continued for approximately five decades, primarily on Parcels 19 and 20. The uses included vehicle repair; a storage yard for inoperable vehicles, trailers, tires, boats, and construction equipment; and landscaping services. A majority of the uses required the submission and approval of special exception applications, site plans, and/or permits which are not on record with the county. In 2015-2016, the Fairfax County Department of Code Compliance (DCC) conducted inspections that revealed ongoing violations of Zoning Ordinance provisions. The Notice of Violations issued in September 2016 was appealed by the property owner. On June 14, 2017, the BZA upheld the Zoning Administrator regarding the Notice of Violations. Subsequently, the violations were addressed by removing the structures and

the storage yard that were in violation of the Zoning Ordinance provisions. One permitted use, a welding operation, remains on a portion of Parcel 20.

Staff recognizes that the history of uses may generate interest in accommodating some redevelopment. Where appropriate, the county supports redevelopment of uses that could be viewed as inconsistent with revitalization goals. On this site, revitalization considerations are secondary to the many environmental concerns, including the inability to achieve adopted Plan policies for EQCs, EQC disturbances, and recently adopted Richmond Highway Corridor guidance, and the potential consequences of recommending residential use in a floodplain.

#### Parcel Consolidation

The subject property is comprised of an eight-acre consolidated area. One of the benefits of parcel consolidation is the ability to configure development in a manner that minimizes negative impacts, such as environmental disturbance.

#### *Transportation*

An evaluation of trip generation was conducted based on the rezoning applicant's proposal for 43 townhomes (5-6 du/ac) and the site design at the time of staff report publication. The Comprehensive Plan guidance for the Richmond Highway Corridor recommends multimodal connections between the CBCs and SNAs, where appropriate. A grid network to accommodate vehicles, pedestrians, and bicyclists is recommended in the Woodlawn CBC, adjacent to the subject area. The applicant's rezoning application proposes a new road through their site. If the Plan amendment is adopted and the subject area is developed, consideration should be given to configuring the new road in a manner that could connect with the other half of the roadway that would be provided when the Sacramento Center Shopping Center redevelops, provided that analysis is done that weighs the benefits and disadvantages of encroaching into the RPA between the Woodlawn CBC and the subject property with the transportation connectivity goals for the corridor.

An estimated 104 daily vehicular trips are generated by existing uses, and this would increase to 309 trips. This results in an increase of 205 daily trips when compared to the existing uses. A total of 26 morning peak hour trips and 72 afternoon peak hour trips are estimated under a townhouse scenario, this is 27 less vehicular trips during the morning peak hours and 7 less trips during the afternoon peak hours compared with the existing uses. There are currently no trips generated by the planned private open space use; therefore the net increase compared to the adopted Comprehensive Plan is 309 daily trips, 53 morning peak hour trips, and 72 afternoon peak hour trips. The increased number of vehicular trips is not anticipated to cause significant impacts to the transportation network provided that appropriate mitigation is addressed as part of the rezoning review process.

The Board authorization indicates the need for potential development to be consistent with the VDOT Richmond Highway Corridor Improvements Project. The transit, roadway, bicycle, and pedestrian improvements on Richmond Highway will require right-of-way from the subject area. The right-of-way needs, timing of any proposed land development activities, and relevant site design considerations should be coordinated with VDOT to avert potential conflicts with the corridor improvements project.

### **Public Schools**

The schools analysis evaluated the potential impact to the public schools serving the subject area under the maximum residential density under consideration (8 du/ac). Based on 64 single-family attached residential units, a total of 30 students are estimated using the most current countywide student yield ratio at the time of the analysis, as shown in Figure 5. The schools that serve the study area are Mount Vernon High School, Whitman Middle School, and Washington Mill Elementary School. Based on school capacity as of January 2018, Mount Vernon and Whitman schools are under capacity (at 84% and 79% of their capacity, respectively) and Washington Mill is over capacity (at 116% percent). The capacity and projected enrolled is based on the adopted Fiscal Year 2019-2023 Capital Improvements Program (CIP). The CIP identifies a number of potential solutions to alleviate current and projected school capacity deficits, including program changes, capacity enhancement through a modular or building addition, and boundary adjustment with schools having a capacity surplus. Any options chosen to address school capacity would be discussed through a public process with stakeholder and community engagement, in accordance with School Board Policies and Regulations.

School Level	Proposed Student Yield
High	9
Middle	4
Elementary	17

Figure 5: Student Yield by School Level

### **Parks & Recreation**

The parks analysis evaluated 64 single-family attached residential units to estimate the greatest potential impact to the parks serving the subject area under the maximum residential density under consideration (8 du/ac). The additional residents from this level of development would generate the need for an additional 0.92 acres of local park space and 2.39 acres of district/countywide park space, using the average household size of a single-family attached unit for the Mount Vernon Planning District (2.93 people/single-family attached unit). Residential projects are recommended to offset impacts to parkland and park facilities for which there are adopted service level standards through monetary or “in-kind” contributions to serve the corridor.

As mentioned previously, Dogue Creek runs along the shared eastern boundary of Pole Road Park and the subject area. If the amendment is approved and development occurs, any development should provide for the treatment of invasive species and use only native plants for landscaping, seed mixes, and erosion control. Due to the extent of the floodplain on the subject area and adjoining park, seeds could be more easily transported and spread to the adjoining parkland, therefore the use of native species and treatment of invasive species is of particular importance.

Due to the previous disturbance on Parcels 19 and 20, there is a low probability of significant cultural resources on this portion of the site and additional archaeological study is not warranted. Parcel 18C has less disturbance, therefore a Phase I archaeological survey, followed by Phase II archaeological testing and Phase III archaeological data recovery, as appropriate, should be considered.

### ***Heritage Resources***

The Comprehensive Plan guidance for the Richmond Highway Corridor notes the importance of considering a development's potential impacts to resources in two historic overlay districts (HOD) proximate to the corridor, Woodlawn and Huntley. A portion of the subject area is within the Woodlawn Historic Overlay District (HOD). Should the amendment be approved and development pursued, the design of the proposed development should be sensitive to the heritage resources within the Woodlawn HOD, including historic roadways. If potential impacts to the viewsheds from Huntley or Woodlawn are identified, mitigation should be pursued through modified building height, the use of non-reflective building materials, and/or other approaches.

### **CONCLUSION**

The proposed amendment generates considerable concerns when evaluated within the context of three main considerations expressed in the Board's authorization: residential use; Policy Plan guidance for EQCs and disturbances to EQCs; and consistency with VDOT's Richmond Highway project.

In terms of the appropriateness of residential use on the subject property, new residential development that significantly encroaches into a floodplain and EQC and would require filling in a floodplain is contrary to long-established county policy and newly adopted Plan recommendations for the Richmond Highway Corridor. There is also concern about the potential for precedent with countywide implications; unless there is a clear demonstration that the circumstances warranting consideration of this amendment are truly extraordinary and not something that could be routinely applied elsewhere in the county, the approval of this amendment could have the effect of generating increased development pressure for land use activities that propose disturbances to EQCs.

As for the EQC policy, all of the stated purposes of EQCs are applicable to this site (habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities). Under the recommendation for private open space, there is potential to restore those EQC functions. The current Plan reflects the inherent environmental value of the subject area (EQC, RPA, and floodplain). Staff recognizes that the history of uses and extent of previous disturbance may generate interest in accommodating some redevelopment. However, establishing new residential lots within the floodplain is not the appropriate course of action to achieve the desired outcome. A clear and net substantial environmental benefit and a net benefit to the applicable purposes of the EQC would not be gained from re-planning the subject property from open space to residential use at density up to 8 du/ac, and is also of concern.

Lastly, in terms of consistency with the Richmond Highway Corridor Improvements Project, Dogue Creek on and near the subject area has ongoing streambank erosion and channel stability issues. The potential for the release of accumulated sediment furthers concerns about the unstable stream condition. Additional discussions about these outstanding concerns and an identification of a preferred course of action are critical in order to assess whether redevelopment could be consistent with the bridge and related aspects of VDOT's efforts.

## **RECOMMENDATION**

It is staff's view that the amendment creates conflicts with established Comprehensive Plan policy and would create adverse precedent relating to new residential development within floodplains. Adequately addressing the concerns regarding the stability of the Dogue Creek channel, erosion, and VDOT's Richmond Highway project requires further coordination and discussion. Staff does not support this amendment.



**PROPOSED  
COMPREHENSIVE PLAN  
AMENDMENT ADDENDUM**

**ITEM:** PA 2018-IV-MV2  
Original Staff Report published July 5, 2018  
Date of Addendum: October 3, 2018

**GENERAL LOCATION:** North of Richmond Highway, west of Sacramento Center, east of Pole Road Park

**SUPERVISOR DISTRICT:** Mount Vernon

**PLANNING AREA:** Area IV

**PLANNING DISTRICT:**

Mount Vernon Planning District

**SUB-DISTRICT DESIGNATION:**

Richmond Highway Corridor Area,  
MV8 Woodlawn Community Planning Sector

**PARCEL LOCATION:** 109-2 ((1)) 18C, 19, and 20

For additional information about this amendment call (703) 324-1380.

**PLANNING COMMISSION:**

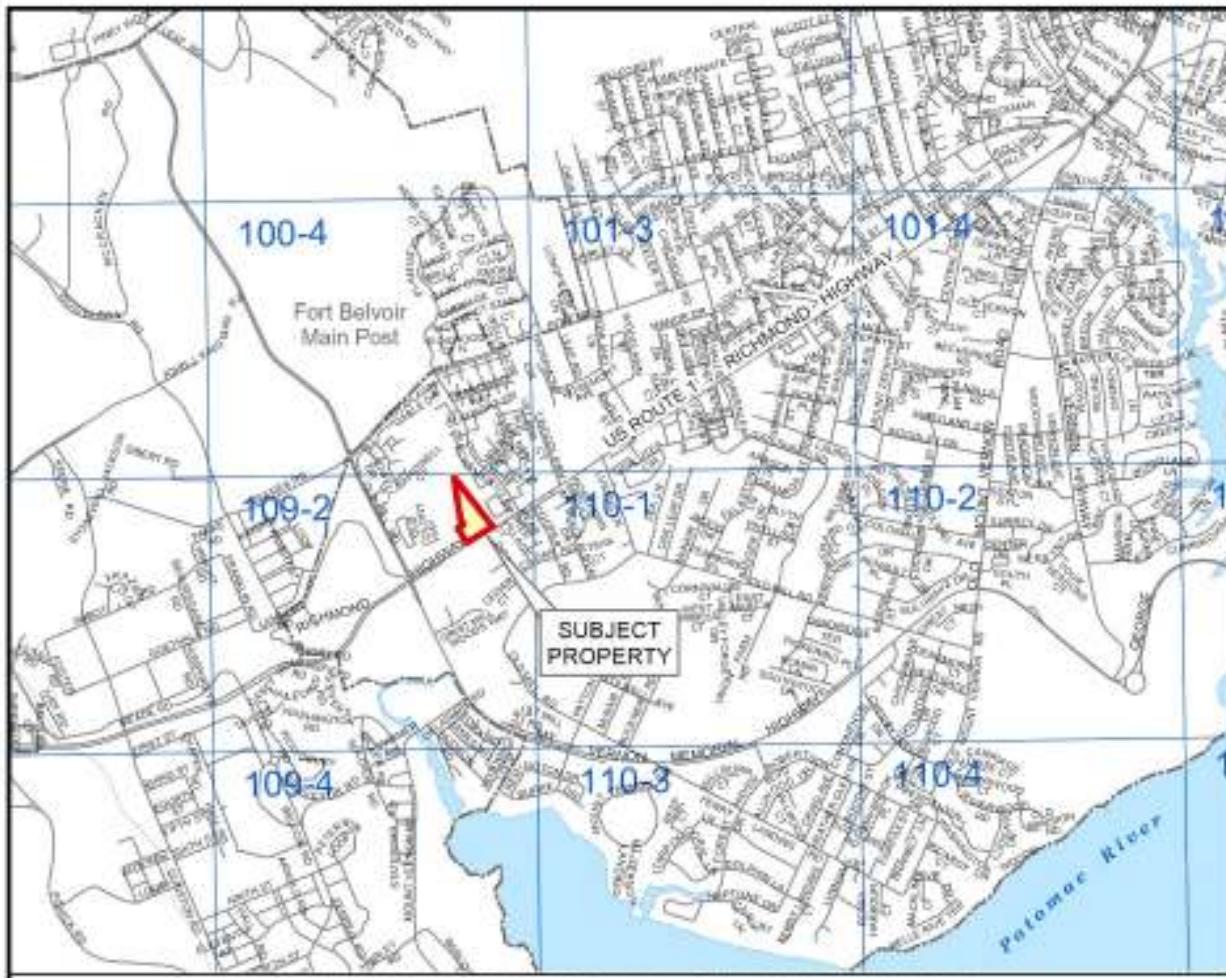
Public meeting held Thursday,  
July 19, 2018 @ 7:30 PM

Public hearing scheduled for Wednesday,  
October 24, 2018 @ 7:30 PM

**BOARD OF SUPERVISORS PUBLIC HEARING:**  
Tuesday, November 20, 2018 @ 4:30 PM

**PLANNING STAFF DOES NOT RECOMMEND  
THIS ITEM FOR PLAN AMENDMENT**

Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.



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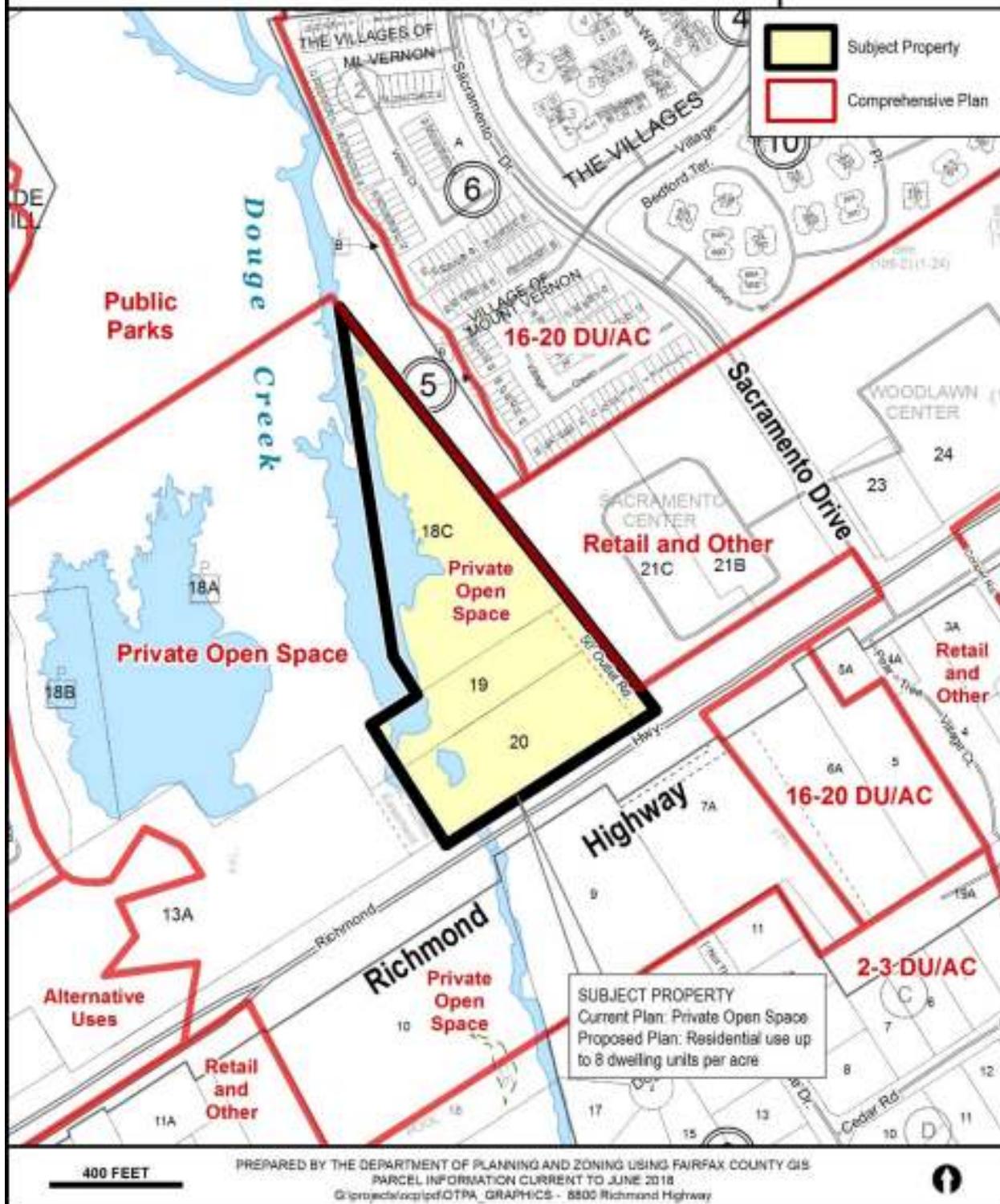
PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS  
8800 Richmond Highway



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**CURRENT PLAN AND PROPOSED CHANGE**  
PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR  
SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

ITEM:  
**PA 2018-IV-MV2**



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**PLAN AMENDMENT 2018-IV-MV2**  
**STAFF REPORT ADDENDUM**  
**Published October 3, 2018**

The staff report addendum addresses issues and requests raised at the July 19, 2018 Planning Commission meeting for proposed Comprehensive Plan amendment 2018-IV-MV2 (8800 Richmond Highway), as well as additional requests and considerations raised subsequent to the meeting. The staff report published on July 5, 2018 can be found at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy). The Plan amendment is concurrently under review with Rezoning and Final Development Plan application RZ/FDP 2016-MV-018 and Special Exception application SE 2016-MV-016. Consult [ldsnet.fairfaxcounty.gov/ldsnet/CurrentInProcessBOS.aspx](http://ldsnet.fairfaxcounty.gov/ldsnet/CurrentInProcessBOS.aspx) for information on these applications.

## **BACKGROUND**

### *Plan Amendment Authorization*

On March 6, 2018, the Board of Supervisors (Board) authorized consideration of a Plan amendment for an approximately eight-acre area located at 8800 Richmond Highway, as shown on the maps on the previous pages. The Board requested that staff evaluate residential use at a density up to 8 du/ac for the subject property, which is planned for private open space. In addition to evaluating residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform with Policy Plan guidance for Environmental Quality Corridors (EQCs), including the demonstration of any circumstances that merit disturbance the EQC, and that EQC disturbance is mitigated/compensated by measures that result in a net environmental benefit to the parcels and net benefits related to most, if not all, of the purposes of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed development to be consistent with the Virginia Department of Transportation (VDOT) Richmond Highway Corridor Improvements Project.

### *Public Hearings*

A Planning Commission meeting was held on July 19, 2018. A public hearing before the Planning Commission has been scheduled for October 24, 2018 at 7:30 p.m. as explained in the memo included as Attachment A on page 9. The testimony from the July 19 meeting has been transcribed and can be found on the Plan amendment webpage at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy) and the Planning Commission calendar at [www.fairfaxcounty.gov/planningcommission/sites/planningcommission/files/assets/calendar/2017/october2017.pdf](http://www.fairfaxcounty.gov/planningcommission/sites/planningcommission/files/assets/calendar/2017/october2017.pdf). Any speakers who wish to have their July testimony considered by the Planning Commission should email [Plancom@fairfaxcounty.gov](mailto:Plancom@fairfaxcounty.gov) or call the Planning Commission office at 703-324-2865 and identify the portion of the transcript to be submitted in lieu of or to supplement testimony at the October 24 public hearing. The Board of Supervisors public hearing is scheduled for Tuesday, November 20, 2018 at 4:30 p.m. Note this time is an update to the information included in the memo shown as Attachment A.

*Staff Recommendation*

Staff recommends retaining the adopted Comprehensive Plan recommendation for private open space. Staff's analysis can be found in the staff report published July 5, 2018 at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy).

**DISCUSSION**

A number of considerations specific to the development proposal for RZ/FDP 2016-MV0-018 and SE 2016-MV-016 were mentioned at the Planning Commission's July 19 meeting. While these matters are typically the focus of the staff report and public hearing for the rezoning and special exception applications, because extensive discussion ensued and interest in these applications was expressed by the Planning Commission and the public in July and following the meeting, this section of the addendum provides updated information and additional considerations related to the concurrent applications that may be pertinent to the evaluation of the proposed Plan amendment.

*Updates*

Topic 1: Impacts to Dogue Creek - whether the proposed development would have any negative effect on Dogue Creek

In staff's view, issues regarding potential adverse impacts to Dogue Creek have not been definitively resolved. While information has been provided by the applicant identifying a reduction in phosphorus runoff as a result of the development proposal, there is a need to consider more broadly the potential impacts to Dogue Creek and water quality that could result from the proposed development, particularly in relation to the potential for erosion and sedimentation. Staff and representatives of the applicant have engaged in numerous conversations about these concerns, and further discussion is anticipated as the review of the rezoning application continues. An assessment of potential impacts or benefits to Dogue Creek and its RPA and EQC should include an analysis of the environmental corridor more holistically beyond phosphorus runoff. This type of analysis is needed to assess conformance with the Board's EQC policy and other environmental goals and objectives.

Topic 2: Dogue Creek Floodplain Revision – information about the applicant's floodplain study

The purpose and intent of the Floodplain Ordinance is "to protect against loss of life, health, or property from flood or other dangers." As such, the applicant is required to conduct a floodplain study to demonstrate the proposed development would not raise flood elevations. In light of the magnitude of the pending floodplain revision that is explained in the following paragraphs, the development plan under the proposed Plan amendment density of 8 du/ac may be determined to be contrary to the purpose and intent of the Floodplain Ordinance. Modeling a 100-year recurrence interval flood is a statistical approach to risk reduction, and the inherent inaccuracies of estimating flood flows further underscores the importance of land preservation and safe development practices near sources of flooding.

Since the staff report publication and Planning Commission meeting in July, staff identified that the existing FEMA floodplain report used in previous floodplain studies underestimated flood

flows as 4,250 cubic feet per second (cfs) where 8,377 cfs more accurately represents the discharge.

The applicant's materials to date have included floodplain information based on the effective FEMA hydraulic analysis report for Dogue Creek. The Fairfax County Department of Land Development Services (LDS) approved the applicant's most recent floodplain study, #5271-FPV-002-A-1, based on the flow data in the effective FEMA report. The applicant's study showed the proposed development would not raise flood elevations by placing the proposed fill. Since that time, VDOT shared hydrologic analysis with the County showing that flood flows are underestimated in the effective FEMA floodplain report. The County concurs with the hydrologic assessment performed by VDOT and notified the applicant on September 7, 2018 that a new floodplain study is required to reflect the significantly higher and more accurate flow rates. Floodplain elevations at the site are anticipated to be 1.0 to 2.5 feet higher than in the effective FEMA floodplain study, and the applicant's most recent floodplain study, and will be confirmed in subsequent submissions of the floodplain study.

Topic 3: Environmental Improvement - whether the proposed development improves the environmental condition of the property compared to its current condition

Several factors are critical in the evaluation of potential environmental benefits and/or improvements. These include: the extent of the proposed EQC restoration; the extent of the natural buffer that will be restored/protected between the proposed development and the stream and its associated wetlands; proposed changes to drainage conditions on the subject area (including measures that will be taken by the applicant to resolve erosion and sedimentation concerns related to the drainage issues as described in the staff report); tree planting and preservation; landscaping; and invasive plant management. At the time of staff report addendum publication, the above mentioned factors are actively being discussed between staff and the applicant, and staff cannot conclude that the proposed rezoning application would result in an overall environmental improvement. These issues necessitate continued discussion during the review of the rezoning application if a Plan amendment is adopted.

Topic 4: Stream buffer – whether there is a standard for a minimum buffer distance

Virginia's Chesapeake Bay Preservation Area Designation and Management Regulations, which establish the required parameters of the county's Chesapeake Bay Preservation Ordinance, require that a "vegetated buffer not less than 100-feet wide be located adjacent to and landward of all tidal shores, tidal wetlands, certain associated non-tidal wetlands, and along both sides of all water bodies with perennial flow".<sup>1</sup> The Regulations also state, "to minimize the adverse effects of human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100-foot wide buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff shall be retained if present

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<sup>1</sup> Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance. "Riparian Buffers Modification & Mitigation Guidance Manual." September 2003, reprinted 2006. *Virginia Department of Environmental Quality*. [www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf), page 1. Accessed September 2018.

and established where it does not exist.”<sup>2</sup> Fairfax County has added to this state minimum-required buffer area all “major floodplain” areas, which are 100-year floodplains of streams/watercourses with drainage areas of 360 acres or more.

The following diagram illustrates many of the benefits provided by riparian forest buffers and depicts the ranges in minimum buffer widths that are recommended to achieve these benefits. The range and extent of benefits grow with increasing buffer widths. Relatively narrow buffer areas provide limited benefits.

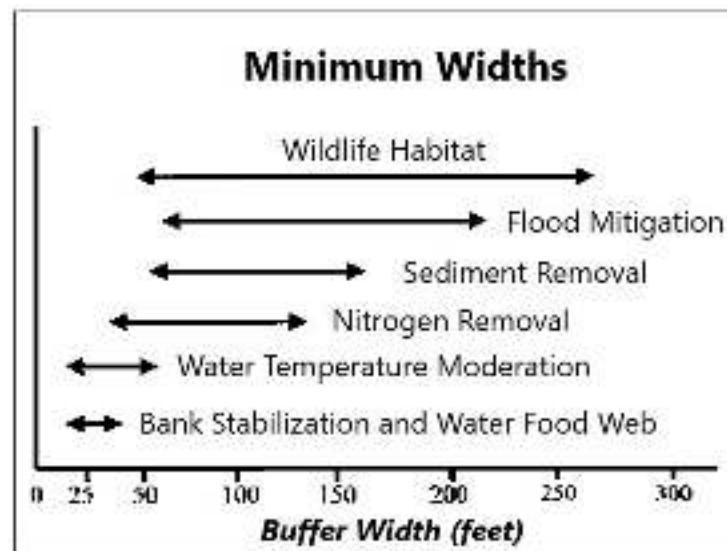


Figure 6-3. Range of minimum widths for meeting specific buffer objectives.

Source: United States Department of Agriculture. “Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers.” May 1997, revised June 1998.

*Chesapeake Bay Program.* [www.chesapeakebay.net/content/publications/cbp\\_13019.pdf](http://www.chesapeakebay.net/content/publications/cbp_13019.pdf), Section IV, page 6-8, Figure 6-3.

#### *Response to Cited Rezoning Application RZ/FDP 1998-LE-055*

At the Planning Commission meeting on July 19, 2018, RZ/FDP 1998-LE-055 (Hybla Valley Property LLC) was referenced by a representative of the rezoning applicant (Mark Viani) as an example of a development plan that included new residential lots in a floodplain. The purpose of the following discussion is to provide additional information regarding staff’s evaluation and the approved development plan that was not available at the July 19 meeting.

Attachment B, pages 10-11, shows the approved development plan with the 100-year floodplain delineation highlighted in yellow. Two lots are identified as being partially within the 100-year floodplain; the lots are designated “Lot A” and “Lot B” for the purposes of explanation in this staff report addendum.

<sup>2</sup> Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance. “Riparian Buffers Modification & Mitigation Guidance Manual.” September 2003, reprinted 2006. *Virginia Department of Environmental Quality.* [www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf), page 101. Accessed September 2018.

For “Lot A”, the 2<sup>nd</sup> Addendum to the Environmental Assessment dated August 30, 2000 includes the following on page 2: “in light of the location of this area near the proposed culvert crossing (and the disturbance that will be needed for this crossing), the disturbance that has already occurred in this area, and the broad expanse of the floodplain in this area, this Branch [Environment and Development Review, Planning Division] does not object to these minor encroachments.”

For “Lot B”, page 2 of the same report states, “with the exception of [Lot A], the development plan should be revised such that all private lot areas will be located outside of the 100-year floodplain areas and that no clearing and grading for residential development will occur within such areas. Prior to DPWES approval of the floodplain study, the applicant dealt with this concern by including with the draft proffers a commitment that ‘all private lots shall be located outside the limits of the final boundaries of the flood plain areas as approved by DPWES.’ ” As shown on the development plan, “Lot B” was left vacant. Ultimately, this lot was not established through the subdivision process.

During a conversation with staff subsequent to the July 19 meeting, Mr. Viani highlighted a statement from the August 30, 2000 memorandum expressing the Environment and Development Review Branch’s opposition to “the expansion of the geographic extent of the 100-year floodplain such that private lot areas would be located within the floodplain (either existing or post-development) or such that clearing or grading will be needed in the floodplain . . .”. Mr. Viani raised the concern that the statement suggested staff’s opposition to modifying the floodplain delineation based on an updated floodplain study. While staff does not recall the specific context behind this statement, it is likely this concern addressed the effect that the proposed development would have on the floodplain boundaries and the need to ensure any changes in these boundaries would not result in private lots in floodplains, rather than a dismissal of updated floodplain information. Regardless of the context, the statement did not support the inclusion of private lot areas within the floodplain, with the noted exception of “Lot A”. It is staff’s view that the corners of residential lots encroaching into the floodplain is not analogous to the floodplain impact that would be anticipated through development of residential use up to 8 du/ac that is being evaluated.

#### *Countywide Resource Protection Area (RPA) and Floodplain Data*

Staff received a request from a Planning Commissioner regarding countywide and magisterial district floodplain, EQC, and RPA acreage data, as well as related information regarding private or public ownership, location within or outside of revitalization districts, and impervious cover. Data about EQC acreage is not readily available, however floodplain and RPA data is provided in this section. Tables A through D contain countywide floodplain and RPA acreage information. Tables E and F contain data about impervious acreage. Table G includes data by Supervisor district. The information is aggregated from parcel data and excludes rights-of-way.

Approximately 40,780 acres, or 15.7 percent of the county, is located within RPA *and/or* floodplain. Approximately 20,220 acres, or 7.7 percent of the county, is located in both RPA *and* floodplain. Sully District contains the most acreage in both RPA *and* floodplain, followed by Mount Vernon and Springfield Districts. Together, these three districts contain over 57 percent of the land in the county that is both in RPA *and* floodplain. Of the countywide acreage that is in

RPA *and* floodplain, 530 acres are categorized as impervious. Mount Vernon District contains 285 acres, or over 70 percent of privately owned impervious acreage within RPA *and* floodplain.

Table A: Countywide area within floodplain

Countywide area within floodplain	21,364	acres
<b>Ownership</b>		
Publicly Owned	11,843	acres
Private/Other	9,521	acres
<b>Revitalization District</b>		
In	38	acres
Out	21,326	acres

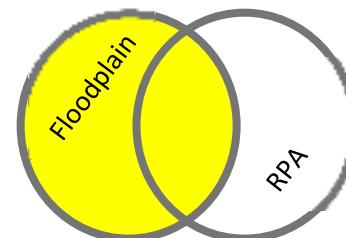
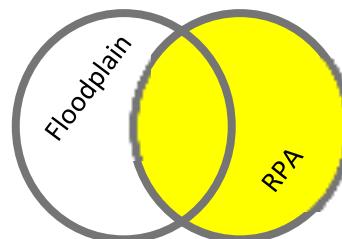
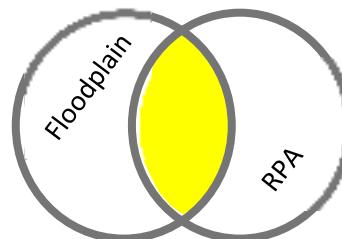


Table B: Countywide area within RPA

Countywide area within RPA	39,738	acres
<b>Ownership</b>		
Publicly Owned	19,640	acres
Private/Other	20,098	acres
<b>Revitalization District</b>		
In	73	acres
Out	39,665	acres

Table C: Countywide area within both floodplain *and* RPA

Countywide area within both floodplain <i>and</i> RPA	20,218	acres
<b>Ownership</b>		
Publicly Owned	11,563	acres
Private/Other	8,655	acres
<b>Revitalization District</b>		
In	34	acres
Out	20,184	acres

Table D: Countywide area within floodplain *and/or* RPA

Countywide area within floodplain <i>and/or</i> RPA	40,783	acres
<b>Ownership</b>		
Publicly Owned	19,851	acres
Private/Other	20,932	acres
<b>Revitalization District</b>		
In	80	acres
Out	40,703	acres

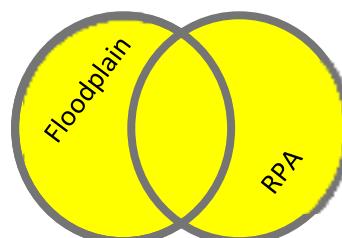


Table E: Countywide **impervious area** within both floodplain *and* RPA

Countywide impervious area within both floodplain <i>and</i> RPA	530	acres
<b>Ownership</b>		
Publicly Owned	127	acres
Private/Other	403	acres
<b>Revitalization District</b>		
In	12	acres
Out	518	acres

Table F: Countywide **impervious area** within floodplain *and/or* RPA

Countywide impervious area within floodplain <i>and/or</i> RPA	2,058	acres
<b>Ownership</b>		
Publicly Owned	202	acres
Private/Other	1,856	acres
<b>Revitalization District</b>		
In	36	acres
Out	2,022	acres

Table G: Data by Supervisor District

Supervisor District	Area within floodplain and/or RPA (acres)	Area within both floodplain and RPA (acres)	Privately owned impervious area within floodplain and/or RPA (acres)	Privately owned impervious area within both floodplain and RPA (acres)
Braddock	2,770	1,466	124	5
Dranesville	6,106	2,802	155	18
Hunter Mill	3,299	1,733	175	13
Lee	2,523	770	150	9
Mason	1,652	732	162	34
Mount Vernon	8,443	3,910	623	285
Providence	1,835	1,056	193	15
Springfield	8,411	3,517	183	14
Sully	5,744	4,231	91	10
<i>Total</i>	<i>40,783</i>	<i>20,218</i>	<i>1,856</i>	<i>403</i>

*Draft Comprehensive Plan Text*

The Planning Commission requested that staff provide a response to draft text provided by Mr. Viani at the July 19 Planning Commission meeting or alternative draft Plan text. Attachment C, pages 12-13, is staff's alternative draft Plan text. Attachment D, pages 14-15, is Planning Commissioner Clarke's alternative draft Plan text. Attachment E, pages 16-17, is Commissioner Clarke's draft modified by staff's suggested draft. In light of the environmental characteristics of the subject property, some of which have significance beyond property lines (i.e. Dogue Creek), staff's version includes conditions that with appropriate implementation would mitigate many of the environmental concerns associated with a recommendation for residential use up to 8 du/ac. While staff is not recommending changes to the adopted Comprehensive Plan guidance for the subject area, draft Plan text is offered for the Planning Commission's consideration if an amendment to the Comprehensive Plan is supported.

Attachment A: Memo dated August 30, 2018



County of Fairfax, Virginia

**MEMORANDUM**

**DATE:** August 30, 2018

**TO:** Supervisor Dan Storch  
Planning Commissioner Walter Clarke

**FROM:** Fred Seiden, Director of ~~PPS~~  
Department of Planning and Zoning (DPZ)

**SUBJECT:** New Planning Commission Public Hearing for Comprehensive Plan  
Amendment 2018-IV-MV2 (8800 Richmond Highway)

On March 6, 2018, the Board of Supervisors authorized consideration of a proposed Comprehensive Plan amendment for an approximately eight-acre area located at 8800 Richmond Highway, comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. The Board of Supervisors requested that staff evaluate residential use at a density up to 8 dwelling units per acre (du/acre) for the subject area, which is currently planned for private open space. In addition to residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform to Policy Plan guidance on BQC's. The authorization also identified a need for proposed redevelopment to be consistent with the VDOT widening of Richmond Highway.

On July 19, 2018, the Planning Commission held a public hearing for PA 2018-IV-MV2 and recommended deferring the decision to September 13, 2018. Because the staff recommendation is to retain the adopted Plan for private open space, proposed revisions to the Plan guidance were not included in the staff report or available for public review ahead of the hearing. The Virginia Code requires, however, that a Plan amendment ad identify a place in the locality where copies of the proposed amendment are available for examination. Given the absence of any such amendment text before the hearing, the most prudent course of action is to advertise a new Planning Commission public hearing and have draft Plan text available.

Therefore, a new Planning Commission public hearing date has been scheduled for October 24, 2018 at 7:30 pm and the Board of Supervisors public hearing is now scheduled to November 26, 2018 at 4:00 pm. We will make every effort to avoid delays to the consideration of the associated rezoning application as a result of having to hold this new public hearing.

We regret the inconvenience this will cause to the Planning Commission, Board of Supervisors and the many community members who are interested in this proposed Comprehensive Plan amendment.

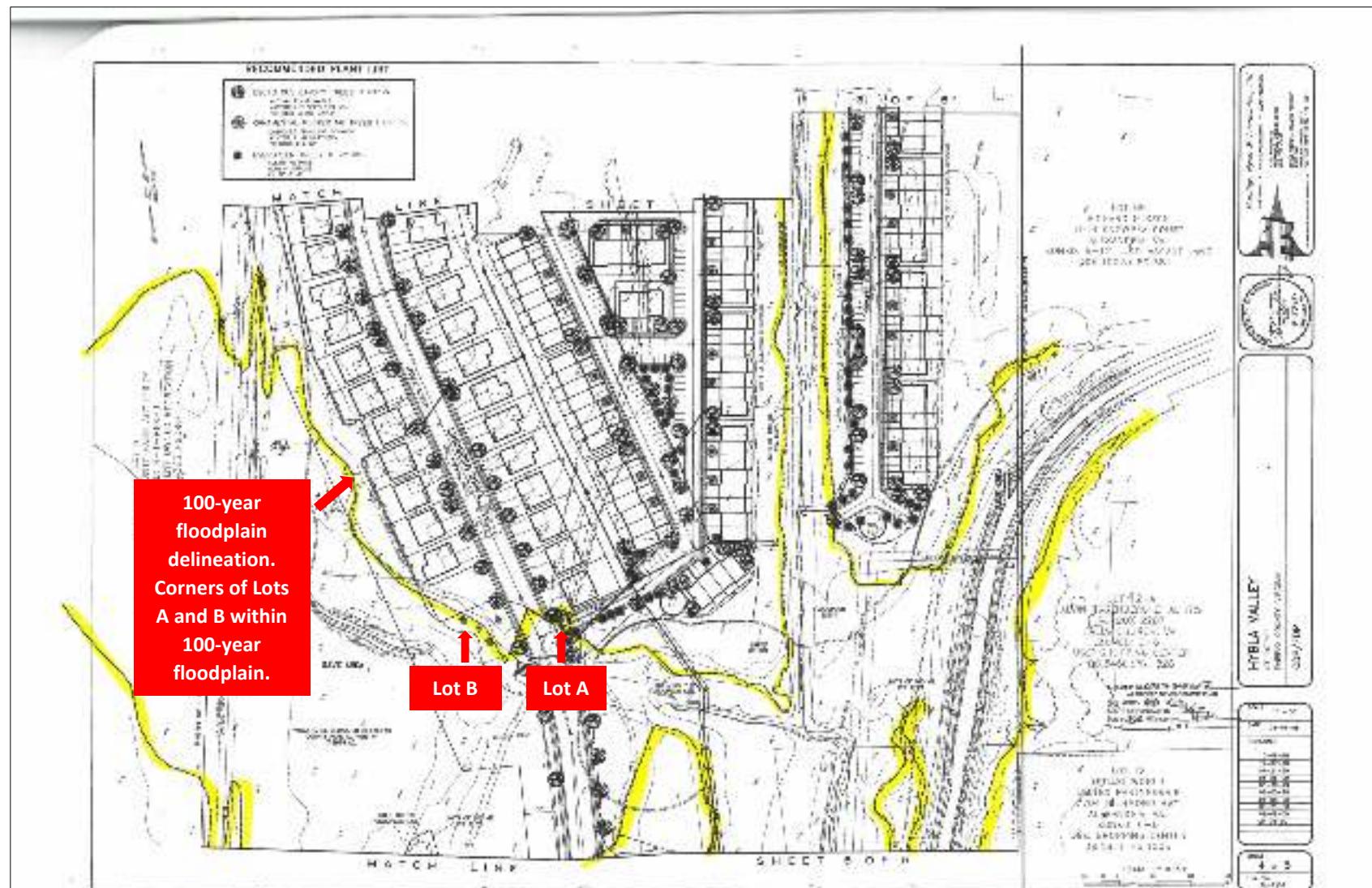
Please contact me at 703-324-1262 with questions or to discuss further.

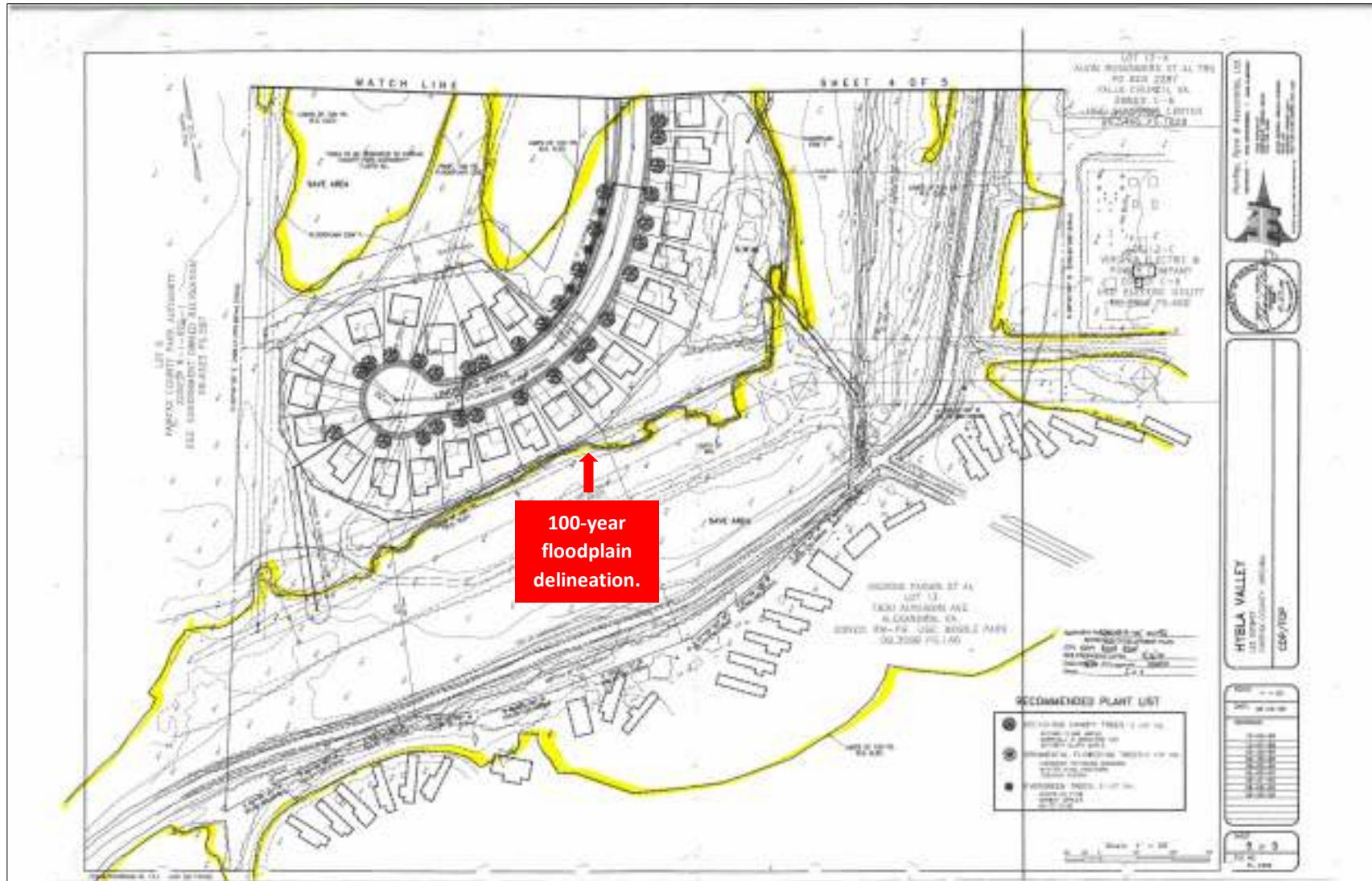
Excellence • Innovation • Stewardship  
Integrity • Teamwork • Public Service

Department of Planning and Zoning  
Planning Division  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035-5507  
Phone: 703-324-1380  
Fax: 703-653-9447  
[www.fairfaxcounty.gov/planning-zoning](http://www.fairfaxcounty.gov/planning-zoning)



Attachment B: Sections of approved development plan for RZ/FDP 1998-LE-055





Attachment C: Staff draft Plan text

Text proposed to be deleted is shown with ~~strikethrough~~. Text proposed to be added is shown as underlined.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

“1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, ~~and 20,~~ and 18C on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on a limited portion of Tax Map Parcels 109-2 ((1)) 19, 20, and 18C at a density up to 5-8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Development should provide a street network that is coordinated and/or aligned with the planned grid in the Woodlawn CBC. Density may be limited by the need to achieve the conditions for this option. Since the majority of the area is in the floodplain of Dogue Creek, measures should be taken to minimize and mitigate the environmental impact and ensure development is protected from potential flood-related impacts. Under the residential option, the following conditions should be met:

- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Restore a minimum 100-foot vegetated buffer landward from the banks of Dogue Creek and other perennial channels and the maximum extent of connected and contiguous wetlands;
- Reduce encroachment into the RPA and EQC compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities;
- Coordinate with state, federal and local government agencies to ensure development is in harmony with and will not impede improvements to Richmond Highway;
- Ensure the Dogue Creek stream alignment and erosion concerns near the roadbed of Richmond Highway are addressed consistent with the Virginia Department of Transportation’s planned improvements and replacement of the bridge over Dogue Creek;
- Identify a stream channel alignment for the restoration of Dogue Creek agreeable to Fairfax County, the State of Virginia and the United States Army Corps of Engineers. Reserve the land needed to achieve the alignment and allow Fairfax County and/or other entities to implement the channel realignment and related restoration efforts if these actions are not completed as part of the residential development;
- Consider restoring the channel of Dogue Creek using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage.

In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC;

- Ensure that environmental restoration efforts pursued in conjunction with development will be effective and viable over the long term. This could include the establishment of criteria to measure restoration efforts, monitoring of the success of restoration efforts over time (with triggers for corrective action) and consideration of measures that can support appropriate management of restored areas in perpetuity.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018:

Figure 1, page 2; Figure 2, page 5; Figure 4, page 26; Figure 56, page 146; Figure 64, page 160; Figure 72, page 180:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Land Use Plan Map, amended through July 31, 2018 to include Plan Amendment Number 2017-15:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area Plans and Policy Plan:

Revise figures and text references as needed to reflect the expanded boundary area.

Attachment D: Planning Commissioner Clarke draft Plan text

Text proposed to be deleted is shown with ~~strikethrough~~. Text proposed to be added is shown as underlined.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

“1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, ~~and 20, and 18C~~ on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on Tax Map Parcels 109-2((1)) 19, 20, and 18C at a density up to 8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Due to the fact that much of the site has historically been used for light industrial uses and that a portion of Dogue Creek and its associated floodplain are located on the site, measures should be taken to mitigate environmental impacts and ensure development is protected from potential flood-related impacts. Environmental restoration efforts in conjunction with development should be effective and viable over time. Under the residential option, the following should be considered:

- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Create a vegetated buffer along Dogue Creek to generally meet the intent of the Chesapeake Bay Preservation Act;
- Reduce the extent of impervious surfaces in the RPA compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities commensurate with existing conditions and the scope of the proposed residential development;
- Ensure development is in harmony with planned improvements to Richmond Highway; and
- Consider restoring a portion of the original channel of Dogue Creek located on the subject property using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage. In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC;

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018:

Figure 1, page 2; Figure 2, page 5; Figure 4, page 26; Figure 56, page 146; Figure 64, page 160; Figure 72, page 180:

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**MODIFY:** Fairfax County Comprehensive Land Use Plan Map, amended through July 31, 2018 to include Plan Amendment Number 2017-15:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area Plans and Policy Plan:

Revise figures and text references as needed to reflect the expanded boundary area.

Attachment E: Commissioner Clarke's draft modified by staff's draft using ~~strike through~~ and underline. Proposed figure and map modifications are the same and therefore not repeated below.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

"1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, 20, and 18C on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on a limited portion of Tax Map Parcels 109-2((1)) 19, 20, and 18C at a density up to 5- 8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Development should provide a street network that is coordinated and/or aligned with the planned grid in the Woodlawn CBC. Density may be limited by the need to achieve the conditions for this option. Since a majority of the area is in the floodplain of Dogue Creek, Due to the fact that much of the site has historically been used for light industrial uses and that a portion of Dogue Creek and its associated floodplain are located on the site, measures should be taken to minimize and mitigate the environmental impacts and ensure development is protected from potential flood-related impacts. Environmental restoration efforts in conjunction with development should be effective and viable over time. Under the residential option, the following conditions should be considered be met:

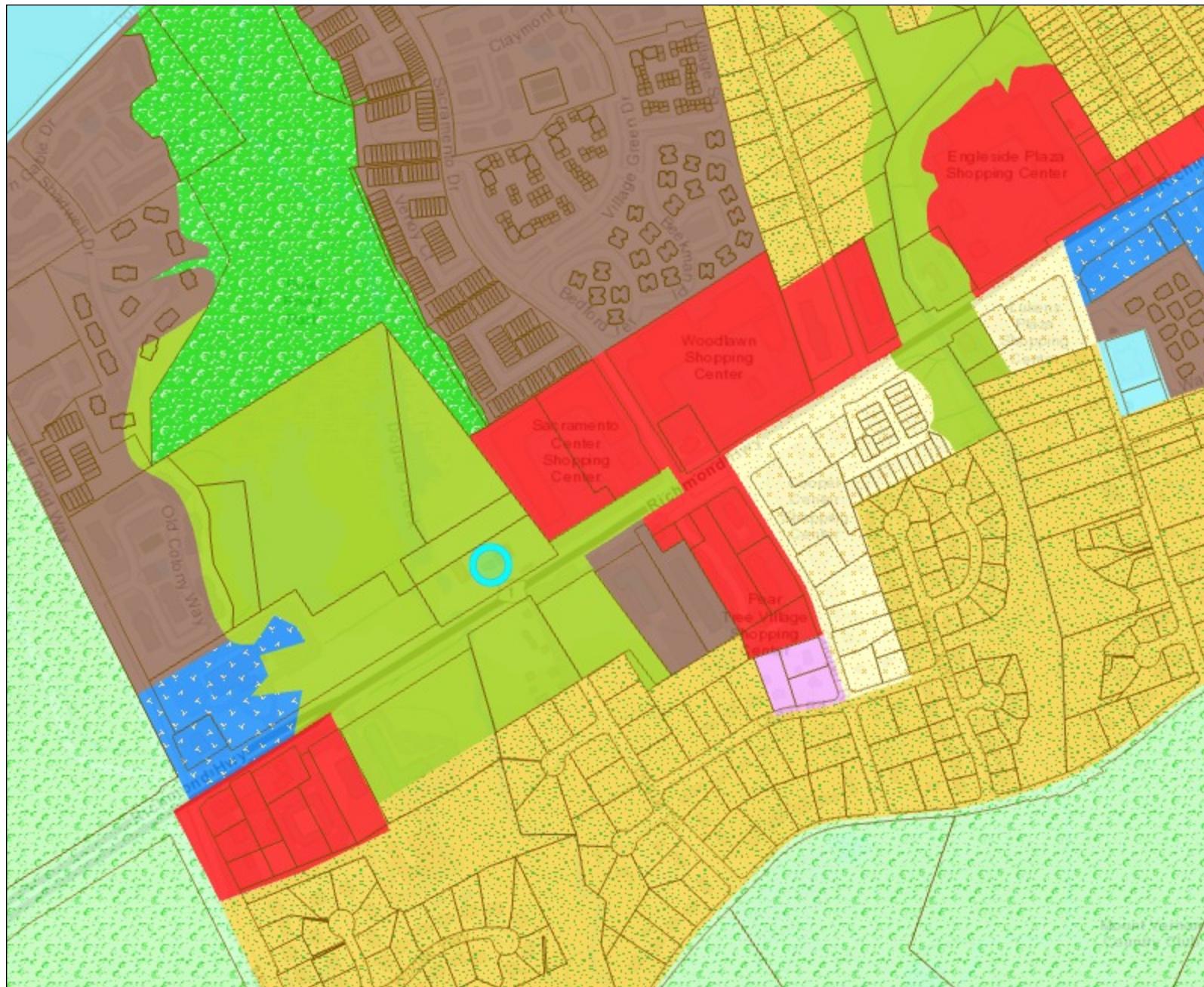
- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Restore a minimum 100-foot Create a vegetated buffer landward from the banks of along Dogue Creek and other perennial channels and the maximum extent of connected and contiguous wetlands to generally meet the intent of the Chesapeake Bay Preservation Act;
- Reduce encroachment into the RPA and EQC the extent of impervious surfaces in the RPA compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities ~~commensurate with existing conditions and the scope of the proposed residential development;~~
- Coordinate with state, federal and local government agencies to Ensure development is in harmony with and will not impede planned improvements to Richmond Highway;
- Ensure the Dogue Creek stream alignment and erosion concerns near the roadbed of Richmond Highway are addressed consistent with the Virginia Department of Transportation's planned improvements and replacement of the bridge over Dogue Creek;
- Identify a stream channel alignment for the restoration of Dogue Creek agreeable to Fairfax County, the State of Virginia and the United States Army Corps of Engineers. Reserve the land needed to achieve the alignment and allow Fairfax

County and/or other entities to implement the channel realignment and related restoration efforts if these actions are not completed as part of the residential development;

- Consider restoring a portion of the original the channel of Dogue Creek located on the subject property using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage. In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC; and
- Ensure that environmental restoration efforts pursued in conjunction with development will be effective and viable over the long term. This could include the establishment of criteria to measure restoration efforts, monitoring of the success of restoration efforts over time (with triggers for corrective action) and consideration of measures that can support appropriate management of restored areas in perpetuity.



# 8800 Richmond Highway Planned Land Use



0

1,505

3,009 Feet

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.



## Legend

Parcels
Comprehensive Plan Base
Fairfax Center Area
.1-.2 DU/AC
.2-.5 DU/AC
.5-.1 DU/AC
1-.2 DU/AC
2-.3 DU/AC
3-.4 DU/AC
4-.5 DU/AC
5-.8 DU/AC
8-.12 DU/AC
12-.16 DU/AC
16-.20 DU/AC
20+ DU/AC
RPC
Office
Retail and Other
Industrial
Public Parks
Private Recreation
Private Open Space
Public Facilities
Mixed Uses

## Notes:

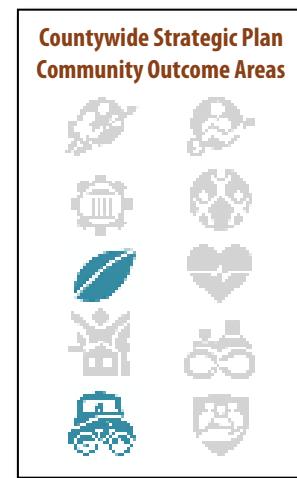
Map produced: 10/25/2023

## Mission

To develop and maintain a comprehensive watershed and infrastructure management program to protect property, health, and safety; to enhance the quality of life; and to preserve and improve the environment for the benefit of the public. To plan, design, construct, operate, inspect, and maintain stormwater infrastructure; perform environmental assessments through coordinated stormwater and maintenance programs in compliance with all government regulations utilizing innovative techniques, customer feedback and program review; and to be responsive and sensitive to the needs of the residents, customers, and public partners.

## Connection to the Countywide Strategic Plan

The Fairfax County Board of Supervisors adopted the first-ever Countywide Strategic Plan on October 5, 2021. The Countywide Strategic Plan serves as a road map to help guide future work, focusing on the 10 Community Outcome Areas that represent the issues of greatest importance to the community. In February of 2023, the first Annual Report on the work of the strategic plan was released to the public. The report contains point-in-time progress highlights for each of the proposed plan strategies, plus a sample data dashboard and data story that is being replicated across all of the outcome areas, and a number of additional initiatives to embed the elements of the plan within department-level work. The report also includes a Year Two Implementation Model, which focuses on identifying the specific strategies that will move forward to implementation under the guidance of the Board of Supervisors. For more information on the Countywide Strategic Plan, please visit [www.fairfaxcounty.gov/strategicplan](http://www.fairfaxcounty.gov/strategicplan). Fund 40100, Stormwater Services, primarily supports the following Community Outcome Areas:



Community Outcome Area	Vision Statement
Environment and Energy	<i>All people live in a healthy sustainable environment.</i>
Mobility and Transportation	<i>All residents, businesses, visitors and goods can move efficiently, affordably and safely throughout the county and beyond via our well-designed and maintained network of roads, sidewalks, trails and transit options.</i>

## Focus

Stormwater Services are essential to protect public safety, preserve property values, and support environmental mandates such as those aimed at protecting the Chesapeake Bay and the water quality of local jurisdictional waterways. Projects in this fund include repairs to stormwater infrastructure; measures to improve water quality such as stream stabilization, rehabilitation, safety upgrades of state regulated dams, repair and rehabilitation of underground pipe systems and surface channels, flood mitigation, site retrofits and best management practices (BMP); and other stormwater improvements.

## Fund 40100: Stormwater Services

The Board of Supervisors approved a special service district to support the Stormwater Management Program and provide a dedicated funding source for both operating and capital project requirements by levying a service rate per \$100 of assessed real estate value, as authorized by [Code of Virginia Ann. Sections 15.2-2400](#). Since this fund was established, staff has made significant progress in the implementation of watershed master plans, public outreach efforts, stormwater monitoring activities, water quality and flood mitigation project implementation, and operational maintenance programs related to existing storm drainage infrastructure including stormwater conveyance and regulatory requirements.

Staff continues to assess the appropriate service rate required to fully support the stormwater program in the future and address the growth in inventory and other community needs. Some of the additional community needs under evaluation include debt service to support the dredging of Lake Accotink, the anticipation of additional flood mitigation requirements, and strengthening the role and financial support for the implementation of stormwater requirements associated with Fairfax County Public Schools sites under renovation. This enhanced program may require incremental changes to the rate over time and may result in a higher rate to fully support the program. Staff continues to evaluate these requirements, as well as the staffing to support them, and analyze the impact of increased real estate values on revenue projections.

One of the recent initiatives being funded by the Stormwater Services Fund is the new Stormwater/Wastewater facility which will consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions. Stormwater operations are currently conducted from various locations throughout the County, and a new colocation of Stormwater and Wastewater staff will provide efficiencies and sharing of resources.

While staff continues to further evaluate the impact of recent initiatives and the long-term requirements for the Stormwater Program, the FY 2024 rate will remain the same as the [FY 2023 Adopted Budget Plan](#) level of \$0.0325 per \$100 of assessed value. However, based on capital project costs and projected revenues, it is anticipated that in the next several years, incremental rate increases will be required based on continued growth of stormwater facilities and infrastructure that must be inspected and maintained by the County, the implementation of flood mitigation projects, and additional requirements in the forthcoming Municipal Separate Storm Sewer System (MS4) Permit. On an annual basis, staff will continue to evaluate the program, analyze future requirements, and develop Stormwater operational and capital resource needs.

The FY 2024 levy of \$0.0325 will generate \$100,802,650, supporting \$29,460,043 for staff and operational costs; \$69,942,607 for capital project implementation including, infrastructure reinvestment, regulatory requirements, dam safety, emergency and flood response and contributory funding requirements; and \$1,400,000 transferred to the General Fund to partially offset central support services such as Human Resources, Purchasing, Budget and other administrative services supported by the General Fund, which benefit this fund.

### Stormwater Services Operational Support

Stormwater Services operational support includes funding for staff salaries, Fringe Benefits, and Operating Expenses for all stormwater operations. In addition, Fund 40100 includes positions related to transportation operations maintenance provided by the Maintenance and Stormwater Management Division. All funding for the transportation related salary expenses and equipment previously supported by Agency 87, Unclassified Administrative Expenses - Public Works Programs, are supported by capital projects in Fund 30010, General Construction and Contributions, as they do not qualify for expenses related to the stormwater service district. Funding for these programs

## Fund 40100: Stormwater Services

within Fund 30010, General Construction and Contributions, provides more transparency and the carryforward of balances at year-end.

Fund 40100 also supports the Urban Forestry Management Division (UFMD). The UFMD was established to mitigate tree loss and maximize tree planting during land development, enforce tree conservation requirements and monitor and suppress populations of Gypsy Moth, Emerald Ash Borer, and other forest pests. The UFMD also implements programs needed to sustain the rich level of environmental, ecological, and socio-economic benefits provided by the County's tree canopy. The UFMD is aligned with the mission of Stormwater Services as it strives to "improve water quality and stormwater management through tree conservation." Tree canopy and forest soils function to mitigate significant levels of water pollution and stormwater runoff. Thirteen merit positions and two temporary positions were transferred from the UFMD in Fund 40100, Stormwater Services, to Fund 40200, Land Development Services, in FY 2023 to better align resources and achieve efficiencies.

### FY 2024 Stormwater Capital Project Support

#### *Conveyance System Inspections, Development and Rehabilitation*

The County owns and operates approximately 1,614 miles of underground stormwater pipes and improved channels, with an estimated replacement value of over one billion dollars. County staff continues to perform internal inspections of all the stormwater pipes. The initial results show that approximately 5 percent of the pipes exhibit conditions of failure, and an additional 5 percent require



maintenance or repair. MS4 Permit regulations require inspection and maintenance of these 1,614 miles of existing conveyance systems, 68,000 stormwater structures, and a portion of the immediate downstream channel at the 7,000 regulated pipe outlets. Acceptable industry standards indicate that one dollar reinvested in infrastructure saves seven dollars over the asset's life and 70 dollars if asset failure occurs. The goal of this program is to inspect pipes on a 20-year cycle and rehabilitate pipes and improve outfall channels before total failure occurs. Total funding in the amount of \$10.0 million is included for Conveyance System Inspections, Development and Rehabilitation in FY 2024, including \$3.0 million for inspections and development and \$7.0 million for rehabilitation and outfall restoration.

#### *Dam Safety and Facility Rehabilitation*

There are approximately 8,200 stormwater management facilities in service that range in size from small rain gardens to large state-regulated flood control dams. The County is responsible for inspecting approximately 5,800 privately-owned facilities and maintaining over 2,400 County-owned facilities. This inventory increases annually and is projected to continually increase as new development and redevelopment occurs in the County. This initiative also includes the removal of sediment that occurs in both wet and dry stormwater management facilities to ensure that adequate capacity is maintained to treat the stormwater. The program results in approximately 50 projects annually that require design and construction management activities as well as contract

## Fund 40100: Stormwater Services

management and maintenance responsibilities. This program maintains the structures and dams that control and treat the water flowing through County-maintained facilities. This program improves dam safety by supporting annual inspections of 20 state-regulated dams and the Huntington Levee and by developing Emergency Action Plans required by the state. The Emergency Action Plans are



updated annually. In addition, these plans include annual emergency drills and exercises, and flood monitoring for each dam. Total funding in the amount of \$17.0 million is included in FY 2024, including \$6.0 million for maintenance and \$11.0 million for rehabilitation.

### *Stormwater/Wastewater Facility*

This project will provide funding for a Stormwater/Wastewater Facility which will consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions. Currently, Stormwater operations are conducted from various locations throughout the County, with the majority of staff located at the West Drive facility. Facilities for field maintenance operations and for field/offices-based staff are inadequate and outdated for the increased scope of the stormwater program, and inadequate to accommodate future operations. This project is currently in construction and is scheduled to be completed in late 2025. The facility is financed by EDA bonds with the Stormwater Services Fund and Wastewater Fund supporting the debt service. Funding in the amount of \$4.2 million is included in FY 2024 to support the debt service for the Stormwater/Wastewater Facility.

### *Emergency and Flood Response Projects*

This program supports flood control projects for unanticipated flooding events that impact storm systems and structural flooding. The program provides annual funding for scoping, design, and construction activities related to flood mitigation projects. Funding in the amount of \$7.0 million is included for the Emergency and Flood Response Projects in FY 2024.

### *Enterprise Asset Management-Work Order System*

This project will provide funding for the transition from an Enterprise Asset Management (EAM) system to a more functional Asset Management Program (AMP). This funding will support the acquisition of software, servers, and consultant services to migrate asset management and related work order management into the new system. The current system tracks assets, inspections, daily work management, and associated contractor costs. Features of the replacement system include geographic information system (GIS) integration and field mobility. The Department of Public Works and Environmental Services (DPWES) Information Technology staff have collaborated with the Stormwater Management and the Wastewater Management staff to promote interagency capabilities, optimize performance, and improve system lifecycle management for the new system. This new system will meet future expectations for both divisions and optimize service delivery for DPWES. Funding in the amount of \$0.64 million is included in Capital Projects and an amount of \$0.66 million is included in Operating Expenses for this project in FY 2024.

## Fund 40100: Stormwater Services

### *Stormwater-Related Contributory Program*

Contributory funds are provided to the Northern Virginia Soil and Water Conservation District (NVSWCD) and the Occoquan Watershed Monitoring Program (OWMP). The NVSWCD is an independent subdivision of the Commonwealth of Virginia that provides leadership in the conservation and protection of Fairfax County's soil and water resources. It is governed by a five-member Board of Directors - three members are elected every four years by the voters of Fairfax County and two members are appointed by the Virginia Soil and Water Conservation Board. Accordingly, the work of NVSWCD supports many of the environmental goals established by the Board of Supervisors. The goal of the NVSWCD is to continue to improve the quality of the environment and general welfare of the citizens of Fairfax County by providing them with a means of dealing with soil, water conservation, and related natural resource problems. It provides County agencies with comprehensive environmental evaluations for proposed land use changes with particular attention to the properties of soils, erosion potential, drainage, and the impact on the surrounding environment. NVSWCD has consistently been able to create partnerships and leverage state, federal and private resources to benefit natural resources protection in Fairfax County. FY 2024 funding of \$0.6 million is included in Fund 40100 for the County contribution to the NVSWCD.

The OWMP and the Occoquan Watershed Monitoring Laboratory (OWML) were established to ensure that water quality is monitored and protected in the Occoquan Watershed. Given the many diverse uses of the land and water resources in the Occoquan Watershed (agriculture, urban residential development, commercial and industrial activity, water supply, and wastewater disposal), the OWMP plays a critical role as the unbiased interpreter of basin water quality information. FY 2024 funding of \$0.2 million is included in Fund 40100 for the County contribution to the OWMP.

Contributory funding also supports additional projects selected through the successful NVSWCD-administered Conservation Assistance Program (CAP) and Virginia Conservation Assistance Program (VCAP) as approved by the Board of Supervisors on September 4, 2021. CAP and VCAP provide cost share and technical assistance for the voluntary installation of environmental best management practices (BMP). The programs align with the County's watershed management plans that suggest establishing a cost share program with property owners on BMP projects located on private land. The BMPs installed under CAP and VCAP help address private drainage and erosion issues, improve water quality, and support long-term stewardship of the County watersheds by building awareness of the importance of watershed protection. FY 2024 funding of \$0.25 million is included in Fund 40100 for the first year of this contribution to NVSWCD.

### *Stormwater Allocation to Towns*

On April 18, 2012, the State Legislature passed SB 227, which entitles the Towns of Herndon and Vienna to all revenues collected within their boundaries by Fairfax County's stormwater service district. An agreement was developed whereby the Towns remain part of the County's service district and the County returns 25 percent of the revenue collected from properties within each town. This allows for the Towns to provide services independently, such as maintenance and operation of stormwater pipes, manholes, and catch basins. The remaining 75 percent remains with the County and the County takes on the responsibility for the Towns' Chesapeake Bay Total Maximum Daily Load (TMDL) requirements as well as other TMDL and MS4 requirements. This provides for an approach that is based on watersheds rather than on jurisdictional lines. Funding in the amount of \$1.25 million is included for the Stormwater Allocations to Towns project in FY 2024.

### *Regulatory Program*

The County is required by federal law to operate under the conditions of a state-issued MS4 Permit. Stormwater staff annually evaluates funding required to meet the increasing federal and state

regulatory requirements pertaining to the MS4 Permit, and state and federal mandates associated with controlling water pollution delivered to local streams and the Chesapeake Bay. The MS4 Permit allows the County to discharge stormwater from its stormwater systems into state and federal waters. There are approximately 15,000 stormwater outfalls in the County and 7,000 are regulated outfalls covered by the permit. The most recent permit was issued to the County in April 2015 and expired in April 2020. The County is operating under an Administrative Continuance until a new permit is issued. The permit requires the County to document the stormwater management facility inventory, enhance public outreach and education efforts, increase water quality monitoring efforts, and provide stormwater management and stormwater control training to all appropriate County employees. The permit requires the County to implement sufficient stormwater projects that will reduce the nutrients and sediment to comply with the Chesapeake Bay and local stream TMDL requirements. Funding in the amount of \$4.0 million is included for the Stormwater Regulatory Program in FY 2024.

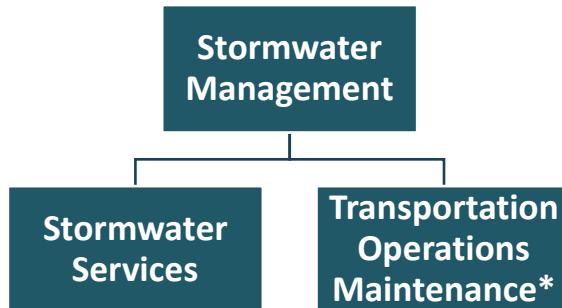
### *Stream and Water Quality Improvements*

This program funds water quality improvement projects necessary to mitigate the impacts to local streams and the Chesapeake Bay resulting from urban stormwater runoff. This includes water quality projects such as construction and retrofit of stormwater management ponds, implementation of green stormwater infrastructure facilities, stream restoration, and water quality projects identified in the



completed Countywide Watershed Management Plans. These projects will aid in the reduction of pollutants and improve water quality in County streams that are considered to be in fair to very poor condition and likely do not meet Federal Clean Water Act water quality standards. In addition, TMDL requirements for local streams and the Chesapeake Bay are the regulatory drivers by which pollutants entering impaired water bodies must be reduced. The Chesapeake Bay TMDL was established by the EPA and requires that MS4 communities, as well as other dischargers, implement measures to significantly reduce the nitrogen, phosphorous, and sediment loads in waters that drain to the Chesapeake Bay by 2025. MS4 Permit holders must achieve 35 percent of the required reductions within the current five-year permit cycle and 60 percent of the required reductions in the next five-year permit cycle. In addition, compliance with the Chesapeake Bay TMDL requires that the County undertake construction of new stormwater facilities and retrofit existing facilities and properties. The EPA continually updates the Chesapeake Bay compliance targets and credits. It is anticipated that the changes to the assigned targets as well as how projects are credited will likely impact future compliance requirements. In addition to being required to meet the Chesapeake Bay TMDL targets, the current MS4 Permit requires the County to develop and implement action plans to address local impairments. Most of the 1,900 watershed management plan projects contribute toward achieving the Chesapeake Bay and local stream TMDL requirements. Funding in the amount of \$24.8 million is included for Stream and Water Quality Improvements in FY 2024.

### Organizational Chart



\*Denotes functions that are included in both Fund 30010, General Construction and Contributions, and Fund 40100, Stormwater Services.

### Budget and Staff Resources

Category	FY 2022 Actual	FY 2023 Adopted	FY 2023 Revised	FY 2024 Advertised	FY 2024 Adopted
<b>FUNDING</b>					
<b>Expenditures:</b>					
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550	\$26,824,362
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636	3,870,636
Capital Equipment	1,519,045	652,000	1,019,268	895,000	895,000
Capital Projects	56,797,439	65,879,740	257,786,068	70,747,419	69,942,607
<b>Subtotal</b>	<b>\$83,313,972</b>	<b>\$95,123,010</b>	<b>\$287,772,206</b>	<b>\$101,532,605</b>	<b>\$101,532,605</b>
Less:					
Recovered Costs	(\$1,547,199)	(\$2,129,955)	(\$2,129,955)	(\$2,129,955)	(\$2,129,955)
<b>Total Expenditures</b>	<b>\$81,766,773</b>	<b>\$92,993,055</b>	<b>\$285,642,251</b>	<b>\$99,402,650</b>	<b>\$99,402,650</b>
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>					
Regular	200 / 200	208 / 208	194 / 194	208 / 208	194 / 194

### FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 program. Included are all adjustments recommended by the County Executive that were approved by the Board of Supervisors, as well as any additional Board of Supervisors' actions, as approved in the adoption of the Budget on May 9, 2023.

#### Employee Compensation \$2,275,938

An increase of \$2,275,938 in Personnel Services includes \$1,272,723 for a 5.44 percent market rate adjustment (MRA) for all employees and \$405,184 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2023. The remaining increase of \$598,031 is included to support employee retention and recruitment efforts that will reduce pay compression and align the County's pay structures with the market based on benchmark data.

#### Other Post-Employment Benefits (\$32,210)

A decrease of \$32,210 in Personnel Services reflects required adjustments associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. For more information on Other Post-Employment Benefits, please refer to Fund 73030, OPEB Trust, in Volume 2 of the FY 2024 Adopted Budget Plan.

## Fund 40100: Stormwater Services

<b>Asset Management Program</b>	(\$140,000)
Funding of \$660,000 in Operating Expenses, a decrease of \$140,000 from the <u>FY 2023 Adopted Budget Plan</u> , will support a new Asset Management Program (AMP). Funding will support the acquisition of software, servers, and consultant services to migrate asset management and related work order management into the new system. This new system will meet the future expectations for both Stormwater and Wastewater divisions and optimize service delivery for the Department of Public Works and Environmental Services.	
<b>Capital Equipment</b>	<b>\$243,000</b>
Funding of \$895,000 in Capital Equipment, an increase of \$243,000 over the <u>FY 2023 Adopted Budget Plan</u> , is included for new equipment and replacement equipment that has outlived its useful life. Replacement equipment in the amount of \$195,000 includes: \$175,000 to replace two equipment trailers and one forklift that support all maintenance and emergency response programs in transporting construction materials, light duty and snow removal equipment; and \$20,000 to replace two backpack electrofishers that are used to support the Countywide comprehensive biological monitoring program to assess the ecological health of watersheds and to satisfy regulatory requirements of the Municipal Separate Storm Sewer System (MS4) permit issued by the state (and mandated by the Clean Water Act). In addition, new equipment in the amount of \$700,000 includes: \$350,000 to retrofit older trucks with new spreader controllers and a GPS enabled system to optimize the County's winter weather operations; \$250,000 to purchase a heavy equipment simulator package that is capable of training operators on backhoes, wheel loaders, excavators, skid steers, and bulldozers; and \$100,000 to purchase a web-based GPS location system for the County's assets in order to instantly locate and check the status of all machinery, equipment, and tools.	
<b>Capital Projects</b>	<b>\$4,062,867</b>
Funding of \$69,942,607 in Capital Projects, an increase of \$4,062,867 over the <u>FY 2023 Adopted Budget Plan</u> , has been included in FY 2024 for priority stormwater capital projects.	

## Changes to FY 2023 Adopted Budget Plan

*The following funding adjustments reflect all approved changes in the FY 2023 Revised Budget Plan since passage of the FY 2023 Adopted Budget Plan. Included are all adjustments made as part of the FY 2022 Carryover Review, FY 2023 Third Quarter Review, and all other approved changes through April 30, 2023.*

<b>Carryover Adjustments</b>	<b>\$192,712,809</b>
As part of the <u>FY 2022 Carryover Review</u> , the Board of Supervisors approved funding of \$192,712,809 based on the carryover of unexpended project balances in the amount of \$190,278,892 and a net adjustment of \$2,433,917. This adjustment included the carryover of \$742,868 in operating and capital equipment encumbrances and an increase to capital projects of \$1,691,049. The adjustment to capital projects was based on the appropriation of higher than anticipated Stormwater tax revenues of \$841,515; actual Economic Development Authority (EDA) Bonds of \$376,033 and interest earnings of \$154,900 associated with the Stormwater/Wastewater Facility; operational savings of \$247,858; revenues of \$195,570 received in FY 2022 as a reimbursement from the Metropolitan Washington Council of Governments; revenues of \$30,583 collected for tree preservation and planting projects in FY 2022; revenues received in FY 2022 from the sale of capital equipment in the amount of \$24,340; and the appropriation of \$1,796, which was the result of a reconciliation of fund balances to the County's financial statements. The adjustment to capital projects was partially offset by a decrease of \$181,546 due to the transfer of Civil Penalties Fees to Fund 40200, Land Development Services.	

## Position Adjustments

\$0

In order to better support the Department of Public Works and Environmental Services' (DPWES) four core business areas and enhance department-wide initiatives, 1/1.0 FTE position was transferred from Fund 40100, Stormwater Services, to Agency 25, Business Planning and Support, in FY 2023 to serve as a Sustainability Officer and provide enterprise-level coordination and high-level policy related to the County's sustainability efforts. The funding related to this position will be provided as part of the *FY 2023 Carryover Review*. In addition, 13/13.0 FTE positions were transferred from Fund 40100, Stormwater Services, to Fund 40200, Land Development Services, in FY 2023 to better align resources and achieve efficiencies.

## Position Detail

The FY 2024 Adopted Budget Plan includes the following positions:

STORMWATER SERVICES – 194 Positions			
<b>MSMD Administration (10 positions)</b>			
1	Director, Maintenance and SW	1	Safety Analyst I
1	HR Generalist II	1	Administrative Assistant IV
1	HR Generalist I	4	Administrative Assistants III
1	Safety Analyst II		
<b>IT – Director's Office/Stormwater (1 position)</b>			
1	Network/Telecom. Analyst I		
<b>Finance – Wastewater and Stormwater (4 positions)</b>			
1	Financial Specialist IV	1	Financial Specialist I
1	Financial Specialist II	1	Administrative Assistant III
<b>Contracting Services/Material Support (5 positions)</b>			
1	Material Mgmt. Specialist III	1	Financial Specialist II
2	Contract Analysts I	1	Inventory Manager
<b>Dam Safety and Maintenance Projects/Projects and LID/Inspection and Maintenance (18 positions)</b>			
1	Public Works-Env. Serv. Manager	5	Engineering Technicians III
1	Engineer IV	2	Engineering Technicians II
1	Senior Engineer III	1	Project Manager II
2	Engineers III	2	Project Managers I
1	Ecologist III	1	Assistant Project Manager
1	Ecologist II		
<b>Field Operations (74 positions)</b>			
2	Env. Services Supervisors	3	Masons
1	Public Works-Env. Serv. Manager	1	Vehicle Maintenance Coordinator
3	Public Works-Env. Bus. Ops. Managers	5	Engineering Technicians III
2	Public Works-Env. Serv. Specialists	2	Engineering Technicians II
8	Senior Maintenance Supervisors	1	Carpenter II
5	Maintenance Supervisors	2	Equipment Repairers
2	Maintenance Crew Chiefs	1	Welder II
15	Senior Maintenance Workers	1	Welder I
10	Heavy Equipment Operators	1	Trades Supervisor
9	Motor Equipment Operators		
<b>Stormwater Infrastructure Branch (16 positions)</b>			
1	Public Works-Env. Serv. Manager	1	Senior Engineering Inspector
4	Engineers IV	2	Engineering Technicians II
1	Senior Engineer III	2	Engineering Technicians I
4	Engineers III	1	Project Manager I
<b>Transportation Infrastructure Branch (7 positions)</b>			
1	Engineer V	3	Project Managers I
1	Engineer IV	1	Engineering Technician II
1	Project Manager II		

Stormwater Planning Division (56 positions)	
1	Director, Stormwater Planning
1	Engineer V
4	Engineers IV
1	Senior Engineer III
9	Engineers III
4	Project Managers II
2	Project Managers I
4	Ecologists IV
5	Ecologists III
3	Ecologists II
2	Ecologists I
3	Project Coordinators
1	Public Works-Env. Serv. Manager
Urban Forestry (3 positions)	
1	Director, Urban Forestry Division
1	Urban Forester III
1	Project Manager I

## Performance Measurement Results by Community Outcome Area

### Environment and Energy

The objective to receive no MS4 Permit violations related to inspection and maintenance of public and private stormwater management facilities was met in FY 2020, FY 2021 and FY 2022. It is expected that this objective will also be met in FY 2023 and FY 2024. The objective to update 100 percent of the Stormwater emergency action plans was also met in prior years. It is expected that this trend will continue in both FY 2023 and FY 2024.

### Mobility and Transportation

The objective to keep 100 percent of the commuter facilities operational for 365 days was met in prior years. It is expected that this goal will be met in FY 2023 and FY 2024.

Community Outcome Area	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Environment and Energy</b>						
<b>Promoting Air, Water and Land Quality</b>						
MS4 permit violations received	0	0	0	0	0	0
Percent of Emergency Action Plans current	100%	100%	100%	100%	100%	100%
<b>Mobility and Transportation</b>						
<b>Infrastructure Condition, Sustainability and Environmental Impact</b>						
Percent of commuter facilities available 365 days per year	100%	100%	100%	100%	100%	100%

A complete list of performance measures can be viewed at  
<https://www.fairfaxcounty.gov/budget/fy-2024-adopted-performance-measures-pm>

# Fund 40100: Stormwater Services

## FUND STATEMENT

Category	FY 2022 Actual	FY 2023 Adopted Budget Plan	FY 2023 Revised Budget Plan	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
<b>Beginning Balance</b>	<b>\$90,246,043</b>	<b>\$0</b>	<b>\$192,147,379</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue:</b>					
Stormwater Service District Levy	\$88,017,253	\$94,393,055	\$94,393,055	\$100,802,650	\$100,802,650
Sale of Bonds <sup>1</sup>	93,376,033	0	0	0	0
Interest on Investments <sup>2</sup>	154,900	0	0	0	0
Stormwater Local Assistance Fund (SLAF) Grant <sup>3</sup>	2,967,180	0	629,613	0	0
Tree Preservation/Planting Fund <sup>4</sup>	30,583	0	0	0	0
Miscellaneous <sup>5</sup>	247,160	0	81,000	0	0
<b>Total Revenue</b>	<b>\$184,793,109</b>	<b>\$94,393,055</b>	<b>\$95,103,668</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Total Available</b>	<b>\$275,039,152</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Expenditures:</b>					
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550	\$26,824,362
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636	3,870,636
Recovered Costs	(1,547,199)	(2,129,955)	(2,129,955)	(2,129,955)	(2,129,955)
Capital Equipment	1,519,045	652,000	1,019,268	895,000	895,000
Capital Projects <sup>6</sup>	56,797,439	65,879,740	257,786,068	70,747,419	69,942,607
<b>Total Expenditures</b>	<b>\$81,766,773</b>	<b>\$92,993,055</b>	<b>\$285,642,251</b>	<b>\$99,402,650</b>	<b>\$99,402,650</b>
<b>Transfers Out:</b>					
General Fund (10001) <sup>7</sup>	\$1,125,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
Land Development Services (40200) <sup>8</sup>	0	0	208,796	0	0
<b>Total Transfers Out</b>	<b>\$1,125,000</b>	<b>\$1,400,000</b>	<b>\$1,608,796</b>	<b>\$1,400,000</b>	<b>\$1,400,000</b>
<b>Total Disbursements</b>	<b>\$82,891,773</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Ending Balance<sup>9</sup></b>	<b>\$192,147,379</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Tax Rate Per \$100 of Assessed Value</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>

<sup>1</sup> In FY 2022, an amount of \$93.4 million in Economic Development Authority (EDA) Bonds was issued to support the construction of the Stormwater/Wastewater Facility to consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions.

<sup>2</sup> Interest on Investments revenue represents interest earned associated with the Stormwater/Wastewater Facility project.

<sup>3</sup> Represents previously approved Virginia Department of Environmental Quality (VDEQ) Stormwater Local Assistance Fund (SLAF) grants to support stream and water quality improvement projects. An amount of \$2,967,180 was received in FY 2022 and an amount of \$629,613 is anticipated in FY 2023 and beyond.

<sup>4</sup> Reflects revenues collected through the land development process that will support tree preservation and planting projects in FY 2023.

<sup>5</sup> Miscellaneous revenues in FY 2022 represent an amount of \$195,570 received as a reimbursement from the Metropolitan Washington Council of Governments for emergency flood response projects, an amount of \$27,250 collected in civil penalties, and an amount of \$24,340 received from the sale of capital equipment. In addition, an amount of \$81,000 is carried forward to FY 2023 to support the Paul Springs Stream Restoration project at Hollin Hills. The existing pipes will be replaced, and the Virginia Department of Transportation (VDOT) has agreed to reimburse Fairfax County for expenses up to \$81,000.

<sup>6</sup> In order to account for revenues and expenditures in the proper fiscal year, audit adjustments were reflected as an increase of \$63,612.94 to FY 2022 Capital Projects to record expenditure accruals. This impacted the amount carried forward resulting in a decrease of \$63,612.94 to the FY 2023 Revised

## Fund 40100: Stormwater Services

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*Budget Plan.* The projects affected by this adjustment were 2G25-006-000, Stormwater Regulatory Program, and SD-000031, Stream and Water Quality Improvements. The Annual Comprehensive Financial Report (ACFR) reflects all audit adjustments in FY 2022. Details of the audit adjustments were included in the FY 2023 Third Quarter Package.

<sup>7</sup> Funding in the amount of \$1,400,000 is transferred to the General Fund to partially offset central support services supported by the General Fund, which benefit Fund 40100. These indirect costs include support services such as Human Resources, Purchasing, Budget and other administrative services.

<sup>8</sup> Funding in the amount of \$208,796 was transferred to Fund 40200, Land Development Services, to reflect all revenues and expenditures associated with civil penalty activities in the new Special Revenue fund.

<sup>9</sup> Capital projects are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

## Fund 40100: Stormwater Services

### SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000	6,000,000
Dam Safety and Facility Rehabilitation (SD-000033)	68,576,104	5,039,029.28	12,188,745.52	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,546.30	82,119,862.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 1, 2023

Ms. Wendy Howard Cooper  
Director, Dam Safety and Floodplain Management  
Department of Conservation and Recreation  
East Main Street, 24<sup>th</sup> Floor  
Richmond, Virginia 23219

Reference: Community Flood Preparedness Fund, CY 2023 Round 4 Grant Applications

Dear Ms. Howard Cooper:

This is a response to the Department of Conservation and Recreation's (DCR) recent announcement of the Virginia Community Flood Preparedness Fund (CFPF) grant.

We are providing CFPF applications that contain information and request funding assistance for the following four flood prevention and protection projects.

1. Broad Branch Court Stormwater Improvement Project
2. Little Pimmit Run Tributary at Woodland Terrace
3. Richmond Highway Voluntary Land Acquisition
4. Woodglen Lake Toe Drain Repair

If one or more of these grants are awarded, Fairfax County (County) will provide the necessary match for each selected project as required by your department, subject to Fairfax County Board of Supervisors approval. It is understood that the County's total match amount for all four County applications being considered during the supplemental review may be as much as \$7,926,300.

If you have any questions or need additional assistance, please contact Joni Calmbacher, Division Director, Department of Public Works and Environmental Service, Stormwater Planning Division at 703-324-5500.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bryan J. Hill".  
Bryan J. Hill  
County Executive

Attachment: Community Flood Preparedness Fund (CFPF): Applications

Bryan J. Hill

Department of Conservation and Recreation, Virginia Community Flood Preparedness Fund

Page 2 of 2

cc:    Rachel Flynn, Deputy County Executive  
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)  
Eleanor Ku Coddng, Deputy Director, DPWES, Stormwater and Wastewater Divisions  
Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division

<b>Goal AE.1</b>	Protection: Protect Natural Resources That Enhance Resilience
<b>STRATEGY AE.1b</b>	Survey and Protect Areas that Provide Natural Resilience Benefits

**Strategy Description:** Healthy natural lands and environmentally sensitive areas are critical to the long-term resilience of Fairfax County. These areas, such as wetlands, critical habitats, biodiverse land, natural shorelines, and healthy stream corridors, can reduce our climate vulnerabilities and enhance resilience in several ways. They can serve as natural barriers against severe storms, absorb excess flood waters and storm surge energy, protect downstream communities, reduce erosion, mitigate against extreme heat, and support the biodiversity of ecosystems threatened by climate change, among other benefits. These areas and natural resources provide many additional co-benefits, such as water quality protection and protection of areas with historical, archaeological, or recreational significance. This strategy involves the surveying, mapping, prioritization, and conservation of natural areas that currently lack sufficient protection.

#### Climate Hazards Addressed:



<b>Lead:</b>	FCPA, NVSWCD	
<b>Partners:</b>	DPD, DPWES, FCDOT, OCA, OEEC, UFMD	
<b>Timeline:</b>	Long-Term (5-8 years)	
<b>Cost:</b>	\$\$\$ (\$500k - \$1 million)	
<b>Existing Staff:</b>	Partial	

#### Implementation Actions:

i.	Identify and secure additional staff capacity and/or consultant support needed to implement this strategy.
ii.	Leverage the Consolidated Natural Resources Management Plan (Strategy AE1.a) and other applicable plans as a starting point for identification of environmentally sensitive areas that could be candidates for more stringent protection. To thoroughly analyze these candidate areas, complete field surveys of public land to verify and document lands that naturally enhance climate resilience, contain sensitive and/or rare habitats, and areas with extensive invasive species in need of management. Consider leveraging existing GIS data, such as tree canopy cover and land use type, to inform field survey work. Partner with state and federal agencies, as applicable, to coordinate survey work and data collection. Build off of existing and ongoing surveys and documentation from FCPA and NVRC.
iii.	Informed by data collection under this strategy as well as available county data, create an updated GIS database of natural areas in need of stronger protections for climate resilience, including lands with sensitive and/or rare habitat and species and high-quality natural resources areas.
iv.	Based upon the field surveys, GIS database, and <a href="#">Resilient Fairfax Vulnerability and Risk Assessment</a> , identify land prioritized for conservation easements, Natural Area Preserve designation, or other protective status to enhance or preserve natural climate resilience.
v.	Explore strategic partnerships, grant opportunities and/or financing opportunities for conservation and protection of identified environmentally sensitive areas, including but not limited to: tidal and freshwater wetlands, intermittent streams, shorelines, and habitat for key species. Partners in this effort may include, but are not limited to: Department of Defense, National Park Service, Northern Virginia Regional Parks, Northern Virginia Conservation Trust, and Virginia Department of Conservation and Recreation.

**Key Performance Indicators:**

- Total amount of land area surveyed, and number of field surveys completed.
- Amount secured in grant and/or other funding sources for conservation.
- Percent of eligible acres of environmentally sensitive land conserved and/or protected within the county.

**Equitable Implementation:**

- ✓ Consider how the protection of environmentally sensitive areas could affect development and/or change land values.
- ✓ Consider whether the benefits of protecting environmentally sensitive areas will be distributed equitably.
- ✓ Along with protecting environmentally sensitive areas, include aspects of environmental restoration in low-income neighborhoods so the benefits that come from these ecosystems are equitably distributed.

**Funding and Resource Opportunities:**

- BRIC
- Coastal and Estuarine Land Conservation Program
- Conservation Reserve Enhancement Program
- Emergency Coastal Resilience Fund
- Land and Water Conservation Fund
- National Coastal Resilience Fund
- National Coastal Wetlands Conservation Grant Program
- Virginia Environmental Endowment
- Wildlife Conservation Society Climate Adaptation Fund
- Virginia Land Conservation Fund
- Virginia Open Space Lands Preservation Trust Fund
- Virginia Recreational Trails Fund

**Co-Benefits:**

## ADDITIONAL STRATEGIES FOR GOAL AE.1

**Strategy  
AE.1c****Update Provisions for Conservation Easements**

Update the provisions for conservation easements to include potential canopy credit as well as resources needed to maintain or improve the condition of the resource in perpetuity.

**Strategy  
AE.1d****Integrate Climate Change Considerations into Urban Forestry Program**

Consider future climate conditions to support long term tree health, including consideration for tree selection, required maintenance, and planting processes.

**Dyke Marsh Wildlife Preserve Restoration**

Dyke Marsh is the Washington metropolitan region's largest freshwater wetland and one of the best studied wetlands in the nation. Located in Fairfax County, the marsh is home to 300 different plant species including six species of concern. The marsh began growing 2,500 years ago. During the 20th century, over 100 acres of the marsh was dredged away for mining of sand and gravel. Erosion and sea level rise pose additional threats. The USACE and NPS have been working on Dyke Marsh stabilization. Phase I is complete, and Phase II was scheduled to start summer 2022. Restoration and stabilization of marshes like Dyke Marsh not only provide critical habitat for a variety of wildlife, but also provide storm buffers, helping to reduce wave energy and prevent erosion. Additionally, our marshes act as natural filters to clean the waters of the Potomac River.

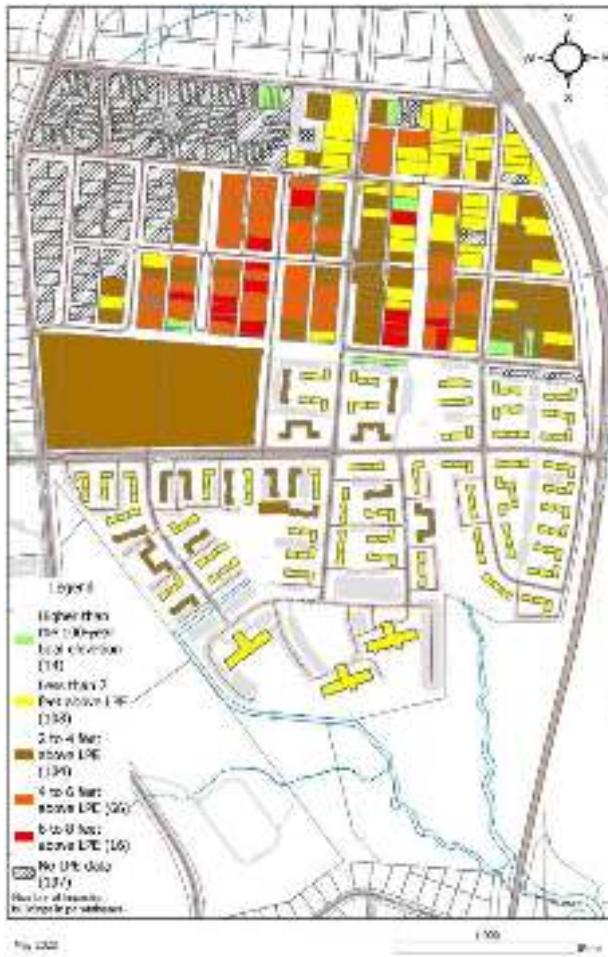


County of Fairfax, Virginia

## **FLOODPLAIN MANAGEMENT PLAN**

(Part of the Northern Virginia Regional Hazard Mitigation Plan)

### **PROGRESS REPORT**



*Depth of flooding above building Lowest Point of Entry (LPE) for  
100-year tidal elevation at Belle Haven*

**STORMWATER PLANNING DIVISION**  
**DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES**  
A Fairfax County, VA Publication, July 2023

the FIRM and FIS in 2024. The County is required to adopt the maps within six months of receiving the LFD.

**XI. Fairfax County Mitigation Action 21 (2010):**

**Develop an outreach program aimed at assisting private dam owners with proper operation and maintenance**

SWPD will identify specific outreach techniques for the private dam owners when resources become available.

**XII. Fairfax County Mitigation Action 23 (2010):**

**Identify gaps in current recovery planning efforts within the County**

In 2012, the County published the Pre-Disaster Recovery Plan, which was scheduled to be revised in 2017. During the review process, gaps were identified and readdressed. Pre-Disaster Recovery plan was updated in 2020. The new 2020 plan was adopted/signed by the County Executive in April 2020. DEMS is planning on starting a review and revision process in the fall/winter timeframe in 2023.

**XIII. Fairfax County Mitigation Action 26 (2010):**

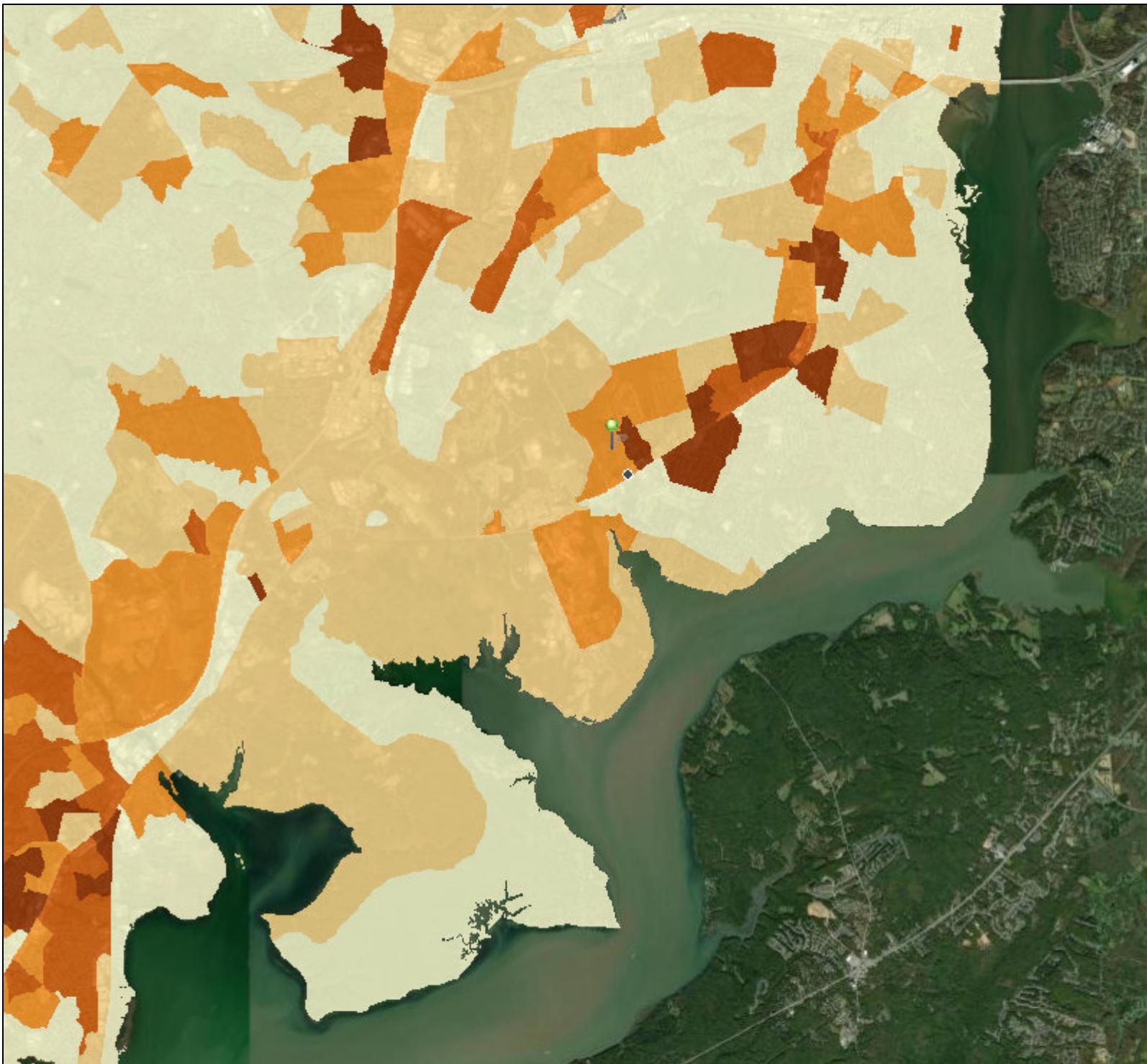
**Use fee simple and/or permanent easement to prevent development in the highest priority undeveloped floodplain (and/or wetlands) areas. Work with land trusts to purchase the land or conservation easements. Use these areas as public open space for passive recreational uses**

FCPA continues to acquire land in undeveloped floodplain areas via fee simple acquisitions, developer dedications, donations, and easements. In FY 2023, 13.6 acres of resource protected land was acquired in fee simple to provide continuous natural habitat in the Accotink Stream Valley Park in Providence District.

**XIV. Fairfax County Mitigation Action 27 (2010):**

**Continue development of a comprehensive River Flood Response System for New Alexandria/Belle View and Huntington in partnership with the National Weather Service (NWS) and the U.S. Army Corps of Engineers**

MSMD continues to coordinate with NWS on updates to the County's flood warning system. SWPD is also continuing to work with the U.S. Army Corps of Engineers to develop rainfall/tide triggers for the community protected by the tide gate at New Alexandria/Belle View.

**Legend**

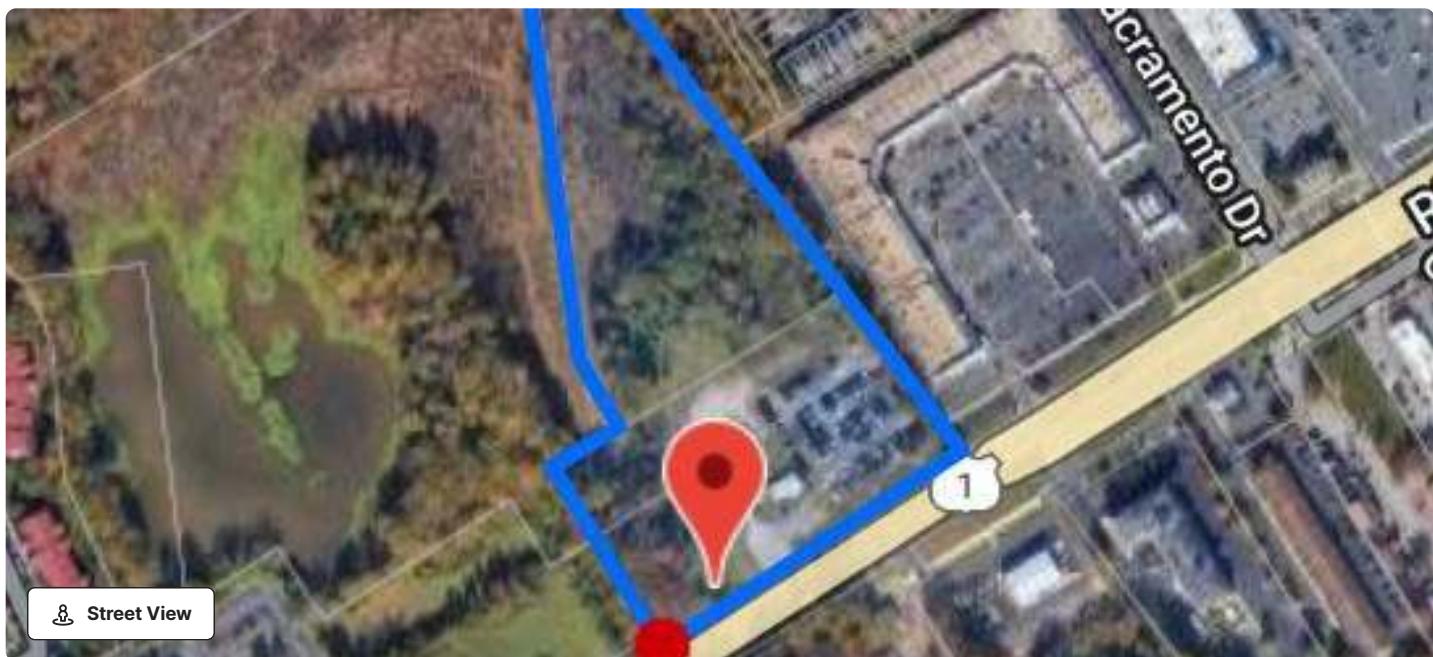
Virginia Social Vulnerability Block Groups 2020	Low Social Vulnerability	Very High Social Vulnerability
	Moderate Social Vulnerability	
	High Social Vulnerability	
	Very Low Social Vulnerability	

Disclaimer: The Virginia Flood Risk Information System (VFRIS) includes information from the National Flood Hazard Layer, National Flood Insurance Program, and Digital Flood Insurance Rate Maps provided by the Federal Emergency Management Agency, as well as data from the National Fish and Wildlife Service, U.S. Geological Survey, and Esri. These data are provided on an 'as is' basis. The Virginia Department of Conservation & Recreation (DCR), Virginia Institute of Marine Science (VIMS), nor other contributors of said data shall not be held liable for any use or application of the data provided whatsoever, whether or not that use is improper or incorrect, and assume no responsibility for the use or application of the data or information derived from interpretation of the data.

1:144,447.64  
0 0.5 1 2 mi



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FOR SALE - ACTIVE

8800 Richmond Hwy, Alexandria, VA 22309

**\$4,000,000**

Est. \$25,988/mo [Get pre-approved](#)

Beds

Baths

**2.55**

Acres (Lot)



Tour with a Redfin Premier agent

OCT  
**25**  
WEDNESDAY

OCT  
**26**  
THURSDAY

OCT  
**27**  
FRIDAY



[TOUR IN PERSON](#)

[TOUR VIA VIDEO CHAT](#)

**Schedule tour**

Next Available: Today at 3:00 PM

Redfin agents led **27 tours** in 22309 in the last 30 days

[Ask a question](#)

(703) 635-3874

### Alexandria is a hot market

33% of homes accept an offer within 2 weeks. Tour it before it's gone!

Today: **3:00 pm • 4:00 pm • 5:00 pm • 6:00 pm • 7:00 pm • More times**

### About this home

Three lots in total (1092010020, 1092010019, 1092010018C) consisting of 8.17 total acres. Amazing opportunity to build off Route 1 in Alexandria. Not all parcels are buildable. Please call LA with questions.

23 days on Redfin

\$36 per sq ft land

Vacant land

2% buyer's agent fee

2.55 acres

Listed by Dimitri Apostolopoulos • Keller Williams Capital Properties • **703-964-1290** (broker)

Redfin checked: **5 minutes ago** (Oct 25, 2023 at 12:25pm) • Source: BRIGHT MLS #VAFX2150016



— min • [Add a commute](#)

### Connect with a Redfin Premier agent

**Diane Freeman**

**241**  
Deals

**\$137M**  
Volume

**\$2.0M**  
Highest Deal



Write a message...

Get in touch

Text or call **(703) 635-3874**

Advertisement

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## Payment calculator

**\$25,497 per month** ⓘ   [Reset](#)

[Get pre-approved](#)

● Principal and interest	\$23,594
● Property taxes	\$836
● Homeowners' insurance	\$1,067

Down payment

20% (\$800,000) 

Home price

\$4,000,000 

Loan details

30-yr fixed jumbo, 8.05% 

...

**Down payment** ×

Cash ⓘ

\$800,000	20%
-----------	-----



Have a home to sell?

[Add my home equity](#)

Cash	\$800,000
Home Equity	\$0

Total Down: **\$800,000 (20%)**

[Additional resources](#)

## Additional resources

### \$ Down payment assistance

View down payment assistance programs for this home.



### ⚡ Electricity and solar

Working on getting current and accurate energy info for this home

### 📡 Internet

View Internet plans and providers available for this home



Provided by Down Payment Resource, Wattbuy, and AllConnect [i](#)

## Additional services

### Find a VA Loan

[0% Down VA Home Loans: Get Quote](#)

Advertisement



### Home Insurance

[Compare Homeowner Insurance Quote](#)

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## Open houses

No upcoming open houses

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Today: [3:00 pm](#) • [4:00 pm](#) • [5:00 pm](#) • [6:00 pm](#) • [7:00 pm](#) • [More times](#)

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## Property details for 8800 Richmond Hwy

### Exterior

#### Property Information

- Federal Flood Zone
- Horse: No
- Improvement Assessed Value: \$78,730
- Ownership Interest: Fee Simple

#### Land Information

- Additional Parcels
- Additional Parcels Description: 1092010020 - C-8, 1092010019 - R-2, 1092010018C - R-2
- Current Use: Storage Yard
- Possible Use: Warehouse, Storage Yard, Shopping Center, Senior Assisted/Day Care, Retail, Residential, Multi-Family, Mixed, Mini-Storage, Land/Lot Only, Investment, Industrial, Flex Space, Development, Commercial, Automotive

#### Building Information

- Construction Not Completed

#### Lot Information

- Ground Rent Payment Frequency: Annually
- Lot Size Dimensions: 8.17 Acres
- Lot Dimensions Source: Estimated
- Tidal Water: No

#### Farm Information

- Farm Land Preservation: No

## Financial

### Tax Information

- Agricultural Tax Due: No
- County Tax: \$8,765
- Tax Assessed Value: \$800,450

- Tax Year: 2023

- Tax Annual Amount: \$10,034

### Assessments Information

- Year Assessed: 2023

## Utilities

### Utilities Information

- 200+ Amp Service
- Water Source: Public

- Municipal Trash: No

## Location

### School Information

- School District Name: FAIRFAX COUNTY PUBLIC SCHOOLS
- School District Source: Listing Agent

### Location Information

- Outside City Limits
- Directions: Route 1 Alexandria to 8800 Richmond Hwy.

Details provided by BRIGHT MLS and may not match the public record. [Learn more.](#)

Advertisement

[Report ad](#)

## Sale and tax history for 8800 Richmond Hwy

[Sale History](#)      [Tax History](#)

### Today

Oct 1, 2023      Listed (Active)      \$4,000,000  
Date              BRIGHT MLS #VAFX2150016      Price

## Public facts and zoning for 8800 Richmond Hwy

Beds

— Lot Size

2.55 Acres

Baths

— Style

Other

Finished Sq Ft

— Year Built

—

Unfinished Sq. Ft.	—	Year Renovated	—
Total Sq. Ft.	1,080	County	Fairfax County
Stories	1	APN	1092 01 0020

Home facts updated by county records on Aug 24, 2023.

## Additional resources



### Zoning

Working on getting current and accurate zoning information for this home. [Learn more](#)

## Schools

GreatSchools Summary Rating

2/10	<b>Washington Mill Elementary School</b> Public, PreK-6 • Serves this home • 1.5mi	>
3/10	<b>Whitman Middle School</b> Public, 7-8 • Serves this home • 3.3mi	>
3/10	<b>Mount Vernon High School</b> Public, 9-12 • Serves this home • 2.0mi	>

School data is provided by GreatSchools, a nonprofit organization. Redfin recommends buyers and renters use GreatSchools information and ratings as a first step, and conduct their own investigation to determine their desired schools or school districts, including by contacting and visiting the schools themselves.

Redfin does not endorse or guarantee this information. School service boundaries are intended to be used as a reference only; they may change and are not guaranteed to be accurate. To verify school enrollment eligibility, contact the school district directly.

## Around this home

[Redfin](#) > [Virginia](#) > [Fairfax County](#) > [22309](#)

### Transportation near 8800 Richmond Hwy

<b>65</b> /100	<b>44</b> /100	<b>67</b> /100
Somewhat walkable Walk Score®	Some transit Transit Score®	Bikeable Bike Score®



### Places

5 groceries, 27 restaurants, 5 parks



### Transit

7

## Climate risks

## About climate risks

Most homes have some risk of natural disasters, and may be impacted by climate change due to rising temperatures and sea levels.

## Risk Factor ⓘ

-  **Flood Factor - Severe** >  
99% chance of flooding in next 30 years
  -  **Fire Factor - Moderate** >  
0.15% chance of being in a wildfire in next 30 years
  -  **Heat Factor - Severe** >  
7 days above 104° expected this year, 16 days in 30 years
  -  **Wind Factor - Moderate** >  
27% chance of strong winds in next 30 years

[View full Risk Factor report](#)

Provided by First Street Foundation

## Redfin Estimate for 8800 Richmond Hwy

**\$3,737,454**

▼ \$263K under list price of \$4.00M

## Nearby comparable homes

The Redfin Estimate uses 6 recent nearby sales, priced between \$500K to \$1.6M.



**\$1,000,000** Sold Price

3 beds 2.5 baths 2,521 sq ft  
8737 Lukens Ln, Alexandria, VA 22309

↓ smaller lot



**\$580,000** Sold Price

5 beds 2.5 baths 1,296 sq ft  
8309 Keeler St, Alexandria, VA 22309

↓ smaller lot

[View comparables on map](#)

## Nearby similar homes

Homes similar to 8800 Richmond Hwy are listed between \$65K to \$6M at an average of \$255 per square foot.

**\$400,000**

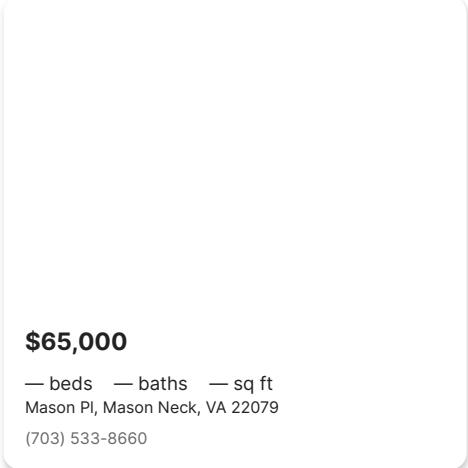
— beds — baths — sq ft  
4875 Dayton Pl, Indian Head, MD 20640  
(301) 375-7976

**\$5,950,000**

— beds — baths — sq ft  
11295 Cresswell Lndg, Lorton, VA 22079  
(703) 425-8000

**\$185,000**

— beds — baths — sq ft  
7638 Belmont Landing Rd, Lorton, VA 22079

**\$65,000**

— beds — baths — sq ft  
Mason Pl, Mason Neck, VA 22079  
(703) 533-8660

**\$584,000**

4 beds 3 baths 2,432 sq ft  
2843 Deer Creek Ct, Indian Head, MD 20640  
(888) 860-7369

**\$589,990**

4 beds 2.5 baths 2,036 sq ft  
16626 Tortola Dr, Accokeek, MD 20607  
(410) 774-1422

[View more homes](#)

## Nearby recently sold homes

Sorry, we don't have any nearby similar homes to display. See all recently sold homes in [22309](#)

## More real estate resources

[New Listings in 22309](#)[Zip Codes](#)[Nearby Cities](#)[Neighborhoods](#)[Popular Searches](#)

8617-D Beekman Pl Unit 17DD  
8508 Washington Ave  
3901 Belle Rive Ter  
8408 Orinda Ct #277

7980 Silverada Pl Unit C  
3805 Laramie Pl Unit H  
8533 Richmond Ave  
8505 Rosemont Cir

## Frequently asked questions for 8800 Richmond Hwy

What is 8800 Richmond Hwy?



How long has this home been listed on Redfin?



How many photos are available for this home?



What comparable homes are near this home?



How much is this home worth?



What's the full address of this home?



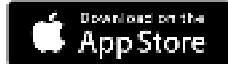
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GreatSchools Ratings provided by [GreatSchools.org](#).

Ann Jennings  
*Secretary of Natural and Historic  
 Resources and Chief Resilience Officer*

Clyde E. Cristman  
*Director*



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

January 10, 2022

Joni Calmbacher, PE, CFM  
 Project Manager II  
 DPWES, Stormwater Planning Division  
 Watershed Projects Implementation Branch – South  
 12000 Government Center Parkway Fairfax, VA 22035

RE: Fairfax County Resilience Plan Submission - CFPF

Dear Ms. Calmbacher,

Thank you for providing an overview of your Resilience Plan, and informing DCR of the various plans that Fairfax County will be utilizing to fulfill the Resilience Plan submission requirements. After careful review and consideration, the Virginia Department of Conservation and Recreation has deemed the Plan complete and meets all the criteria outlined in the 2021 Community Flood Preparedness Grant Manual. This approval will remain in effect for a period of three years, ending on January 11, 2025.

The following elements were evaluated as part of this review:

**1. Element 1: It is project-based with projects focused on flood control and resilience. DCR RESPONSE**

Meets criteria as written.

- a. Project-based: Fairfax County is divided into 30 watersheds which have been addressed in 11 major watershed management plans. Each of the watershed management plans contains projects and watershed management area restoration strategies. The *2017 Northern Virginia Hazard Mitigation Plan* was a regional effort involving nineteen counties, including Fairfax County, and outlines specific mitigation projects for each participating community in order to reduce vulnerability and exposure to future hazards, including flooding events. The *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* contains projects at various locations throughout Fairfax County. The projects included and described in the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* align with the established *Comprehensive Plan* objectives. The *Resilient Critical*

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

*Infrastructure Roadmap for Northern Virginia* contains a database of resilience projects throughout northern Virginia, including Fairfax County.

**2. Element 2: It incorporates nature-based infrastructure to the maximum extent possible. DCR RESPONSE**

Meets criteria as written.

- a. The 2020 *Regional Collaboration to Build Community Resilience in Northern Virginia* expanded upon *The Roadmap*, to include maximization of green infrastructure. Nature-based solutions are also presented in the *Fairfax County Watershed Management Plan* and the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*.

**3. Element 3: It includes considerations of all parts of a locality regardless of socioeconomics or race. DCR RESPONSE**

Meets criteria as written.

- a. All parts of a locality: The *Northern Virginia Hazard Mitigation Plan* discusses the demographic and economic trends throughout the entirety of Fairfax County.
- b. Social vulnerability: The *Regional Collaboration to Build Community Resilience in Northern Virginia* presents a more comprehensive approach that includes an assessment of the socioeconomic impacts of infrastructure disruptions on vulnerable populations that will be taken into account as well as the socioeconomic benefits of infrastructure investment. This expanded upon objectives contained within *The Roadmap*, to ensure equitable access to resilient critical infrastructure.
- c. Demographic Analysis: Population and demographic characteristics outlined within the *Northern Virginia Hazard Mitigation Plan*. The *Fairfax County Comprehensive Plan* also looks at demographics and social factors and utilizes this information to support the Human Services section of the *Comprehensive Plan*.

**4. Element 4: It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation. DCR RESPONSE**

Meets criteria as written.

- a. Coordination with other local and inter-jurisdictional projects, plans and activities: Objective 4: Strengthen Regional Resilience Through Innovative Partnerships, Programs, and Pilots contained within *Resilient Critical Infrastructure Roadmap for Northern Virginia* focuses on coordination with local and inter-jurisdictional agencies and aligning strategies and programs. The *Comprehensive Plan for Fairfax County, Virginia* was adopted by the Board of Supervisors, Planning Commission, The Department of Planning and Zoning, and the Department of Transportation, and guides all of the plans presented in the Resilience Plan

submission for Fairfax County. The *Northern Virginia Hazard Mitigation Plan* was a collaborative effort that was adopted by all impacted localities.

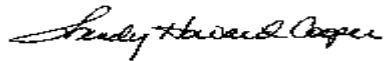
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*. Phased implementation plans presented in the *Fairfax County Watershed Management Plans*.
- 5. **Element 5: Is based on the best available science, and incorporates climate change, sea level rise, storm surge (where appropriate), and current flood maps.**

Meets criteria as written.

- a. The 2018 *Resilient Critical Infrastructure Roadmap for Northern Virginia (Roadmap)* incorporates best available science and identifies actions to potentially decrease the severity of future consequences emanating from climate and extreme weather, to include sea level rise and storm surge. *Sea Level Rise: Impact on Northern Virginia* is an interactive story map and dashboard that was created in 2019 to convey the impact of sea level rise scenarios. The *Northern Virginia Hazard Mitigation Plan* includes analyses of natural hazards based on best available science to include flooding, sea level rise and land subsidence, tropical and coastal storms, and shoreline erosion.

VA DCR looks forward to working with you as you work to make Fairfax County a more resilient community. If you have questions or need additional assistance, please contact us at [cfpf@dcr.virginia.gov](mailto:cfpf@dcr.virginia.gov). Again, thank you for your interest in the Community Flood Preparedness Fund.

Sincerely,

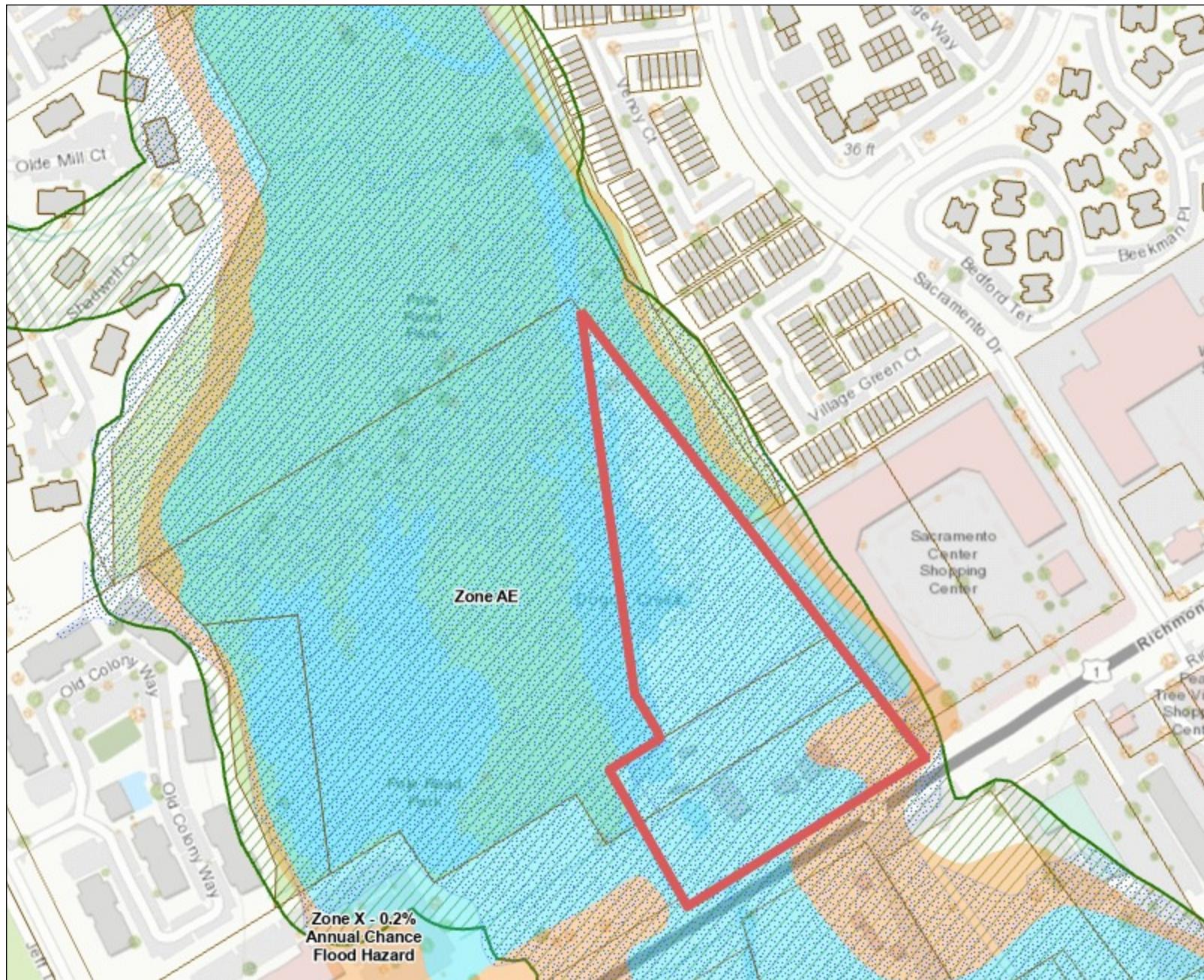


Wendy Howard Cooper, Director  
Dam Safety and Floodplain Management

cc: Darryl Glover, DCR



8800 Richmond Highway, Alexandria, VA 22309



#### Legend

- |                                  |                                                 |
|----------------------------------|-------------------------------------------------|
|                                  | Parcels                                         |
|                                  | Flood Plain Recorded                            |
| <b>FEMA Flood Hazard Areas</b>   |                                                 |
|                                  | Zone A Without Base Flood Elevation AH With BFE |
|                                  | Regulatory Floodway                             |
|                                  | Zone X - 0.2% Annual Chance Flood Hazard        |
|                                  | Zone X - Area With Reduced Flood                |
| <b>Resource Protection Areas</b> |                                                 |
|                                  | 1993 RPAs                                       |
|                                  | 2003 RPAs                                       |
|                                  | 2003 (Rev) RPAs                                 |

Notes:

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette



77°8'2"W 38°43'25"N



Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

### SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee. See Notes. Zone X

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- ||||| Levee, Dike, or Floodwall

20.2 Cross Sections with 1% Annual Chance

17.5 Water Surface Elevation

8 - - - Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

OTHER FEATURES

- Digital Data Available
- No Digital Data Available
- Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/23/2023 at 3:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



## Benefit-Cost Calculator

V.6.0 (Build 20231011.1703 | Release Notes)

Attachment 13

## Benefit-Cost Analysis

Project Name: 8800 Richmond Highway



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Acquisition @ 38.7195380; -77.1283109		Riverine Flood	\$ 4,246,415	\$ 4,000,000	1.06	\$ 9,403,581	\$ 4,000,000	2.35
<b>TOTAL (SELECTED)</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>
<b>TOTAL</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>

## Property Configuration

<b>Property Title:</b>	Acquisition @ 38.7195380; -77.1283109
<b>Property Location:</b>	22309, Fairfax, Virginia
<b>Property Coordinates:</b>	38.7195380398629, -77.12831090070694
<b>Hazard Type:</b>	Riverine Flood
<b>Mitigation Action Type:</b>	Acquisition
<b>Property Type:</b>	Non-Residential Building
<b>Analysis Method Type:</b>	Modeled Damages

## Cost Estimation

Acquisition @ 38.7195380; -77.1283109

<b>Project Useful Life (years):</b>	100
<b>Project Cost:</b>	\$4,000,000
<b>Number of Maintenance Years:</b>	100 Use Default:Yes
<b>Annual Maintenance Cost:</b>	\$0

## Hazard Probabilities Parameters - Flood

Acquisition @ 38.7195380; -77.1283109

**Lowest Floor Elevation of the Property (ft):** 0

**Streambed Elevation at the Property Location (ft):** 0

**Use Default Recurrence Intervals:** Use Defau **No**

## Discharge

Acquisition @ 38.7195380; -77.1283109

### BEFORE MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

### AFTER MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

## Estimated Annual Damages by Category

Acquisition @ 38.7195380; -77.1283109

## Before Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## After Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## Building Information

Acquisition @ 38.7195380; -77.1283109

**Non-Residential Occupancy Type:** Select Non-Residential Building Use**Building Type:****Building Is Engineered:** No**NFIP:** No

## Standard Benefits - Building

Acquisition @ 38.7195380; -77.1283109

**Depth Damage Curve:** Use Default:Yes**Building Size (sq.ft):** 0**Building Replacement Value (BRV) (\$/sq.ft):** \$100 Use Default:Yes**Demolition Threshold (%):** 50.00% Use Default:Yes**Expected Annual Losses due to Building Damages before Mitigation:** \$0**Expected Annual Losses due to Building Damages after Mitigation:** \$0**Expected Annual Benefits - Building:** \$0

## Depth Damage Curve - Building

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION				AFTER MITIGATION			
	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)

## Standard Benefits - Contents

Acquisition @ 38.7195380; -77.1283109

<b>Contents Value in Dollars:</b>	\$0	Use Default:Yes
<b>Expected Annual Losses due to Content Damages before Mitigation:</b>	\$0	
<b>Expected Annual Losses due to Content Damages after Mitigation:</b>	\$0	
<b>Expected Annual Benefits - Content:</b>	\$0	

## Depth Damage Curve - Contents

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Percent (%)	Damage Value (\$)	Percent (%)	Damage Value (\$)

## Standard Benefits - Displacement

Acquisition @ 38.7195380; -77.1283109

<b>Monthly Displacement Cost (\$/sq.ft/month):</b>	0	Use Default:Yes
<b>One-Time Displacement Cost (\$/sq.ft):</b>	0	Use Default:Yes
<b>Expected Annual Losses due to Displacement Damages before mitigation:</b>	\$0	
<b>Expected Annual Losses due to Displacement Damages after Mitigation:</b>	\$0	
<b>Expected Annual Losses - Displacement:</b>	\$0	

## Depth Damage Curve - Displacement

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Loss of Function/Loss of Income

Acquisition @ 38.7195380; -77.1283109

<b>Annual Operating Budget:</b>	\$0
<b>Loss of Function/Loss of Income Per Day:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income before mitigation:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income after mitigation:</b>	\$0
<b>Expected Annual Benefits - Expected Annual Benefits - Loss of Function/Loss of Income:</b>	\$0

Depth Damage Curve - Loss of Function/Loss of Income  
Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Street Maintenance Costs

Acquisition @ 38.7195380; -77.1283109

Total Annual Street Maintenance Budget (\$): \$0

Number of Street Miles Maintained: 0

Street Miles that will not require future maintenance: 0

Expected Annual Street Maintenance Benefits: \$0

## Standard Benefits - Volunteer Costs

Acquisition @ 38.7195380; -77.1283109

Number of Volunteers (volunteers/event): 0

Number of Days of Lodging: 0

Expected Annual Volunteer Benefits: \$0

## Standard Benefits - Ecosystem Services

Acquisition @ 38.7195380; -77.1283109

Total Project Area (acres): 8

Percentage of Urban Green Open Space: 0.00%

Percentage of Rural Green Open Space: 0.00%

Percentage of Riparian: 100.00%

Percentage of Coastal Wetlands: 0.00%

Percentage of Inland Wetlands: 0.00%

Percentage of Forests: 0.00%

Percentage of Coral Reefs: 0.00%

Percentage of Shellfish Reefs: 0.00%

Percentage of Beaches and Dunes: 0.00%

Expected Annual Ecosystem Services Benefits: \$297,592

**Benefits-Costs Summary**

Acquisition @ 38.7195380; -77.1283109

**Total Standard Mitigation Benefits:** \$4,246,415**Total Social Benefits:** \$0**Total Mitigation Project Benefits:** \$4,246,415**Total Mitigation Project Cost:** \$4,000,000**Benefit Cost Ratio - Standard:** 1.06**Benefit Cost Ratio - Standard + Social:** 1.06

Applicants must have prior approval from the Department to submit applications, forms, and supporting documents by mail in lieu of the WebGrants portal.

## Appendix A: Application Form for Grant and Loan Requests for All Categories

---

Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

Name of Local Government:

Category Being Applied for (check one):

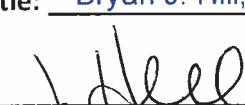
Capacity Building/Planning

Project

Study

NFIP/DCR Community Identification Number (CID) 515525

Name of Authorized Official and Title: Bryan J. Hill, County Executive

Signature of Authorized Official: 

Mailing Address (1): 12000 Government Center Parkway

Mailing Address (2): Suite 552

City: Fairfax State: VA Zip: 22035

Telephone Number: (703) 324-2531 Cell Phone Number: ( ) NA

Email Address: CEXBryanHill@fairfaxcounty.gov

Contact and Title (If different from authorized official): Joni Calmbacher

Mailing Address (1): 12000 Government Center Parkway

Mailing Address (2): Suite 449

City: Fairfax State: VA Zip: 22035

Telephone Number: (703) 324-5500 Cell Phone Number: (\_\_\_\_) NA

Email Address: Joni.Calmbacher@fairfaxcounty.gov

Is the proposal in this application intended to benefit a low-income geographic area as defined in the Part 1 Definitions? Yes        No X

**Categories (select applicable activities that will be included in the project and used for scoring criterion):**

**Capacity Building and Planning Grants**

- Floodplain Staff Capacity.
- Resilience Plan Development
  - Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans.
  - Resource assessments, planning, strategies, and development.
    - Policy management and/or development.
    - Stakeholder engagement and strategies.
- Other: \_\_\_\_\_

**Study Grants (Check All that Apply)**

- Studies to aid in updating floodplain ordinances to maintain compliance with the NFIP, or to incorporate higher standards that may reduce the risk of flood damage. This must include establishing processes for implementing the ordinance, including but not limited to, permitting, record retention, violations, and variances. This may include revising a floodplain ordinance when the community is getting new Flood Insurance Rate Maps (FIRMs), updating a floodplain ordinance to include floodplain setbacks, freeboard, or other

higher standards, RiskMAP public noticing requirements, or correcting issues identified in a Corrective Action Plan.

- Revising other land use ordinances to incorporate flood protection and mitigation goals, standards, and practices.
- Conducting hydrologic and hydraulic (H&H) studies of floodplains. *Changes to the base flood, as demonstrated by the H&H must be submitted to FEMA within 6 months of the data becoming available.*
- Studies and Data Collection of Statewide and Regional Significance.
- Revisions to existing resilience plans and modifications to existing comprehensive and hazard.
- Other relevant flood prevention and protection project or study.

**Project Grants and Loans (Check All that Apply – Hybrid Solutions will include items from both the “Nature-Based” and “Other” categories)**

**Nature-based solutions**

- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development, and where the flood mitigation benefits will be achieved as a part of the same project as the property acquisition.
- Wetland restoration.
- Floodplain restoration.
- Construction of swales and settling ponds.
- Living shorelines and vegetated buffers.
- Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia* Floodplain and Flooding Resilience layer or a similar data driven analytic tool, or the acquisition of developed land for future conservation.
- Dam removal.
- Stream bank restoration or stabilization.
- Restoration of floodplains to natural and beneficial function.

**Other Projects**

- Structural floodwalls, levees, berms, flood gates, structural conveyances.
- Storm water system upgrades.
- Medium and large-scale Low Impact Development (LID) in urban areas.

- Developing flood warning and response systems, which may include gauge installation, to notify residents of potential emergency flooding events.
- Dam restoration.
- Beneficial reuse of dredge materials for flood mitigation purposes
- Removal or relocation of structures from flood-prone areas where the land will not be returned to open space.
- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development, and where the flood mitigation benefits will not be achieved as a part of the same project as the property acquisition.
- Other project identified in a DCR-approved Resilience Plan.

**Location of Project or Activity (Include Maps):** 8800 Richmond Highway, Alexandria VA 22309

**NFIP Community Identification Number (CID#) :** 515525

**Is Project Located in an NFIP Participating Community?**  Yes  No

**Is Project Located in a Special Flood Hazard Area?**  Yes  No

**Flood Zone(s) (If Applicable):** FEMA Zone AE

**Flood Insurance Rate Map Number(s) (If Applicable):** 51059C0385E

**Total Cost of Project:** \$4,000,000

**Total Amount Requested** \$2,800,000

**Amount Requested as Grant** \$2,800,000

**Amount Requested as Project Loan (not including short-term loans for up-front costs)**  
N/A

**Amount Requested as Short-Term loan for Up-Front Costs (not to exceed 20% of amount requested as Grant)** N/A

**For projects, planning, capacity building, and studies in low-income geographic areas: Are you requesting that match be waived?**  Yes  No

**Additional Information for Loan Requests**

**Requested Loan Security:** N/A

(General Obligation, Lease, Revenue, Special Fund Revenue, and/or Moral obligation from other government entity)

**Desired loan term:** N/A

**Since the date of your latest financial statements, did the applicant issue any new debt?** N/A  
(If yes, provide details)

**Is there any pending or potential litigation by or against the applicant?** N/A

**Attach five years of current audited financial statements (FY18-22) or refer to website if posted**  
(Not necessary for existing VRA borrowers)

**Attach FY2024 adopted budget or refer to website**

**Attach current Capital Improvement Plan**

**Attach adopted Financial Policies**

**Attach a list of the ten largest employers in the Applicant's jurisdiction.**

**Attach a list of the ten largest taxpayers in the Applicant's jurisdiction**

Fairfax County: 8800 Richmond Highway Voluntary Land Acquisition  
 Community Flood Preparedness Fund &  
 Resilient Virginia Revolving Loan Fund

Detailed Budget Narrative

Period of Performance: Spring 2024 through Spring 2027  
 Submission Date: November 2023

								Grand Total State Funding Request	\$2,800,000
								Grand Total Local Share of Project	\$1,200,000
								Federal Funding (if applicable)	\$ -
								Project Grand Total	\$4,000,000
								Locality Cost Match	30%
Breakout By Cost Type	Personnel	Fringe	Travel	Equipment	Supplies	Contracts	Indirect Costs	Other Costs	Total
Federal Share (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,200,000	\$ -	\$ -	\$ 1,200,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,800,000.00	\$ -	\$ -	\$ 2,800,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000.00	\$ -	\$ -	\$ 4,000,000.00

## Appendix C: Checklist All Categories

(*Benefit-cost analysis must be included if the proposed Project is over \$2 million.*)

Virginia Department of Conservation and Recreation

Community Flood Preparedness Fund Grant Program

- 
- Detailed map of the project area(s) (Projects/Studies)
  - FIRMette of the project area(s) (Projects/Studies)
  - Historic flood damage data and/or images (Projects/Studies)
  - A link to or a copy of the current floodplain ordinance
  - Non-Fund financed maintenance and management plan for project extending a minimum of 10 years from project close
  - A link to or a copy of the current comprehensive plan
  - Social vulnerability index score(s) for the project area from VFRIS SVI Layer
  - If applicant is not a town, city, or county, letters of support from affected localities
  - Letter of support from impacted stakeholders
  - Budget Narrative
  - Supporting Documentation, including the Benefit-Cost Analysis tool/narrative (for projects over \$2 million)
  - Authorization to request funding from the Fund from governing body or chief executive of the local government

Signed pledge agreement from each contributing organization

Detailed budget and narrative for all costs

## Appendix D: Scoring Criteria

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Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

### SCORING CRITERIA PER CATEGORY

#### Projects

Eligible Projects, up to 30 points.

- Acquisition (30)
- Wetland/floodplain restoration, Construction of swales and settling ponds, Living shorelines and vegetated buffers, Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia*'s floodplain and flooding Resilience layer or a similar data driven analytic tool, Dam removal, Stream bank restoration or stabilization, Restoration of floodplains to natural and beneficial function. (25)
- Other nature-based approach (20)
- Hybrid approach resulting in nature-based solution (15)
- All other projects (10)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Community scale of benefits, up to 30 points.

- More than one census block (30)
- 50-100% of census block (25)
- 25-49% of census block (20)
- Less than 25% of census block (0)

Expected lifespan of project, up to 10 points.

- 10 -14 Years (3)
- 15 - 20 Years (5)
- Over 20 Years (10)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 10, no 0)

Proposed project implements a Chesapeake Bay TMDL BMP (yes 5, no 0)

### **Studies**

Revising floodplain ordinances to maintain compliance with the NFIP or to incorporate higher standards that may reduce the risk of flood damage, 30 points.

Creating tools or applications to identify, aggregate, or display information on flood risk or creating a crowd-sourced mapping platform that gathers data points about real-time flooding.

This could include a locally or regionally based web-based mapping product that allows local residents to better understand their flood risk, 25 points.

Conducting hydrologic and hydraulic studies of floodplains. Applicants who create new maps must apply for a Letter of Map Change through the Federal Emergency Management Agency (FEMA), 15 points.

Studies and Data Collection of Statewide and Regional Significance. Funding of studies of statewide and regional significance and proposals will be considered for the studies listed below, Up to 45 points.

- Updating precipitation data and IDF information (rain intensity, duration, frequency estimates) including such data at a sub-state or regional scale on a periodic basis. (45)
- Regional relative sea level rise projections for use in determining future impacts. (45)
- Vulnerability analysis either statewide or regionally to state transportation, water supply, water treatment, impounding structures, or other significant and vital infrastructure from flooding. (45)
- Flash flood studies and modeling in riverine regions of the state. (45)
- Statewide or regional stream gauge monitoring to include expansion of existing gauge networks. (45)
- New or updated delineations of areas of recurrent flooding, stormwater flooding, and storm surge vulnerability in coastal areas that include projections for future conditions based on sea level rise, more intense rainfall events, or other relevant flood risk factors. (45)
- Regional flood studies in riverine communities that may include watershed scale evaluation, updated estimates of rainfall intensity, or other information. (45)
- Regional hydrologic and hydraulic studies of floodplains. (45)
- Studies of potential land use strategies that could be implemented by a local government to reduce or mitigate damage from coastal or riverine flooding. (40)
- Other proposals that will significantly improve protection from flooding on a statewide or regional basis (35)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 10, no 0)

Proposed project implements a Chesapeake Bay TMDL BMP (yes 5, no 0)

### **Capacity Building and Planning**

Eligible Capacity Building and Planning Activities. Up to 100 points.

Development of a new resilience plan (95)

Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans (60)

Resource assessments, planning, strategies, and development (40)

Policy management and/or development (35)

Stakeholder engagement and strategies (35)

Goal planning, implementation, and evaluation (25)

Long term maintenance strategy (25)

Other proposals that will significantly improve protection from flooding on a statewide or regional basis approved by the Department (15)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Community scale of benefits, up to 30 points.

- More than one census block (30)
- 50-100% of census block (25)
- 25-49% of census block (20)
- Less than 25% of census block (0)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 5, no 0)

# FAIRFAX COUNTY

## Richmond Highway Voluntary Land Acquisition

Virginia Community Flood Preparedness Fund

F2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-1 (Richmond Hwy)



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## Attachments

- Attachment 1. Staff Report for Plan Amendment 2018-IV-MV2
- Attachment 2. Staff Report Addendum for Plan Amendment 2018-IV-MV2
- Attachment 3. 8800 Richmond Highway Planned Land Use
- Attachment 4. Fairfax County Fiscal Year 2024 Stormwater Budget
- Attachment 5. Request for funding authorization
- Attachment 6. Resilient Fairfax Goal AE.1
- Attachment 7. Fairfax County Floodplain Management Plan Progress Report
- Attachment 8. Virginia Flood Risk Information System Social Vulnerability Index
- Attachment 9. Property Sales Listing
- Attachment 10. Fairfax County Resilience Plan Approval
- Attachment 11. Project Detailed Map
- Attachment 12. FEMA National Flood Hazard Layer FIRMette
- Attachment 13: Benefit-Cost Analysis

## Appendices

- Appendix A
- Appendix B
- Appendix C
- Appendix D

## Executive Summary

Fairfax County is applying for grant assistance under the Virginia Department of Conservation and Recreation (DCR) Community Flood Preparedness Fund (CFPF) Round 4 ‘Project’ category to help voluntarily acquire a property located in the 100-year floodplain for permanent conservation. The project, *Richmond Highway Voluntary Acquisition*, includes the purchase of three partially developed parcels and the restoration of natural features to restore the riparian buffer and floodplain functions.

DCR approved the County’s Resilience Plan on January 10, 2022. The County has integrated flood mitigation and resilience goals across areas of the local government, with flood resilience a priority addressed holistically through watershed and countywide comprehensive planning. The County has established requirements for development controls in the floodplain through zoning and the local floodplain ordinance. To address recent repetitive floodings, the County is in the process of preparing a draft flood risk reduction plan. The County is also developing a comprehensive regulated floodplain map to assess and implement future projects.

The proposed project meets the County’s ambitious comprehensive plan goals by transforming a partially developed property in the floodplain and resource protection area into conserved open space that can serve as a park amenity to the surrounding underserved communities.

### A. Scope of Work Narrative

#### 1. Project Information

8800 Richmond Highway, Alexandria, VA 22309, is an approximately eight-acre area of land in the Mount Vernon Magisterial District comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. The subject area is bounded by Richmond Highway to the south, the Woodlawn Community Business Center (CBC) to the east, and Dogue Creek to the west and north, as shown in Figure 1. Pole Road Park is adjacent to the subject area to the north and west. Parcel 20, approximately 2.5 acres in size, fronts Richmond Highway, is zoned C-8 Highway Commercial District, and is partially developed with a welding operation. Parcels 19 and 18C, approximately 1.2 and 4.2 acres in size, respectively, are located north of Parcel 20. These parcels are zoned R-2 Residential District (two du/ac), and are vacant, but contain remnants of a gravel surface parking lot used for vehicle storage (see Figures 2 and 3). The majority of all three parcels are located in the 100-year floodplain.

Under the current comprehensive plan, the property is planned as private open space, but there are continued attempts to redevelop the site. In 2018, the County Board of Supervisors authorized consideration of a Plan Amendment to evaluate residential use at a density up to eight dwelling units per acre. Ultimately, County staff did not support the Plan Amendment citing the environmental and risk concerns of placing residential buildings in the floodplain and the Plan Amendment was deferred indefinitely. The Plan Amendment staff report and addendum are provided as Attachments 1 and 2 at the end of this application. Most recently, a car dealership has expressed interest in using the property for vehicle storage and a future dealership site.

The property owners support the voluntary acquisition of the property by Fairfax County. Selling to Fairfax County involves less risk than selling for redevelopment that would likely be

contingent on the rezoning application approval. The County would restore the stream natural buffer with native landscaping, provide tree plantings and preservation, and conduct invasive plant management. The County would place a conservation easement over the three parcels and ultimately transfer them to the Fairfax County Park Authority to expand Pole Road Park. Pole Road Park is a county-owned park that is generally preserved as a conservation area with limited recreational amenities and some trails. The park is connected by Dogue Creek to the Jackson M. Abbott Wetland Refuge.

*Figure 1: Property Environmental Features*



*Figures 2 & 3: Aerial view of 8800 Richmond Highway*



### *Population*

Fairfax County has a population of about 1.17 million. The project is located within Census Block 421800-1000 (population 2,214) and bordered by Census Blocks 421800-1003 (population 2,314) and 416100-1008 (population 2,552). In total, 7,080 residents will have direct access to this future park space, with thousands more within walking distance of the amenity. Presently,

communities along Richmond Highway cannot access Pole Road Park because access is blocked by this property.

#### *Historic Flooding Data and Hydrologic Studies*

The property is located almost entirely within the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area Zone AE (Figure 4). Additionally, the Richmond Highway bridge over Dogue Creek adjacent to the property is known as a frequently flooded road site (Figure 5).

Figure 4: National Flood Hazard Layer FIRMette

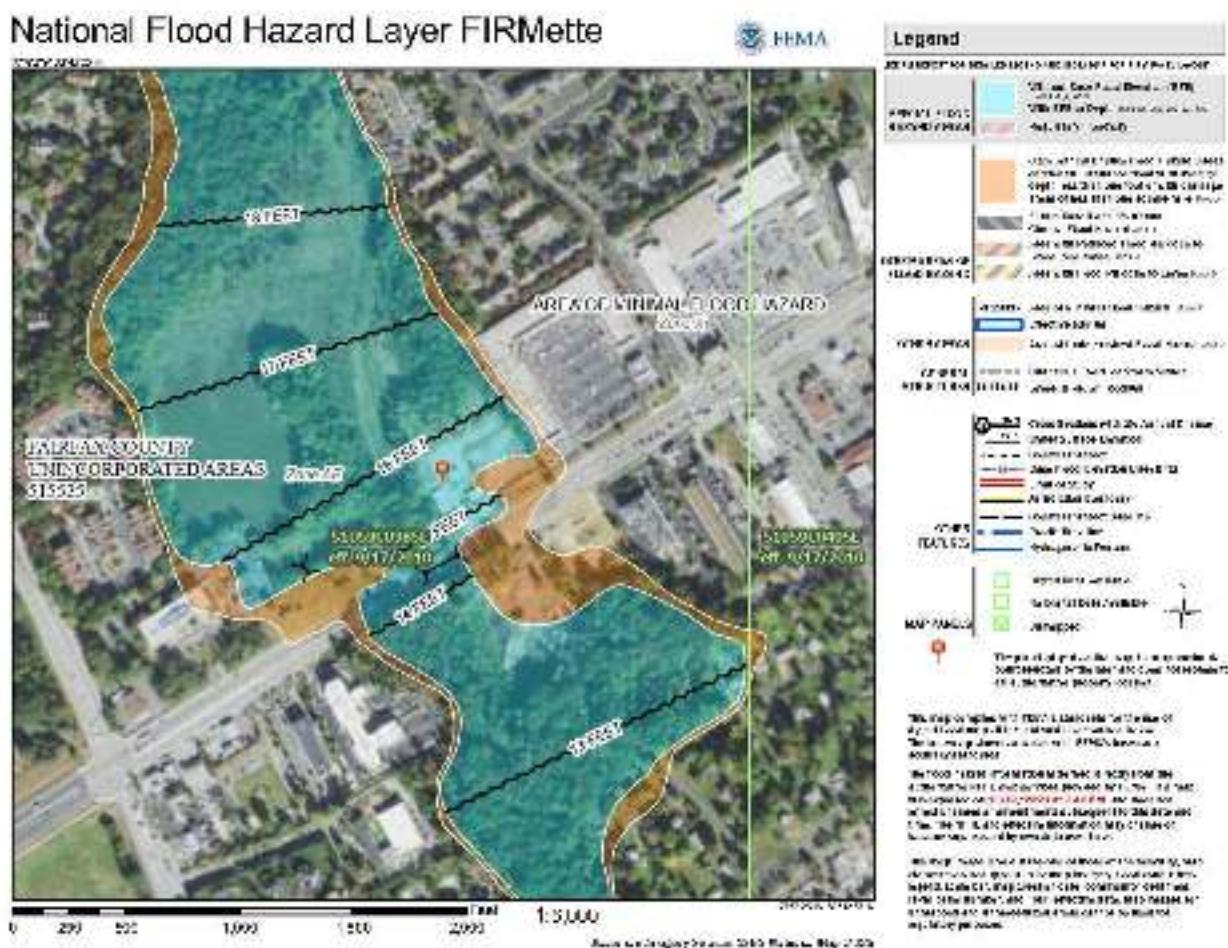


Figure 5: Fairfax County Frequently Flooded Road Sites



### *Local Government Cost Share*

Voluntary acquisition of the property meets the planned land use of the [2017 Mount Vernon Comprehensive Plan](#). It is currently anticipated that the County's cost-share would be provided through Stream and Water Quality Improvements under Fund 40100 Stormwater Services in the Fairfax County Fiscal Year 2024 budget (see Attachment 3 for the comprehensive plan land use, Attachment 4 for County budget document, and Attachment 5 for a match authorization letter from the County Executive.)

### *County Floodplain Management Regulations*

Fairfax County, CID #515525, is listed in FEMA's Community Status Book Report as a community participating in the National Flood Insurance Program (NFIP). In addition, Fairfax County participates in the Community Rating System (CRS) and received a Class 6 rating in the most recent verification process. Floodplains are regulated under article 5104 of the county's Zoning Ordinance. The Zoning Ordinance is included in the link below:

<https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251>

Fairfax County regulates proposed uses and disturbances in the 100-year flood inundation area associated with all channels or conveyance systems that have a contributing drainage area of 70 acres or more. Currently, existing floodplain boundaries and water surface elevations are available from several sources and a significant portion of regulated floodplain is not mapped.

A separate effort to develop a comprehensive regulated floodplain map is currently underway.

Based on the 2010 mapping of the Special Flood Hazard Areas (SFHAs) by FEMA, the property is located almost entirely within Zone AE.

### *Project Priority*

#### *Flood Damage*

This project is prioritized in the Mount Vernon District due to continued redevelopment pressure. While the locality allows redevelopment within the floodplain in accordance with the County floodplain management regulations (see above), Fairfax County would prefer the site be converted to preserved open space. The open space meets several County priorities, including the expansion of green space in and adjacent to historically underserved communities, increased resiliency to heat and flood risks associated with climate change, and improved ecological conditions with local stream valleys. While there is no record of structural flooding on the property, the adjacent Richmond Highway bridge over Dogue Creek adjacent to the property is known as a frequently flooded road site (see Figure 5 above).

#### *Project Area Structures and Critical Facilities*

Currently the property includes two one-story commercial structures. The objective of the voluntary land acquisition is to prevent the redevelopment of the property with new structures that may be prone to future flooding due to the uncertainty of climate change and the potential for more frequent high-intensity short-duration events exceeding the 100-year storm.

## 2. Need for Assistance

### *Financial and Staff Resources*

The Stormwater Services Emergency and Flood Response Projects program supports flood control projects for unanticipated flooding events that impact storm systems and structural flooding. The program provides annual funding for scoping, design, and construction activities related to flood mitigation projects, but does not currently include funding for voluntary acquisition of flood-prone properties. Fairfax County's advertised Fiscal Year 2024 Stormwater Services budget includes \$7.0 million for emergency and flood response projects (see Figure 6), but there is an estimated total cost of \$43.9 million for active flood mitigation projects. With the increase in the frequency and intensity of storms due to climate change, we expect the number of flood mitigation projects to grow, and the associated project design and construction costs will extend well beyond what the county's current emergency and flood response program can support.

The Resilient Fairfax Plan Goal AE.1 strategy encourages surveying and protecting areas that provide Natural Resilience Benefits (Attachment 6). The Fairfax County Floodplain Management Plan also recommends using permanent easements to prevent development in the high priority undeveloped floodplain areas (Attachment 7). Other than federal FEMA grant programs, there is currently no County designated funding source for voluntary acquisition of flood-prone properties to meet the County's climate resiliency and floodplain management goals. This project will serve as a model for the potential future development of a voluntary land acquisition program.

*Figure 7. Fiscal Year 2024 Adopted Budget- Stormwater Services Summary of Capital Projects*

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000	6,000,000
Dam Safety and Facility Rehabilitation (SD-000033)	68,576,104	5,039,029.28	12,188,745.52	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,546.30	82,119,862.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>

### *Low Income Geographic Areas*

The project does not fall in a low-income geographic area.

### *Vulnerability Index*

Based on the Virginia Flood Risk Information System (VFRIS) Social Vulnerability Index, the project is not in a socially vulnerable area; however, several of the adjacent census blocks within walking distance to the site receive very high scores (Attachment 8).

According to data provided by the [Fairfax County Vulnerability Index](#), the census block is rated as ‘highly vulnerable’ with a median household income of \$62,679 which is half the county average as well as a lower-than-average educational attainment and a high percentage of non-English speakers. The Fairfax County Park Authority notes that the area scores high on the Park

Authority's Racial Equity Index (PAREI) because it is both a vulnerable and high-density population.

#### *Alternatives*

Several alternative options for the 8800 Richmond Highway property have already been proposed, but every alternative includes redevelopment of the flood-prone property. The most detailed option is documented in the Plan Amendment 2018-IV-MV2 staff report and addendum (Attachments 1 and 2) to rezone the property for residential use at a density up to eight dwelling units per acre. This alternative goes against a long-standing County policy to prohibit new residential structures in flood impact hazard areas and protect and restore environmental quality corridors along streams. The property is currently listed for sale (see Attachment 9) and a car dealership expressed interest in purchasing the parcels for vehicle storage and future development as a car dealership. There is also by-right development potential on the commercial parcels closest to Richmond Highway making these easier to develop with strip commercial uses.

### 3. Goals and Objectives

The following are the primary goals and objectives of the project:

- Enhance the broader natural and built environment networks within the Mount Vernon Richmond Highway corridor by purchasing and restoring property within the Dogue Creek 100-year floodplain.
- Protect downstream estuary by preventing mobilization of sediment from adjacent wetland in the event of redevelopment.
- Address public safety concerns by removing property within the 100-year floodplain from potential future redevelopment.
- Provide a vital connection for vulnerable communities that lack park access to Pole Road Park as shown in Figure 8.

*Figure 8: 8800 Richmond Highway Trail Connection to Pole Road Park  
(source: Fairfax County Comprehensive Plan)*



#### 4. Approach, Milestones, and Deliverables

Upon grant approval, project activities will begin immediately, and the County will conduct the property acquisition process. The County would utilize an on-call consultant to complete a demolition and restoration plan for the site. The property would also be permanently protected as open space through a conservation easement. See Table 1 for a more detailed outline of the tasks and anticipated durations.

*Table 1: Project Schedule*

DURATION	TASK DESCRIPTION
<b>Begin to Month 6*</b>	Complete negotiation to purchase the property and complete the land acquisition process. Begin demolition and restoration plan for the site.
<b>Month 6 to 12</b>	Complete design and start permitting and procurement for structure demolition. Record permanent conservation easement.
<b>Month 12 to 18</b>	Complete demolition of structures and appurtenances and select on-call contractor for site restoration.
<b>Month 18 to 24*</b>	Complete site restoration, including stream restoration and native planting and landscaping.
<b>Month 24 to 29</b>	Transfer property to the Fairfax County Park Authority.

\*Milestone

The milestones for the project include: (1) the voluntary acquisition of the property; and (2) the completion of the site demolition and restoration.

Project deliverables include acquisition of the property, recordation of the conservation easement, and demolition and restoration of the site.

## 5. Work Plan

Major Tasks	Responsible Party	Timeframe	Partners
Voluntary Acquisition of Property	County	6 months from grant award and acceptance	Property Owner
Start permitting, procurement for structure demolition, and record conservation easement	County	Within 6 months of property acquisition	N/A
Complete Demotion and Begin Site Restoration	Contractor and County	Within 12 months of property acquisition	N/A
Complete Site Restoration	Contractor and County	6 months from completion of structure demolition	Fairfax County Park Authority
Transfer Property to FC Park Authority	County	Within 5 months of completion of site restoration	Fairfax County Park Authority

## 6. Relationship to Other Projects

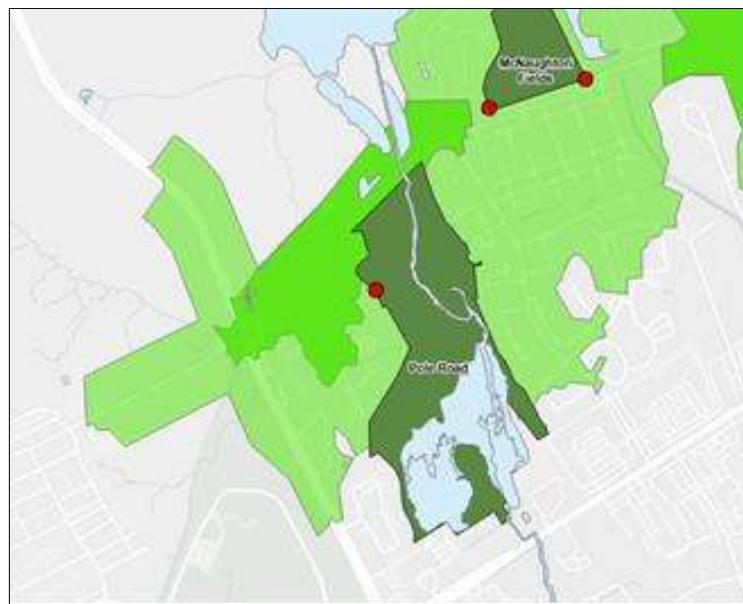
The voluntary acquisition and restoration of 8800 Richmond Highway will fill a vital gap within the Dogue Creek stream valley. The property will provide a connection from Richmond Highway to Pole Road Park as seen in Figure 8 providing important access to parks for residents who live along the

highway corridor. The property is also directly upstream of two active stream and floodplain restoration projects. As a part of the Richmond Highway Corridor Improvements project, the Virginia Department of Transportation (VDOT) will replace the existing Richmond Highway bridge over Dogue creek and stabilize and restore the corresponding section of Dogue Creek. More information on the bridge replacement and stream work can be found on the project website: [Richmond Highway Corridor Improvements in Fairfax County - Projects | Virginia Department of Transportation \(virginiadot.org\)](https://www.virginiadot.org/Projects/Richmond_Highway_Corridor_Improvements_in_Fairfax_County.aspx). In coordination with VDOT, Fairfax County will restore the section of Dogue Creek downstream of the Richmond Highway bridge to Old Mill Road. The Dogue Creek at Old Mill Road stream restoration is currently in design and more information can be found on the project webpage: [Dogue Creek at Old Mill Road | Public Works and Environmental Services \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/public-works-and-environmental-services/dogue-creek-at-old-mill-road).

These projects tie into the greater County vision for the Woodlawn Community Business Center (CBC) as detailed in the Mount Vernon Comprehensive Plan (Plan). The Plan envisions the creation of coordinated, transit-oriented places that highlight and strengthen the historical and ecological attributes of the Richmond Highway corridor; a new network of parks and open spaces; and pedestrian-scaled mixed-use development to form a series of vibrant, well-connected places that will contribute to the greater Richmond Highway community. As one of the six nodes in the Richmond Highway Corridor, the Woodlawn CBC is envisioned to evolve as a transit-oriented, mixed-use village and tourist hub served by a planned bus rapid transit (BRT) system. As described in the adopted Plan guidance, the Woodlawn CBC is planned for approximately 1,020 dwelling units, envisioned as townhomes and multifamily units, and 887,000 gross square feet of non-residential uses, or roughly 2,614 jobs based on square feet per job conversion factors for different types of planned non-residential uses (office, retail, and hotel). The full Plan can be found here: [2017 Edition of the Comprehensive Plan - Mount Vernon Planning District \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/planning-development/comprehensive-plans/mount-vernon-comprehensive-plan).

The PROSA Strategy, which was endorsed by the Park Authority Board in September 2023, is the Park Authority's data-driven approach and framework to provide a countywide roadmap for improved park access, a balance of recreational experiences, bolster habitat connectivity, and prioritize recreation needs and projects with an equity lens to meet the diverse needs of Fairfax County residents. Two key elements of PROSA are improving ten-minute walk access to parks and prioritizing park and recreation needs with an equity lens. Acquisition, restoration, and ultimate dedication of 8800 Richmond Highway as park space plays a key role in increasing access to underserved communities in vicinity of property (see Figure 9).

*Figure 9: Ten-minute Walk Shed to a Park Entrance in the Vicinity of 8800 Richmond Highway (source: Fairfax County Park Authority) Note: County parks are in dark green, ten-minute walk sheds are in light green, and park entrances are the red dots.*



The acquisition and inclusion of 8800 Richmond Highway will provide important linkage and additions to these connected corridor improvement projects. The restored floodplain will provide additional storage capacity to reduce local flooding. The restoration of the channel section on-site will prevent large amount of sediment currently sitting in the wetland pool on the property from being mobilized by erosive stream flows, thus protecting the downstream estuary. The stream restoration will also improve fish passage for local but also anadromous and catadromous species from the Dogue Creek tidal estuary upstream to Pole Road Park, Jackson Abbot Wildlife Refuge and Huntley Meadows Park. This restored corridor along with the planned county stream restoration and Richmond Highway improvements, will improve linkage not only for the human inhabitants, but for floral and faunal wildlife species. The restored floodplain will buffer and expand adjacent wetlands and provide greatly improved native plant biomass, thus improving carbon sequestration functions and supporting biodiversity.

## 7. Maintenance Plan

Fairfax County has a dedicated maintenance program. The Maintenance and Stormwater Management Division (MSMD) maintains all public stormwater infrastructure and facilities, including stream buffer restoration and reforestation projects. Since this project will be constructed by the county, it will be maintained by MSMD. An official post construction maintenance plan will be developed during the design phase of the site demolition restoration.

## B. Scoring Criteria

Appendix D is completed and included in the Appendix section at the end of this application.

1. Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the

General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these or a recognized state or federal Indian tribe?

*The applicant (Fairfax County) is a local jurisdiction in the Commonwealth of Virginia*

2. Does the local government have an approved resilience plan meeting the criteria as established by this grant manual? Has it been attached or a link provided?  
*The County has an approved resilience plan (see Attachment 10)*
3. For local governments that are not towns, cities, or counties, have letters of support been provided from affected local governments?  
*This criterion is not applicable. The applicant is a local jurisdiction.*
4. Has the applicant provided evidence of an ability to provide the required match funds?  
*The match funds for the project are included in the adopted Fiscal Year 2024 CIP for Stream and Water Quality Improvement Projects (see Attachment 5).*
5. Has the applicant demonstrated, to the extent possible, the positive impacts of the project or study on prevention of flooding?  
*The main objective of this project is to purchase three partially developed parcels in the 100-year floodplain, restore the riparian buffer and floodplain functions, and convert the property to conserved open space.*

#### SUPPORTING DOCUMENTATION

Scope of Work Narrative	
Documents	Link or Attachment
Detailed map of the project area	Attachment 11
FIRMette of the project area	Attachment 12
Historic flood damage data/image	Figure 5 above
Link to the current floodplain ordinance	<a href="https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251</a>
No-fund maintenance and management plan	Described in maintenance plan above
Copy of the current hazard mitigation plan	<a href="https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan_combined.pdf">https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan_combined.pdf</a>
Copy of the current comprehensive plan	<a href="https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf">https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf</a>
Social vulnerability index score(s) for the project area from <a href="https://consapps.dcr.virginia.gov/VFRIS/">https://consapps.dcr.virginia.gov/VFRIS/</a>	Attachment 8

Completed Scoring Criteria Sheet Appendix A, B, C, D	Included in Appendices at the end of the application
Census Block(s)	421800-1000, 421800-1003, and 416100-1008

## C. Budget Narrative

### 1. Estimated Total Project Cost

The total project cost for acquisition and restoration of the site is \$4,000,000.

#### **Estimated total project cost: \$4,000,000**

Estimated Land Acquisition Cost: \$3,500,000

Estimated Design Cost: \$50,000

Estimated Demolition and Restoration Cost: \$450,000

See Attachment 9 for the active property sales listing. The listing reflects the non-negotiated price and does not consider the land use and environmental constraints on the property. The County is currently completing an assessment of the three parcels and it is assumed the County will be able to negotiate the final property cost based on its assessed value. If the negotiated value exceeds \$3,500,000, Fairfax County will fund the difference in addition to the local match.

### 2. Funds Requested

The County requests \$2,800,000 from the Fund. 100% of this grant will be applied to the acquisition and restoration of the property.

### 3. Available Funds

Funds for the cost-share are available in *Stream and Water Quality Improvements* under Fund 40100 Stormwater Services in the advertised Fairfax County Fiscal Year 2024 budget (Attachment 4).

See Attachment 5 for the Letter from the County Executive, Bryan Hill, confirming the necessary match for this application and the other three applications submitted by the County for the 2023 application cycle.

### 4. Benefit Cost Analysis

The proposed project is over \$2,000,000, so a benefit-cost analysis is included as Attachment 13. Using the FEMA Benefit-Cost Calculator V.6.0, the Benefit Cost Ration (BCR) using the 7% discount rate is 1.06. The BCR using the 3% discount rate is 2.35.

## D. Conclusion

The proposed project meets the County's ambitious comprehensive plan goals by transforming a partially developed property in the floodplain and resource protection area into conserved open space that can serve as a park amenity and trail connection to the surrounding socially vulnerable neighborhoods. Voluntary acquisition of property in the 100-year floodplain meets

multiple County priorities, as identified in the Resilient Fairfax and Floodplain Management Plan and complements existing downstream stream restoration projects currently in design. This project will serve as a model for the potential future development of a voluntary land acquisition program.



## PROPOSED COMPREHENSIVE PLAN AMENDMENT

ITEM: PA 2018-IV-MV2  
July 5, 2018

**GENERAL LOCATION:** North of Richmond Highway, west of Sacramento Center, east of Pole Road Park

**SUPERVISOR DISTRICT:** Mount Vernon

**PLANNING AREA:** Area IV

**PLANNING DISTRICT:**  
Mount Vernon Planning District

**SUB-DISTRICT DESIGNATION:**  
Richmond Highway Corridor Area,  
MV8 Woodlawn Community Planning Sector

**PARCEL LOCATION:** 109-2 ((1)) 18C, 19, and 20

For additional information about this amendment call (703) 324-1380.

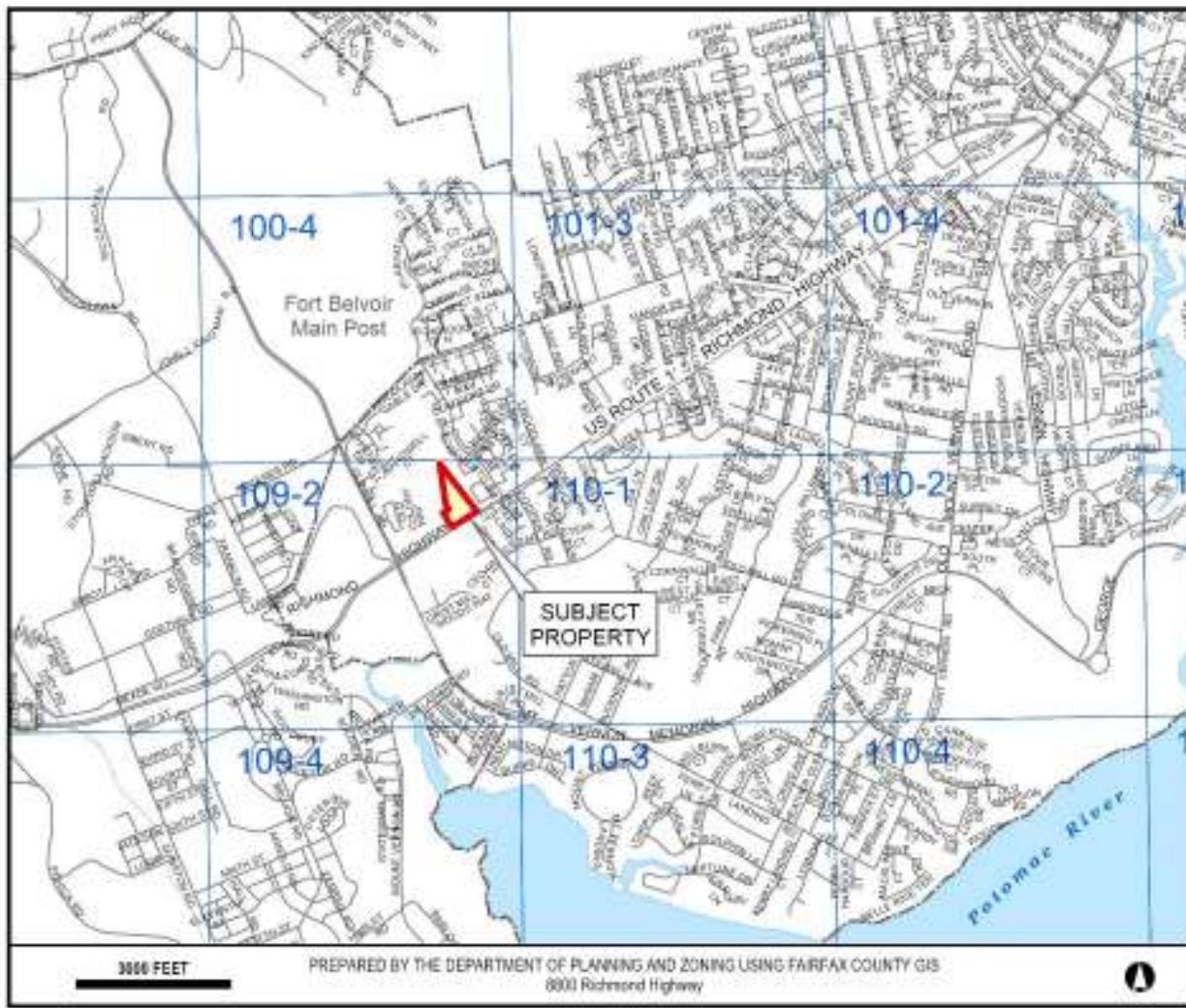
**PLANNING COMMISSION PUBLIC HEARING:**  
Thursday, July 19, 2018 @ 7:30 PM

**BOARD OF SUPERVISORS PUBLIC HEARING:**  
Tuesday, September 25, 2018 @ 4:00 PM

**PLANNING STAFF DOES NOT RECOMMEND**  
**THIS ITEM FOR PLAN AMENDMENT**



Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.

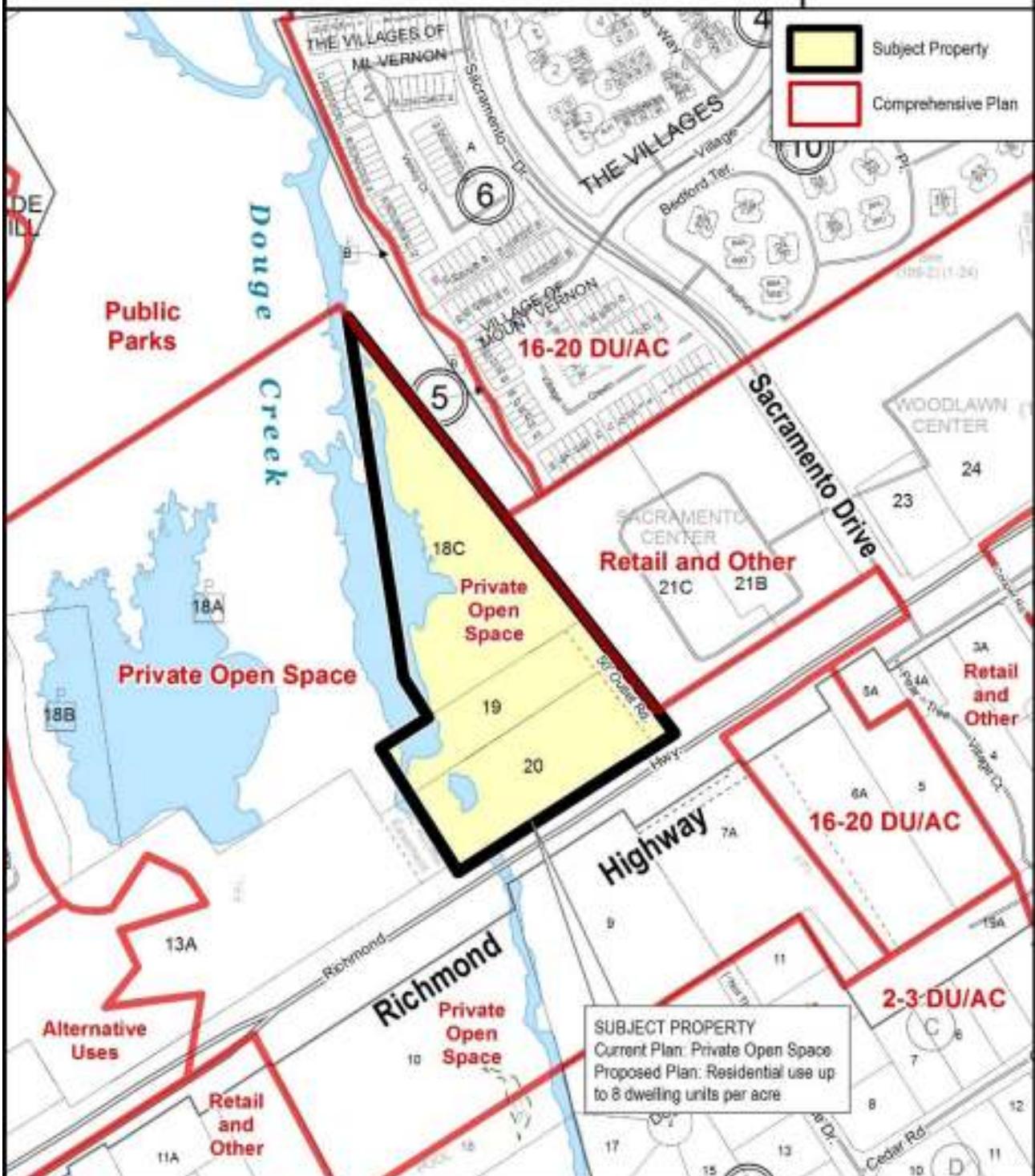


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**CURRENT PLAN AND PROPOSED CHANGE**

PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

ITEM:  
PA 2018-IV-MV2



400 FEET

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS  
PARCEL INFORMATION CURRENT TO JUNE 2018  
G:\PROJECTS\CLIPDF\OTPA\_GRAPHICS - 8800 Richmond Highway



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## **STAFF REPORT FOR PLAN AMENDMENT 2018-IV-MV2**

8800 Richmond Highway

### **BACKGROUND**

On March 6, 2018, the Board of Supervisors (Board) authorized a Comprehensive Plan amendment (amendment number 2018-IV-MV2), requesting that staff evaluate residential use at a density up to 8 dwelling units per acre (du/ac) for an approximately eight-acre area located at 8800 Richmond Highway. The subject property is currently planned for private open space. In addition to evaluating residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform with Policy Plan guidance on Environmental Quality Corridors (EQCs), including the demonstration of any circumstances that merit disturbance to the EQC, and the provision of mitigation/compensation measures resulting in a net environmental benefit to the parcels and net benefits relating to most, if not all, the objectives of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed redevelopment to be consistent with the Virginia Department of Transportation (VDOT) widening of Richmond Highway.

The subject area is comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. Two related requests are being evaluated concurrently. Rezoning and Final Development Plan application RZ/FDP 2016-MV-018 requests rezoning the property to allow for the development of approximately 43 townhomes (at the time of staff report publication). Special exception application SE 2016-MV-016 requests filling in the floodplain for residential use. A related exception application pursuant to the Chesapeake Bay Preservation Ordinance (Chapter 118 of the Fairfax County Code) is requested to permit proposed disturbances to a Resource Protection Area (RPA).

### **CHARACTER OF THE SUBJECT AREA AND SURROUNDING AREA**

The subject area is bounded by Richmond Highway to the south, the Woodlawn Community Business Center (CBC) to the east, and Dogue Creek to the west and north, as shown in Figure 1. Pedestrian and vehicular access is from Richmond Highway. Parcel 20, approximately 2.5 acres in size, fronts Richmond Highway, is zoned C-8 Highway Commercial District, and is partially developed with a welding operation. Parcels 19 and 18C, approximately 1.2 and 4.2 acres in size, respectively, are located north of Parcel 20. These parcels are zoned R-2 Residential District (two du/ac), and are vacant.

Pole Road Park is adjacent to the subject area to the north and west, and Dogue Creek runs along the shared eastern boundary of the park and the subject area. A townhouse community is adjacent to the northern edge of the Woodlawn CBC, near the eastern boundary of the subject area. A portion of the townhouse development's eastern edge is within the Dogue Creek RPA and EQC. This residential development was subject to an approved zoning application that predated the EQC Policy adopted by the Board in 1975.

The subject area abuts the Woodlawn CBC. The Woodlawn CBC was recently re-planned as part of an approximately two and a half year major corridor-wide planning effort known as Embark Richmond Highway that was adopted by the Board in March 2018. The new Comprehensive Plan envisions the creation of coordinated, transit-oriented places that highlight and strengthen the

historical and ecological attributes of the corridor; a new network of parks and open spaces; and pedestrian-scaled mixed-use development to form a series of vibrant, well-connected places that will contribute to the greater Richmond Highway community. As one of the six nodes in the Richmond Highway Corridor, the Woodlawn CBC is envisioned to evolve as a transit-oriented, mixed-use village and tourist hub served by a planned bus rapid transit (BRT) system. As described in the adopted Plan guidance, the Woodlawn CBC is planned for approximately 1,020 dwelling units, envisioned as townhomes and multifamily units, and 887,000 gross square feet of nonresidential uses, or roughly 2,614 jobs based on square feet per job conversion factors for different types of planned non-residential uses (office, retail, and hotel).

### **ADOPTED COMPREHENSIVE PLAN**

Parcels 19 and 20, the rectangular-shaped parcels, are within the Suburban Neighborhood Area adjacent to the Woodlawn CBC as shown in Figure 1, and are exempt from the 2016 Proffer Reform Bill. These parcels are planned for private open space, as they are almost entirely within the 100-year floodplain of Dogue Creek and designated as EQC and RPA, shown in Figure 2. Suburban Neighborhood Areas are part of the Richmond Highway Corridor and comprise the land located between the CBCs, which are planned as transit-oriented mixed-use nodes. Suburban Neighborhood Areas are recommended as primarily residential communities, smaller scale commercial businesses, or open spaces.

Parcel 18C, the northernmost triangular parcel, is within the MV8 Woodlawn Community Planning Sector as shown in Figure 1. The parcel is subject to the 2016 Proffer Reform Bill. Like Parcels 19 and 20, this parcel is also planned for private open space and designated as EQC and RPA, as it is almost entirely within the 100-year floodplain of Dogue Creek as shown in Figure 2.

### **PROPOSED PLAN AMENDMENT**

As stated previously, the Board authorized staff to consider residential use up to 8 du/ac for the subject area [Tax Map Parcels 109-2 ((1)) 18C, 19, and 20]. In addition to evaluating residential use for the subject area, the authorization requested that staff consider the ability to achieve full parcel consolidation and conform with Policy Plan guidance on EQCs, including the demonstration of any circumstances that merit disturbance to the EQC, and the provision of mitigation/compensation measures resulting in a net environmental benefit to the parcels and net benefits relating to most, if not all, the objectives of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed redevelopment to be consistent with the VDOT proposed widening of Richmond Highway.

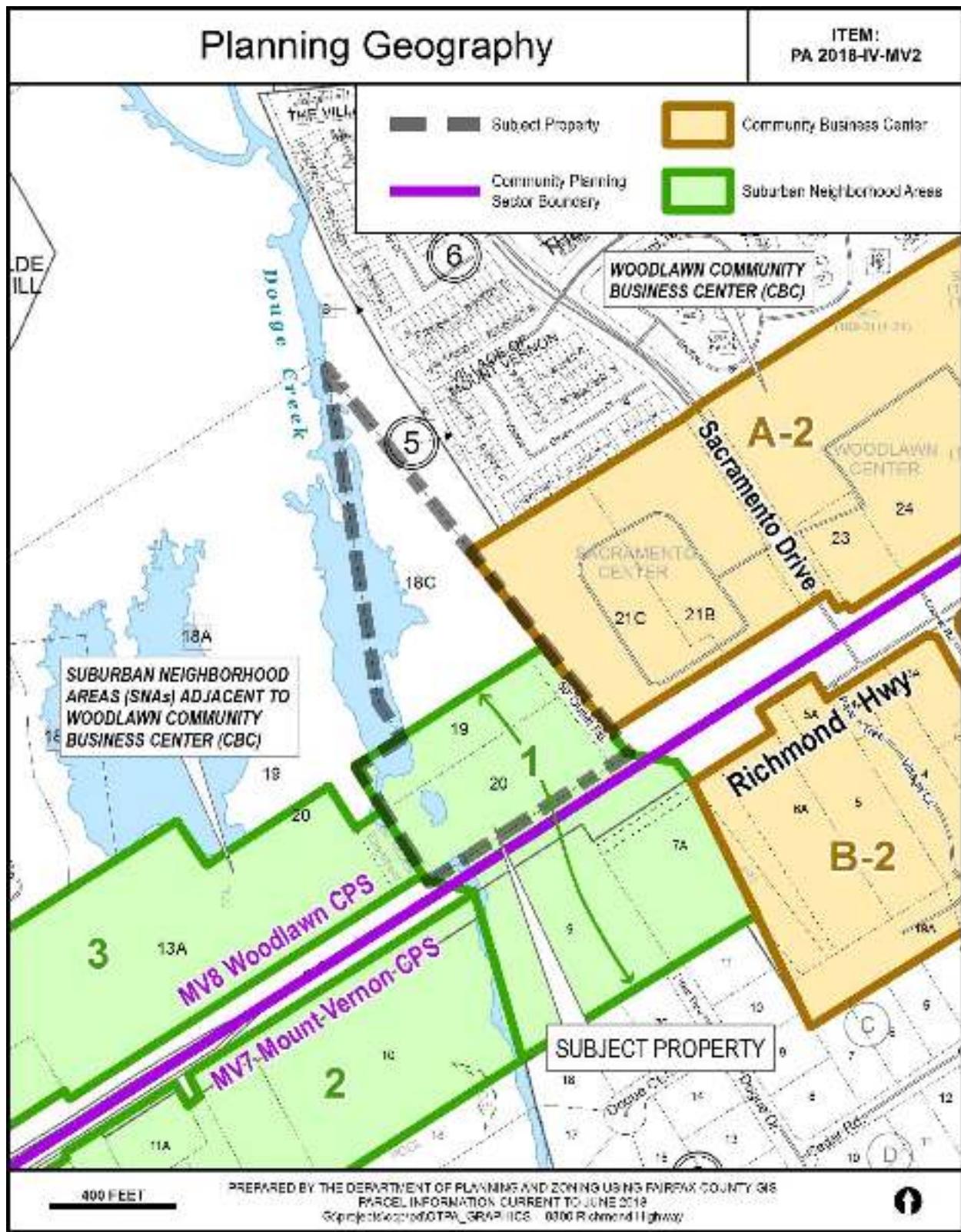


Figure 1 – Planning Geography

## 8800 Richmond Highway - Environmental Features ITEM: PA 2018-IV-MV2



### Environmental Features



FEMA 100-Year Flood Plain



Resource Protection Area (RPA)



### Problem Soils

The highlighted area contains the problematic soil characteristics, including but not limited to high shrink-swell potential, low permeability, and asbestos. It should be noted that this layer describes the general location of the problematic soils. Therefore, some areas may not have problematic soils even though they fall within the bounds of the classification. A geotechnical investigation should be conducted prior to development to ensure proper mitigation.

Prepared by CPZ 2018

Demand Path: C:\Users\jgarcia\OneDrive\OTPK\_OV\PH\CS\18\_Jun\2018-IV-MV2\8800 Richmond Highway\2018-IV-MV2\8800 Richmond Highway\ENVIRONMENTAL FEATURES.mxd

Figure 2 – 100-Year Floodplain and Resource Protection Area (RPA)

Citations of Comprehensive Plan recommendations applicable to the proposed Plan amendment are included below.

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, page 1:

**“Environmental Protection** - The amount and distribution of population density and land uses in Fairfax County should be consistent with environmental constraints inherent in the need to preserve natural resources and to meet or exceed federal, state and local standards for water quality, ambient air quality and other environmental standards. Development in Fairfax County should be sensitive to the natural setting, in order to prevent degradation of the county’s natural environment.

**Open Space** - Fairfax County should support the conservation of appropriate land areas in a natural state to preserve, protect and enhance stream valleys, meadows, woodlands, wetlands, farmland, and plant and animal life. Small areas of open space should also be preserved in already congested and developed areas for passive neighborhood uses, visual relief, scenic value, and screening and buffering purposes.”

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, page 13:

**“Objective 7: Minimize the exposure of new development to the potential of flood impacts.**

Policy a: Prohibit new residential structures within flood impact hazard areas.”

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, pages 14 -17:

**“Objective 9: Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.**

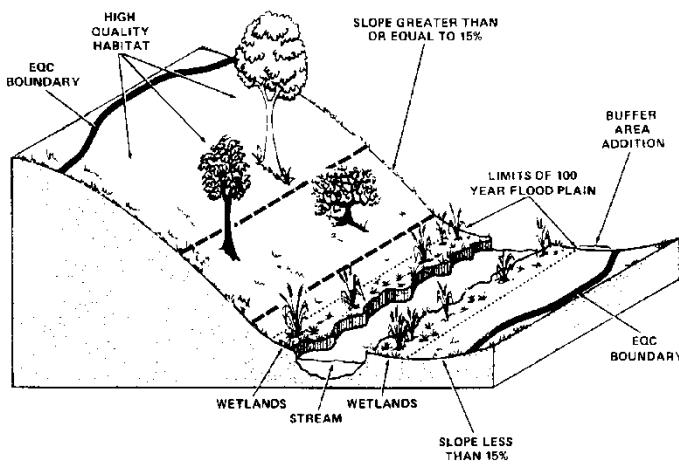
Policy a: Identify, protect and restore an Environmental Quality Corridor system (EQC)...

Lands may be included within the EQC system if they can achieve any of the following purposes:

- Habitat Quality: The land has a desirable or scarce habitat type, or one could be readily restored, or the land hosts a species of special interest. This may include: habitat for species that have been identified by state or federal agencies as being rare, threatened or endangered; rare vegetative communities; unfragmented vegetated areas that are large enough to support interior forest dwelling species; and aquatic and wetland breeding habitats (i.e., seeps, vernal pools) that are connected to and in close proximity to other EQC areas.

- Connectivity: This segment of open space could become a part of a corridor to facilitate the movement of wildlife and/or conserve biodiversity. This may include natural corridors that are wide enough to facilitate wildlife movement and/or the transfer of genetic material between core habitat areas.
- Hydrology/Stream Buffering/Stream Protection: The land provides, or could provide, protection to one or more streams through: the provision of shade; vegetative stabilization of stream banks; moderation of sheet flow stormwater runoff velocities and volumes; trapping of pollutants from stormwater runoff and/or flood waters; flood control through temporary storage of flood waters and dissipation of stream energy; separation of potential pollution sources from streams; accommodation of stream channel evolution/migration; and protection of steeply sloping areas near streams from denudation.
- Pollution Reduction Capabilities: Preservation of this land would result in significant pollutant reductions. Water pollution, for example, may be reduced through: trapping of nutrients, sediment and/or other pollutants from runoff from adjacent areas; trapping of nutrients, sediment and/or other pollutants from flood waters; protection of highly erodible soils and/or steeply sloping areas from denudation; and/or separation of potential pollution sources from streams.

The core of the EQC system will be the county's stream valleys. Additions to the stream valleys should be selected to augment the habitats and buffers provided by the stream valleys, and to add representative elements of the landscapes that are not represented within stream valleys. The stream valley component of the EQC system shall include the following elements:



A TYPICAL  
ENVIRONMENTAL QUALITY CORRIDOR

*Source: Fairfax County Office of Comprehensive Planning*

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Modifications to the boundaries so delineated may be appropriate if the area designated does not benefit any of the EQC purposes as described above. In addition, some disturbances that serve a public purpose such as unavoidable public infrastructure easements and rights of way may be appropriate. Disturbances for access roads should not be supported unless there are no viable alternatives to providing access to a buildable portion of a site or adjacent parcel. The above disturbances should be minimized and occur perpendicular to the corridor's alignment, if practical, and disturbed areas should be restored to the greatest extent possible

...

The following efforts within EQCs support the EQC policy and should be encouraged:

- Stream stabilization and restoration efforts where such efforts are needed to improve the ecological conditions of degraded streams. Natural channel design methods should be applied to the greatest extent possible and native species of vegetation should be used.
- Replanting efforts in EQCs that would restore or enhance the environmental values of areas that have been subject to clearing; native species of vegetation should be applied.
- Wetland and floodplain restoration efforts.
- Removal of non-native invasive species of vegetation from EQCs to the extent that such efforts would not be in conflict with county ordinances; such efforts should be pursued in a manner that is least disruptive to the EQCs.

Other disturbances to EQCs should only be considered in extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits relating to most, if not all, of the EQC purposes listed above that are applicable to the proposed disturbances.

Preservation should be achieved through dedication to the Fairfax County Park Authority, if such dedication is in the public interest. Otherwise, EQC land should remain in private ownership in separate undeveloped lots with appropriate commitments for preservation. The use of protective easements as a means of preservation should be considered.

..."

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Introduction, Guiding Planning Principles 6 and 7, Pages 8-9:

" 6.) Maintain the primarily residential nature of stable communities surrounding the CBCs by:

- a. Planning for primarily residential, institutional and open space uses in areas outside and between the CBCs.
- b. Providing a variety of residential housing types within the CBCs to preserve the stability of lower density neighborhoods.
- c. Supporting consolidation of land along Richmond Highway with parcels in the surrounding residential neighborhoods only when this type of consolidation is necessary to provide for site layouts that function in a well-designed, efficient manner to support reasonable and appropriate redevelopment along the corridor and protect unconsolidated parcels.

7.) Preserve, enhance, and restore the environment by:

- a. Minimizing the impact of development on the natural environment, including water quality and the ecological conditions of streams.
- b. Encouraging development approaches that serve to reduce impervious surfaces and achieve improved control over stormwater runoff ...
- c. Restoring streams and riparian areas where possible and practical.

..."

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Corridor-wide Guidelines, Environment, Page 17:

#### "Residential and Other Noise-Sensitive Uses"

Where residential or other noise sensitive uses are proposed near Richmond Highway, such proposals should only be considered with the provision of a noise study during the review of the development, commitments to noise mitigation measures, and, potentially, commitments to the provision of disclosure statements and a post-development noise study. The noise study during development review should clearly define the noise levels impacting the proposed uses as a measure of DNL dBA; should include noise contours and/or noise impacts at each façade of each affected building with current noise levels and projected noise levels based on a minimum 20-year traffic volume projection for the roadway and for bus rapid transit and/or Metrorail, as may be applicable; and,

should identify differing noise levels that may affect building facades at different elevations.

In areas where projected noise impacts at affected building facades will exceed DNL 75 dBA, design strategies should be pursued where feasible, consistent with other design goals, such that exposures of facades for noise-sensitive areas of residences will be minimized. Where such exposures cannot be avoided, and for dwelling units for which outdoor spaces including balconies are projected to be exposed to noise levels that exceed DNL 65 dBA, disclosure statements should be provided to potentially affected residents and users within the impacted uses or units. The disclosure statements should clearly identify the mitigated and unmitigated noise levels for interior space and the noise levels for any affected balconies, in addition to noise mitigation for interior space and outdoor recreational areas. When feasible, post-development noise studies should be conducted to support evaluations of the effectiveness of noise mitigation measures.”

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Suburban Neighborhood Areas, Suburban Neighborhood Areas introduction, page 165:

“...As redevelopment occurs in the Richmond Highway Corridor Area, projects should demonstrate compatible and effective transitions from the high intensity CBCs to the lower intensity SNAs; provide appropriately scaled and logical multimodal connections between the CBCs and SNAs; and ensure the character of new development and redevelopment in the SNAs is complementary to the adjacent CBCs and SNAs, where applicable. In addition to the recommendations above, the Guiding Planning Principles and Corridor-wide Guidelines should be consulted in the review of all development proposals in the SNAs. In some cases, site-specific recommendations may differ from and supersede these recommendations.”

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Suburban Neighborhood Areas, Suburban Neighborhood Areas adjacent to Woodlawn CBC, Recommendation 1, page 181:

“1. Tax Map Parcels 109-2((2))7A and 9 and Tax Map Parcels 109-2((1)) 19 and 20 on both sides of Richmond Highway are predominantly floodplain and planned for open space.”

## RICHMOND HIGHWAY CORRIDOR IMPROVEMENTS PROJECT

The subject area is partially within the limits of the VDOT Richmond Highway Corridor Improvements Project as shown in Figure 3. The project will widen Richmond Highway from four to six lanes; add separate bicycle lanes and sidewalks on both sides of the roadway; and reserve a median to accommodate Fairfax County’s proposed BRT system. As part of the project, VDOT is recommending replacement of the existing bridge over Dogue Creek with a higher, multi-span bridge that would accommodate the widened roadway. The bridge is intended to convey the 100-year flood under it without overtopping the road. Existing culverts are proposed to be removed, allowing for the daylighting of Dogue Creek under the bridge. The bridge is just south of subject area.



Figure 3 – Proposed VDOT Richmond Highway Corridor Improvements

*NOTE: The Interactive Map was accessed on June 29, 2018. This image does not show all of the proposed improvements. For any future updates, consult [http://www.virginiadot.org/projects/northern\\_virginia/richmond\\_highway\\_interactive\\_map.asp](http://www.virginiadot.org/projects/northern_virginia/richmond_highway_interactive_map.asp)*

Staff has identified a number of items for further information gathering and analysis related to the bridge and existing circumstances of Dogue Creek, to determine how the bridge may be implemented and function as intended by VDOT. Specifically, additional analysis is needed regarding the alignment of Dogue Creek and related erosion concerns. Side-by-side images of the 1955 approved plat for the private recreation club and recent water features on or near the subject property are shown in Figure 4, and offer visualizations to aid in the following creek flow path, road and streambank erosion, and channel stabilization discussion.

Dogue Creek once flowed through a straight, north-south path as generally reflected in the approved plat on the left side of Figure 4. At a later time, an alternative channel was created to the west, which resulted in most of the flow of the creek being diverted to this newer channel. The north-south flow path at one time was impeded by a mechanism near the pond (the pond is shown on the right image) that prevented the north-south flow; more recently, the mechanism was breached and the flow path was restored. The western channel is circuitous and makes an abrupt 90 degree turn along the roadbed of Richmond Highway, which does not align with VDOT's culvert or the stream channel downstream of Richmond Highway. This western channel condition has resulted in the continual erosion of the streambank and roadbed along and in the vicinity of the subject property. Note the figures do not reflect the actual width of the roadway in relation to stream.

There has been a preliminary need identified to re-establish a straightened channel that conveys the flow into the culvert under Richmond Highway, and to stabilize the channel to effectively convey flows and allow for ecosystem functions. Even if the culvert is removed with the proposed bridge project, erosion of the streambank at the base of the bridge from the western channel would

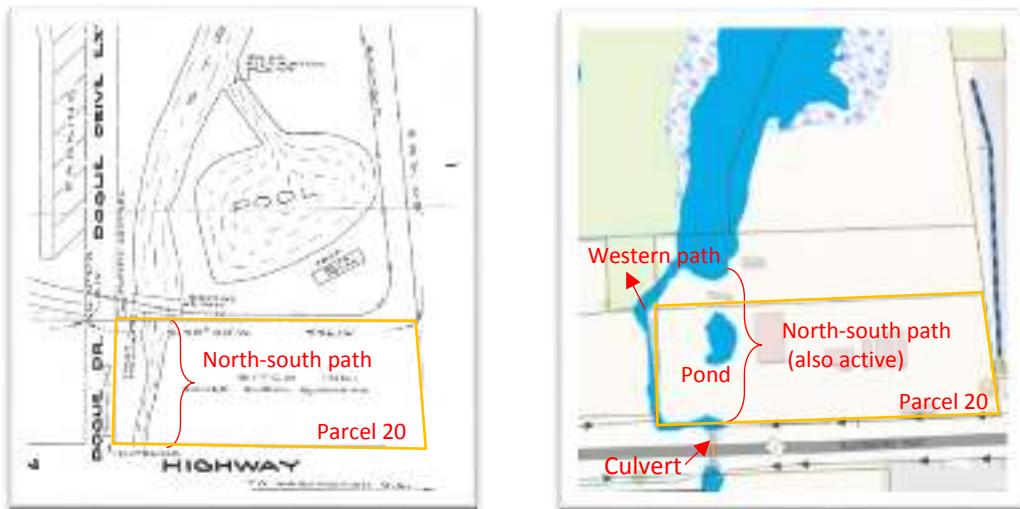


Figure 4 – Part of Approved Plat, 1955 (left) Dogue Creek and related features, researched 06/2018 (right)

continue to be problematic due to the 90 degree turn at Richmond Highway. Compounding concerns about erosion near and along Richmond Highway are concerns about additional erosion of the stream channel a short distance upstream, in an area that until recently had been ponded. Large volumes of sediment were deposited in the formerly ponded area. Any additional destabilization of this area could result in the movement of much of this sediment downstream, and stream channel erosion progressing upstream.

It is staff's view that more discussions with VDOT about the interface between Dogue Creek and the new bridge are needed to fully address the Board's request to determine whether redevelopment could be consistent with the VDOT Richmond Highway Corridor Improvements project. Improving the stability of the stream channel is also an important consideration to mitigate existing conditions and protect new infrastructure.

The estimated schedule for the VDOT Corridor Improvements Project includes a design public hearing in the fall of 2018 and design approval in the winter of 2018/19. A number of additional milestones are identified before construction begins in the Spring of 2023. For the most recent information, see the VDOT project website at [http://www.virginiadot.org/projects/northernvirginia/richmond\\_highway.asp](http://www.virginiadot.org/projects/northernvirginia/richmond_highway.asp).

## ANALYSIS

### ***Environment***

#### **Terms and Definitions**

As previously noted, the subject area is almost entirely within the 100-year floodplain of Dogue Creek as well as the associated EQC and RPA. The 100-year floodplain is the flat area adjacent to a main stream channel that has a one percent (1%) chance of being covered by a flood event in any

given year. The majority of the subject property is also a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area. Special Flood Hazard Areas are defined as high risk areas identified by FEMA Flood Insurance Program maps.<sup>1</sup> Floodplain management regulations must be enforced and mandatory purchase of flood insurance applies for Special Flood Hazard Areas.<sup>2</sup>

RPs are defined and delineated under the Chesapeake Bay Preservation Ordinance, which was adopted by the county per the requirements of Virginia's Chesapeake Bay Preservation Act; this Act is applicable to all "Tidewater" localities in Virginia. These are generally localities that have land east of I-95, but also cities and towns surrounded by such localities (e.g. Fairfax City and the towns of Vienna, Clifton and Herndon). RPs are corridors of environmentally sensitive land located alongside or near the shorelines of streams, rivers, and other waterways. Most types of new development are prohibited in RPs. Some disturbances such as infrastructure improvements may be permitted, but most types of land disturbance in RPs must be granted through an RP exception. In Fairfax County, exceptions may be approved by the Board if the proposed disturbance is part of a zoning request. Redevelopment is permitted within RPs if there is no increase in the amount of impervious cover and there is no further encroachment within the RP.

EQCs are environmentally-sensitive lands that are identified and recommended for protection and restoration through the EQC Policy in the Comprehensive Plan. Areas are recommended for inclusion within EQCs based on the criteria as provided in the policy, and the ability to achieve any of the stated purposes of EQCs including habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollutant reduction. The EQC policy also supports the restoration of degraded areas that would otherwise meet the EQC designation criteria. These networks of the county's natural landscapes can also provide passive recreation opportunities, an important function that protects and enriches the quality of life for residents of Fairfax County. There are no regulatory requirements for the protection of EQCs; however, the preservation of EQCs is long-standing Board-adopted policy typically achieved through the development review process, acquisition of parkland, and the donation of easements.

#### Comparison with EQC Policy

The Board specifically requested that staff evaluate the amendment within the context of the Policy Plan guidance addressing EQCs, which includes guidance for considering disturbances to EQCs. The policy recommends that, with some specific exceptions, disturbances to EQCs should only be considered in "*extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits related to most, if not all, of the EQC purposes that are applicable to the proposed disturbances.*" In staff's view, there is not the presence of such an "extraordinary circumstance" which warrants re-planning land that is floodplain, RP, and EQC for residential use. Further, at the time of staff report publication, there was not sufficient evidence that most of the applicable purposes of the EQC (in this case, habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities) would receive a net benefit, or

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<sup>1</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

<sup>2</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

that mitigation/compensation measures demonstrating a clear and substantial net environmental benefit would be provided to offset a residential development at a density up to 8 du/ac.

#### *History of EQC Policy Including EQC Disturbance Considerations*

Given the proposed disturbance to the EQC, a summary of the history and purpose of the adopted EQC policy is provided in this section.

The guidance recommending the protection of EQCs was initially adopted in the 1975 Edition of the Comprehensive Plan and has been refined since that time. The guidance regarding proposed disturbances to EQCs was adopted by the Board in 2010 in response to questions raised in 2009 in conjunction with the approval of a zoning application for the Aerospace Corporation. The application identified the filling of two headwater stream valleys along with a comprehensive EQC restoration effort. At that time, Policy Plan guidance did not account for the consideration of such trade-offs. Therefore, after approving the application, the Board requested a thorough review of the EQC policy as it relates to proposals for disturbance to EQCs. The issue was referred by the Planning Commission to its Environment Committee.

In contemplating circumstances under which such EQC trade-offs should be considered, the Planning Commission's Environment Committee stressed that EQC disturbances should only be supported in extraordinary circumstances; i.e., the consideration of EQC disturbances and possible trade-offs should not be routinely or typically applied. The Planning Commission supported the Environment Committee's proposal to establish the "extraordinary circumstance" benchmark, and the Board adopted this guidance. The term "extraordinary circumstance" was not defined, recognizing the different circumstances could arise among applications, and this guidance would be considered on a case-by-case basis.

Since the 2010 adoption of the Policy Plan guidance addressing disturbances to EQCs, there have been two instances where such disturbances were approved when applying the guidance. In 2015, the Board of Supervisors and BZA approved zoning applications from Fairfax Water and Vulcan Quarry. The ability to reconfigure and convert a portion of the quarry was approved in order to support the long term water supply storage needs of Fairfax County and the region. The quarry would ultimately be able to store approximately 17 billion gallons of water upon completion of the quarry expansion around the year 2085. A small stream valley on the Vulcan Quarry property was proposed to be incorporated within the expanded quarry, and as part of the review of the zoning applications, significant analysis was conducted to understand the impacts of diverting the stream's flow and compensating for its loss. A development condition was included that resulted in Vulcan Quarry preparing and submitting an EQC compensation plan.

The other instance was a Proffered Condition Amendment for Circle Towers in 2011 that included a request for new vehicular access that would result in crossing the RPA and EQC at the western edge of the site. In this case, consideration of the EQC crossing was considered an extraordinary circumstance because of external limitations to proposed improvements for the two existing access points to Circle Towers. Additionally, the applicant had made extensive efforts to provide improved accessibility and circulation through other alternatives. In order to mitigate impacts for the proposed EQC crossing, the applicant both designed a wetland area and habitat to be restored in the existing EQC, and also designed the crossing in an environmentally sensitive manner as a

bridge spanning the EQC rather than a road built on a culvert or filled area. These efforts offset and mitigated the encroachment and impact of the EQC/RPA crossing, and were ultimately determined to provide a net environmental benefit. At the time of staff report publication, the applicant had not pursued redevelopment and the associated mitigations that were part of the approved Proffered Condition Amendment.

#### New Residential Lots and Other Development in Floodplains

As stated previously, the Board's authorization directs staff to consider the effect of development within the EQC, which is mostly coterminous with the 100-year floodplain and RPA. The Policy Plan recommends that new residential structures within flood impact hazard areas be prohibited. Staff is not aware of circumstances where new residential lots have been approved within 100-year floodplains, and the approval of this amendment could be regarded as an example for similar proposals elsewhere requesting new residential lots within floodplains. Further, unless there is a clear demonstration that the circumstances warranting consideration of this amendment are truly extraordinary and not something that could be routinely applied to degraded EQCs elsewhere in the county, the approval of this amendment could have the effect of generating increased development pressure for land use activities that propose disturbances to EQCs.

Another consideration is the potential for impacts to Fairfax County's rating in the FEMA National Flood Insurance Community Rating System. The Community Rating System is a voluntary program that encourages communities to enact floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) standards. Under the Community Rating System, communities may benefit from discounted flood insurance premium rates as a result of community activities that reduce flood losses, facilitate accurate insurance ratings, and promote awareness of flood insurance. Each year, Fairfax County submits an annual recertification. Adjustments could be made to the rating based on a community's mitigation and floodplain management activities.<sup>3</sup> Fairfax County has participated in the program since 1993, and is one of two jurisdictions in Virginia with a rating of Class 6, meaning that property owners can obtain flood insurance at a discount.<sup>4</sup> Comprehensive Plan guidance recommending new development in floodplains, that may be looked to as an example when considering future land disturbance in floodplains, may negatively impact to the county's rating.

#### Noise Considerations

The subject area will continue to be affected by high noise levels generated by traffic on Richmond Highway. VDOT's proposed replacement of the bridge over Dogue Creek with a higher structure may complicate the consideration of available noise mitigation strategies for residential development.

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<sup>3</sup> FEMA Community Rating System Fact Sheet, June 2017. Accessed June 7, 2018. <https://www.fema.gov/media-library-data/1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP CRS Fact Sheet 2017 508OK.pdf>

<sup>4</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

## ***Land Use***

### **Embark Plan Amendment and Revitalization Considerations**

The Embark Richmond Highway planning process resulted in the adoption of corridor-wide guidance that was the outcome of extensive community and stakeholder engagement and refinement based on collective input. One of the overarching principles of the Plan guidance is focusing revitalization and redevelopment in the corridor's nodes (the CBCs), an idea that is also conveyed in the Comprehensive Plan's Concept for Future Development. The corridor-wide guidelines for the Richmond Highway Corridor recommend preserving, enhancing, and restoring the environment by minimizing the impact of development on the natural environment including impacts to water quality and the ecological conditions of streams. The Suburban Neighborhood Areas were recommended to retain their adopted land uses and intensities. Parcel 18C falls outside of the Richmond Highway Corridor and was not included in the Embark planning study.

Specific to the Woodlawn area, the possibility of using the environmental features of Dogue Creek as an amenity for future development was recommended as early as the 1984 Edition of the Comprehensive Plan, which states that “the environmental characteristics of the area [the Dogue Creek EQC] should serve not only as a tool for shaping growth into nodes, but should provide an amenity to all future development in the corridor.” The Embark planning effort was able to, more broadly, bring this guidance to the forefront and recognize that highlighting environmental features could also support revitalization efforts through a new “ecological spine” environmental concept in certain CBCs. As redevelopment occurs, previously impacted streams and waterways are recommended to be improved by removing conveyance pipes and impervious surfaces, restoring environmental functions, and creating passive recreation uses that would not negatively impact the newly daylighted streams. The proposed Plan amendment is counter to the spirit of ecological spines as development that could occur under the proposed amendment would preclude the ability to restore environmental functions within the EQC areas that would be developed. The potential for future restoration of these areas would remain under the current recommendation for private open space. One purpose of the EQC system is to preserve its pollution reduction capabilities. Residential use could result in the introduction of a new level of activity that generates pollutants that would not likely be produced to the same degree through an open space use (e.g., runoff of fertilizers and pesticides used for lawn management).

The subject property was subject to extensive disturbance in the past. In 1955, an outdoor amusement center was approved by the Board of Zoning Appeals (BZA) for Parcel 20, and a private recreation club was approved several months later by the BZA for the remainder of the subject area and the adjoining property to the west. Light industrial uses and related businesses replaced the amusement center beginning in the 1960s and continued for approximately five decades, primarily on Parcels 19 and 20. The uses included vehicle repair; a storage yard for inoperable vehicles, trailers, tires, boats, and construction equipment; and landscaping services. A majority of the uses required the submission and approval of special exception applications, site plans, and/or permits which are not on record with the county. In 2015-2016, the Fairfax County Department of Code Compliance (DCC) conducted inspections that revealed ongoing violations of Zoning Ordinance provisions. The Notice of Violations issued in September 2016 was appealed by the property owner. On June 14, 2017, the BZA upheld the Zoning Administrator regarding the Notice of Violations. Subsequently, the violations were addressed by removing the structures and

the storage yard that were in violation of the Zoning Ordinance provisions. One permitted use, a welding operation, remains on a portion of Parcel 20.

Staff recognizes that the history of uses may generate interest in accommodating some redevelopment. Where appropriate, the county supports redevelopment of uses that could be viewed as inconsistent with revitalization goals. On this site, revitalization considerations are secondary to the many environmental concerns, including the inability to achieve adopted Plan policies for EQCs, EQC disturbances, and recently adopted Richmond Highway Corridor guidance, and the potential consequences of recommending residential use in a floodplain.

#### Parcel Consolidation

The subject property is comprised of an eight-acre consolidated area. One of the benefits of parcel consolidation is the ability to configure development in a manner that minimizes negative impacts, such as environmental disturbance.

#### *Transportation*

An evaluation of trip generation was conducted based on the rezoning applicant's proposal for 43 townhomes (5-6 du/ac) and the site design at the time of staff report publication. The Comprehensive Plan guidance for the Richmond Highway Corridor recommends multimodal connections between the CBCs and SNAs, where appropriate. A grid network to accommodate vehicles, pedestrians, and bicyclists is recommended in the Woodlawn CBC, adjacent to the subject area. The applicant's rezoning application proposes a new road through their site. If the Plan amendment is adopted and the subject area is developed, consideration should be given to configuring the new road in a manner that could connect with the other half of the roadway that would be provided when the Sacramento Center Shopping Center redevelops, provided that analysis is done that weighs the benefits and disadvantages of encroaching into the RPA between the Woodlawn CBC and the subject property with the transportation connectivity goals for the corridor.

An estimated 104 daily vehicular trips are generated by existing uses, and this would increase to 309 trips. This results in an increase of 205 daily trips when compared to the existing uses. A total of 26 morning peak hour trips and 72 afternoon peak hour trips are estimated under a townhouse scenario, this is 27 less vehicular trips during the morning peak hours and 7 less trips during the afternoon peak hours compared with the existing uses. There are currently no trips generated by the planned private open space use; therefore the net increase compared to the adopted Comprehensive Plan is 309 daily trips, 53 morning peak hour trips, and 72 afternoon peak hour trips. The increased number of vehicular trips is not anticipated to cause significant impacts to the transportation network provided that appropriate mitigation is addressed as part of the rezoning review process.

The Board authorization indicates the need for potential development to be consistent with the VDOT Richmond Highway Corridor Improvements Project. The transit, roadway, bicycle, and pedestrian improvements on Richmond Highway will require right-of-way from the subject area. The right-of-way needs, timing of any proposed land development activities, and relevant site design considerations should be coordinated with VDOT to avert potential conflicts with the corridor improvements project.

### **Public Schools**

The schools analysis evaluated the potential impact to the public schools serving the subject area under the maximum residential density under consideration (8 du/ac). Based on 64 single-family attached residential units, a total of 30 students are estimated using the most current countywide student yield ratio at the time of the analysis, as shown in Figure 5. The schools that serve the study area are Mount Vernon High School, Whitman Middle School, and Washington Mill Elementary School. Based on school capacity as of January 2018, Mount Vernon and Whitman schools are under capacity (at 84% and 79% of their capacity, respectively) and Washington Mill is over capacity (at 116% percent). The capacity and projected enrolled is based on the adopted Fiscal Year 2019-2023 Capital Improvements Program (CIP). The CIP identifies a number of potential solutions to alleviate current and projected school capacity deficits, including program changes, capacity enhancement through a modular or building addition, and boundary adjustment with schools having a capacity surplus. Any options chosen to address school capacity would be discussed through a public process with stakeholder and community engagement, in accordance with School Board Policies and Regulations.

School Level	Proposed Student Yield
High	9
Middle	4
Elementary	17

Figure 5: Student Yield by School Level

### **Parks & Recreation**

The parks analysis evaluated 64 single-family attached residential units to estimate the greatest potential impact to the parks serving the subject area under the maximum residential density under consideration (8 du/ac). The additional residents from this level of development would generate the need for an additional 0.92 acres of local park space and 2.39 acres of district/countywide park space, using the average household size of a single-family attached unit for the Mount Vernon Planning District (2.93 people/single-family attached unit). Residential projects are recommended to offset impacts to parkland and park facilities for which there are adopted service level standards through monetary or “in-kind” contributions to serve the corridor.

As mentioned previously, Dogue Creek runs along the shared eastern boundary of Pole Road Park and the subject area. If the amendment is approved and development occurs, any development should provide for the treatment of invasive species and use only native plants for landscaping, seed mixes, and erosion control. Due to the extent of the floodplain on the subject area and adjoining park, seeds could be more easily transported and spread to the adjoining parkland, therefore the use of native species and treatment of invasive species is of particular importance.

Due to the previous disturbance on Parcels 19 and 20, there is a low probability of significant cultural resources on this portion of the site and additional archaeological study is not warranted. Parcel 18C has less disturbance, therefore a Phase I archaeological survey, followed by Phase II archaeological testing and Phase III archaeological data recovery, as appropriate, should be considered.

### ***Heritage Resources***

The Comprehensive Plan guidance for the Richmond Highway Corridor notes the importance of considering a development's potential impacts to resources in two historic overlay districts (HOD) proximate to the corridor, Woodlawn and Huntley. A portion of the subject area is within the Woodlawn Historic Overlay District (HOD). Should the amendment be approved and development pursued, the design of the proposed development should be sensitive to the heritage resources within the Woodlawn HOD, including historic roadways. If potential impacts to the viewsheds from Huntley or Woodlawn are identified, mitigation should be pursued through modified building height, the use of non-reflective building materials, and/or other approaches.

### **CONCLUSION**

The proposed amendment generates considerable concerns when evaluated within the context of three main considerations expressed in the Board's authorization: residential use; Policy Plan guidance for EQCs and disturbances to EQCs; and consistency with VDOT's Richmond Highway project.

In terms of the appropriateness of residential use on the subject property, new residential development that significantly encroaches into a floodplain and EQC and would require filling in a floodplain is contrary to long-established county policy and newly adopted Plan recommendations for the Richmond Highway Corridor. There is also concern about the potential for precedent with countywide implications; unless there is a clear demonstration that the circumstances warranting consideration of this amendment are truly extraordinary and not something that could be routinely applied elsewhere in the county, the approval of this amendment could have the effect of generating increased development pressure for land use activities that propose disturbances to EQCs.

As for the EQC policy, all of the stated purposes of EQCs are applicable to this site (habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities). Under the recommendation for private open space, there is potential to restore those EQC functions. The current Plan reflects the inherent environmental value of the subject area (EQC, RPA, and floodplain). Staff recognizes that the history of uses and extent of previous disturbance may generate interest in accommodating some redevelopment. However, establishing new residential lots within the floodplain is not the appropriate course of action to achieve the desired outcome. A clear and net substantial environmental benefit and a net benefit to the applicable purposes of the EQC would not be gained from re-planning the subject property from open space to residential use at density up to 8 du/ac, and is also of concern.

Lastly, in terms of consistency with the Richmond Highway Corridor Improvements Project, Dogue Creek on and near the subject area has ongoing streambank erosion and channel stability issues. The potential for the release of accumulated sediment furthers concerns about the unstable stream condition. Additional discussions about these outstanding concerns and an identification of a preferred course of action are critical in order to assess whether redevelopment could be consistent with the bridge and related aspects of VDOT's efforts.

## **RECOMMENDATION**

It is staff's view that the amendment creates conflicts with established Comprehensive Plan policy and would create adverse precedent relating to new residential development within floodplains. Adequately addressing the concerns regarding the stability of the Dogue Creek channel, erosion, and VDOT's Richmond Highway project requires further coordination and discussion. Staff does not support this amendment.



**PROPOSED  
COMPREHENSIVE PLAN  
AMENDMENT ADDENDUM**

**ITEM:** PA 2018-IV-MV2  
 Original Staff Report published July 5, 2018  
 Date of Addendum: October 3, 2018

**GENERAL LOCATION:** North of Richmond Highway, west of Sacramento Center, east of Pole Road Park

**SUPERVISOR DISTRICT:** Mount Vernon

**PLANNING AREA:** Area IV

**PLANNING DISTRICT:**

Mount Vernon Planning District

**SUB-DISTRICT DESIGNATION:**

Richmond Highway Corridor Area,  
 MV8 Woodlawn Community Planning Sector

**PARCEL LOCATION:** 109-2 ((1)) 18C, 19, and 20

For additional information about this amendment call (703) 324-1380.

**PLANNING COMMISSION:**

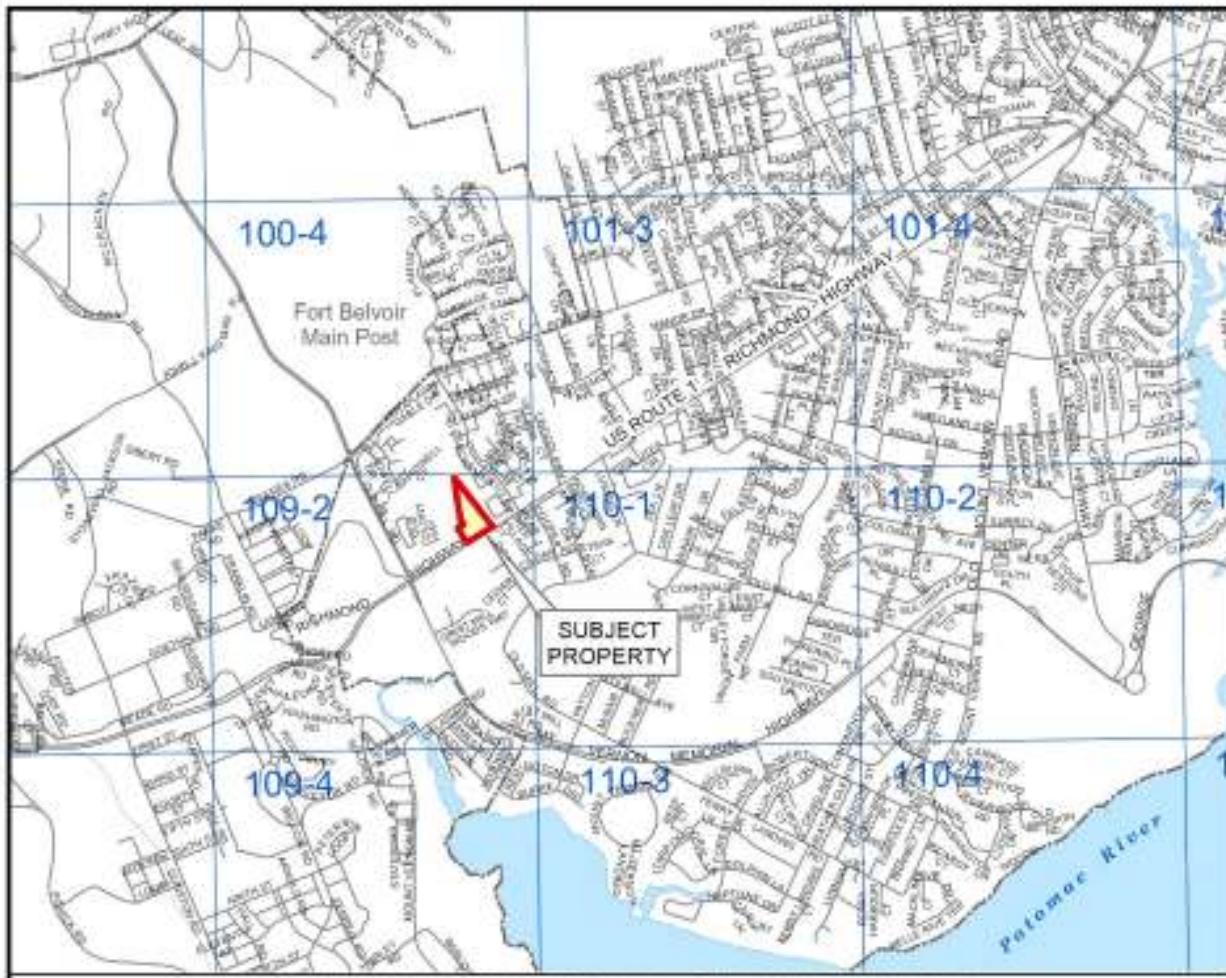
Public meeting held Thursday,  
 July 19, 2018 @ 7:30 PM

Public hearing scheduled for Wednesday,  
 October 24, 2018 @ 7:30 PM

**BOARD OF SUPERVISORS PUBLIC HEARING:**  
 Tuesday, November 20, 2018 @ 4:30 PM

**PLANNING STAFF DOES NOT RECOMMEND  
THIS ITEM FOR PLAN AMENDMENT**

Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.



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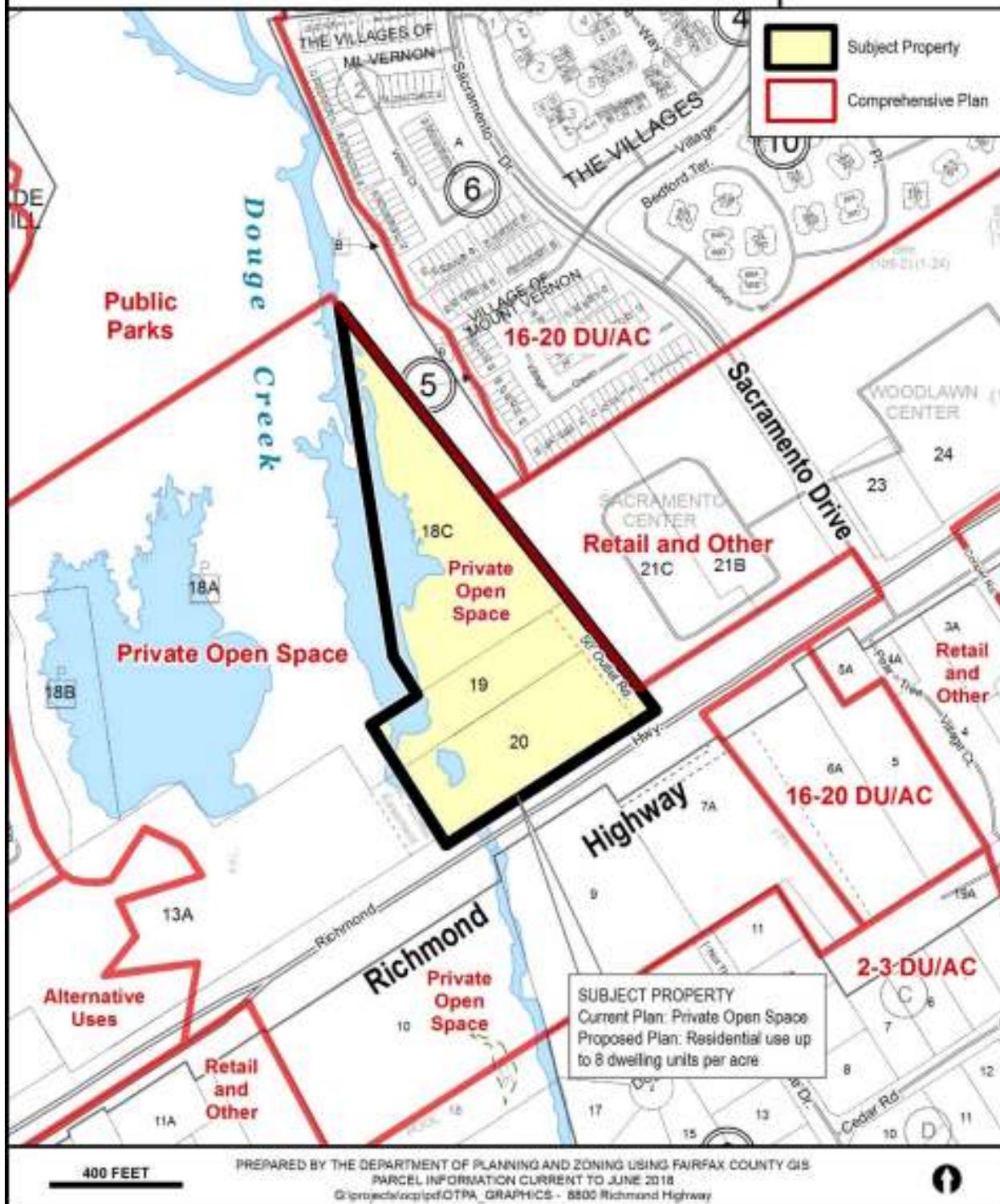
PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS  
 8800 Richmond Highway



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**CURRENT PLAN AND PROPOSED CHANGE**  
PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR  
SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

ITEM:  
**PA 2018-IV-MV2**



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**PLAN AMENDMENT 2018-IV-MV2**  
**STAFF REPORT ADDENDUM**  
**Published October 3, 2018**

The staff report addendum addresses issues and requests raised at the July 19, 2018 Planning Commission meeting for proposed Comprehensive Plan amendment 2018-IV-MV2 (8800 Richmond Highway), as well as additional requests and considerations raised subsequent to the meeting. The staff report published on July 5, 2018 can be found at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy). The Plan amendment is concurrently under review with Rezoning and Final Development Plan application RZ/FDP 2016-MV-018 and Special Exception application SE 2016-MV-016. Consult [ldsnet.fairfaxcounty.gov/ldsnet/CurrentInProcessBOS.aspx](http://ldsnet.fairfaxcounty.gov/ldsnet/CurrentInProcessBOS.aspx) for information on these applications.

## **BACKGROUND**

### *Plan Amendment Authorization*

On March 6, 2018, the Board of Supervisors (Board) authorized consideration of a Plan amendment for an approximately eight-acre area located at 8800 Richmond Highway, as shown on the maps on the previous pages. The Board requested that staff evaluate residential use at a density up to 8 du/ac for the subject property, which is planned for private open space. In addition to evaluating residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform with Policy Plan guidance for Environmental Quality Corridors (EQCs), including the demonstration of any circumstances that merit disturbance the EQC, and that EQC disturbance is mitigated/compensated by measures that result in a net environmental benefit to the parcels and net benefits related to most, if not all, of the purposes of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed development to be consistent with the Virginia Department of Transportation (VDOT) Richmond Highway Corridor Improvements Project.

### *Public Hearings*

A Planning Commission meeting was held on July 19, 2018. A public hearing before the Planning Commission has been scheduled for October 24, 2018 at 7:30 p.m. as explained in the memo included as Attachment A on page 9. The testimony from the July 19 meeting has been transcribed and can be found on the Plan amendment webpage at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy) and the Planning Commission calendar at [www.fairfaxcounty.gov/planningcommission/sites/planningcommission/files/assets/calendar/2017/october2017.pdf](http://www.fairfaxcounty.gov/planningcommission/sites/planningcommission/files/assets/calendar/2017/october2017.pdf). Any speakers who wish to have their July testimony considered by the Planning Commission should email [Plancom@fairfaxcounty.gov](mailto:Plancom@fairfaxcounty.gov) or call the Planning Commission office at 703-324-2865 and identify the portion of the transcript to be submitted in lieu of or to supplement testimony at the October 24 public hearing. The Board of Supervisors public hearing is scheduled for Tuesday, November 20, 2018 at 4:30 p.m. Note this time is an update to the information included in the memo shown as Attachment A.

*Staff Recommendation*

Staff recommends retaining the adopted Comprehensive Plan recommendation for private open space. Staff's analysis can be found in the staff report published July 5, 2018 at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy).

**DISCUSSION**

A number of considerations specific to the development proposal for RZ/FDP 2016-MV0-018 and SE 2016-MV-016 were mentioned at the Planning Commission's July 19 meeting. While these matters are typically the focus of the staff report and public hearing for the rezoning and special exception applications, because extensive discussion ensued and interest in these applications was expressed by the Planning Commission and the public in July and following the meeting, this section of the addendum provides updated information and additional considerations related to the concurrent applications that may be pertinent to the evaluation of the proposed Plan amendment.

*Updates*

Topic 1: Impacts to Dogue Creek - whether the proposed development would have any negative effect on Dogue Creek

In staff's view, issues regarding potential adverse impacts to Dogue Creek have not been definitively resolved. While information has been provided by the applicant identifying a reduction in phosphorus runoff as a result of the development proposal, there is a need to consider more broadly the potential impacts to Dogue Creek and water quality that could result from the proposed development, particularly in relation to the potential for erosion and sedimentation. Staff and representatives of the applicant have engaged in numerous conversations about these concerns, and further discussion is anticipated as the review of the rezoning application continues. An assessment of potential impacts or benefits to Dogue Creek and its RPA and EQC should include an analysis of the environmental corridor more holistically beyond phosphorus runoff. This type of analysis is needed to assess conformance with the Board's EQC policy and other environmental goals and objectives.

Topic 2: Dogue Creek Floodplain Revision – information about the applicant's floodplain study

The purpose and intent of the Floodplain Ordinance is "to protect against loss of life, health, or property from flood or other dangers." As such, the applicant is required to conduct a floodplain study to demonstrate the proposed development would not raise flood elevations. In light of the magnitude of the pending floodplain revision that is explained in the following paragraphs, the development plan under the proposed Plan amendment density of 8 du/ac may be determined to be contrary to the purpose and intent of the Floodplain Ordinance. Modeling a 100-year recurrence interval flood is a statistical approach to risk reduction, and the inherent inaccuracies of estimating flood flows further underscores the importance of land preservation and safe development practices near sources of flooding.

Since the staff report publication and Planning Commission meeting in July, staff identified that the existing FEMA floodplain report used in previous floodplain studies underestimated flood

flows as 4,250 cubic feet per second (cfs) where 8,377 cfs more accurately represents the discharge.

The applicant's materials to date have included floodplain information based on the effective FEMA hydraulic analysis report for Dogue Creek. The Fairfax County Department of Land Development Services (LDS) approved the applicant's most recent floodplain study, #5271-FPV-002-A-1, based on the flow data in the effective FEMA report. The applicant's study showed the proposed development would not raise flood elevations by placing the proposed fill. Since that time, VDOT shared hydrologic analysis with the County showing that flood flows are underestimated in the effective FEMA floodplain report. The County concurs with the hydrologic assessment performed by VDOT and notified the applicant on September 7, 2018 that a new floodplain study is required to reflect the significantly higher and more accurate flow rates. Floodplain elevations at the site are anticipated to be 1.0 to 2.5 feet higher than in the effective FEMA floodplain study, and the applicant's most recent floodplain study, and will be confirmed in subsequent submissions of the floodplain study.

Topic 3: Environmental Improvement - whether the proposed development improves the environmental condition of the property compared to its current condition

Several factors are critical in the evaluation of potential environmental benefits and/or improvements. These include: the extent of the proposed EQC restoration; the extent of the natural buffer that will be restored/protected between the proposed development and the stream and its associated wetlands; proposed changes to drainage conditions on the subject area (including measures that will be taken by the applicant to resolve erosion and sedimentation concerns related to the drainage issues as described in the staff report); tree planting and preservation; landscaping; and invasive plant management. At the time of staff report addendum publication, the above mentioned factors are actively being discussed between staff and the applicant, and staff cannot conclude that the proposed rezoning application would result in an overall environmental improvement. These issues necessitate continued discussion during the review of the rezoning application if a Plan amendment is adopted.

Topic 4: Stream buffer – whether there is a standard for a minimum buffer distance

Virginia's Chesapeake Bay Preservation Area Designation and Management Regulations, which establish the required parameters of the county's Chesapeake Bay Preservation Ordinance, require that a "vegetated buffer not less than 100-feet wide be located adjacent to and landward of all tidal shores, tidal wetlands, certain associated non-tidal wetlands, and along both sides of all water bodies with perennial flow".<sup>1</sup> The Regulations also state, "to minimize the adverse effects of human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100-foot wide buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff shall be retained if present

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<sup>1</sup> Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance. "Riparian Buffers Modification & Mitigation Guidance Manual." September 2003, reprinted 2006. *Virginia Department of Environmental Quality*. [www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf), page 1. Accessed September 2018.

and established where it does not exist.”<sup>2</sup> Fairfax County has added to this state minimum-required buffer area all “major floodplain” areas, which are 100-year floodplains of streams/watercourses with drainage areas of 360 acres or more.

The following diagram illustrates many of the benefits provided by riparian forest buffers and depicts the ranges in minimum buffer widths that are recommended to achieve these benefits. The range and extent of benefits grow with increasing buffer widths. Relatively narrow buffer areas provide limited benefits.

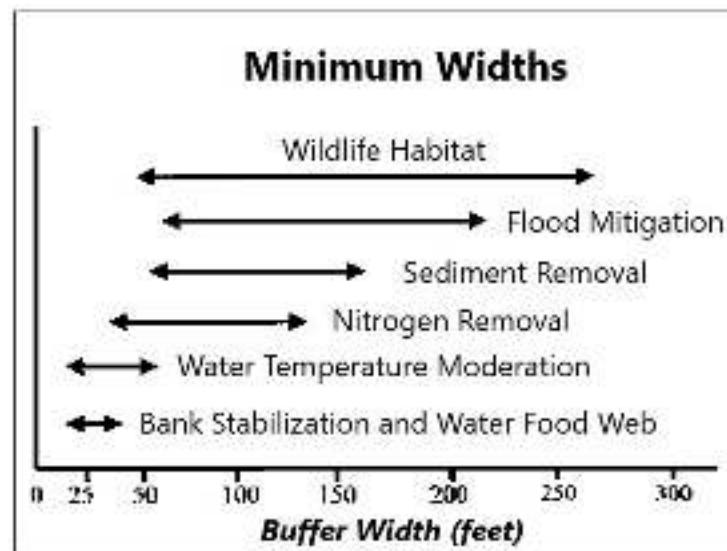


Figure 6-3. Range of minimum widths for meeting specific buffer objectives.

Source: United States Department of Agriculture. “Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers.” May 1997, revised June 1998.

*Chesapeake Bay Program.* [www.chesapeakebay.net/content/publications/cbp\\_13019.pdf](http://www.chesapeakebay.net/content/publications/cbp_13019.pdf), Section IV, page 6-8, Figure 6-3.

#### *Response to Cited Rezoning Application RZ/FDP 1998-LE-055*

At the Planning Commission meeting on July 19, 2018, RZ/FDP 1998-LE-055 (Hybla Valley Property LLC) was referenced by a representative of the rezoning applicant (Mark Viani) as an example of a development plan that included new residential lots in a floodplain. The purpose of the following discussion is to provide additional information regarding staff’s evaluation and the approved development plan that was not available at the July 19 meeting.

Attachment B, pages 10-11, shows the approved development plan with the 100-year floodplain delineation highlighted in yellow. Two lots are identified as being partially within the 100-year floodplain; the lots are designated “Lot A” and “Lot B” for the purposes of explanation in this staff report addendum.

<sup>2</sup> Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance. “Riparian Buffers Modification & Mitigation Guidance Manual.” September 2003, reprinted 2006. *Virginia Department of Environmental Quality.* [www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf), page 101. Accessed September 2018.

For “Lot A”, the 2<sup>nd</sup> Addendum to the Environmental Assessment dated August 30, 2000 includes the following on page 2: “in light of the location of this area near the proposed culvert crossing (and the disturbance that will be needed for this crossing), the disturbance that has already occurred in this area, and the broad expanse of the floodplain in this area, this Branch [Environment and Development Review, Planning Division] does not object to these minor encroachments.”

For “Lot B”, page 2 of the same report states, “with the exception of [Lot A], the development plan should be revised such that all private lot areas will be located outside of the 100-year floodplain areas and that no clearing and grading for residential development will occur within such areas. Prior to DPWES approval of the floodplain study, the applicant dealt with this concern by including with the draft proffers a commitment that ‘all private lots shall be located outside the limits of the final boundaries of the flood plain areas as approved by DPWES.’ ” As shown on the development plan, “Lot B” was left vacant. Ultimately, this lot was not established through the subdivision process.

During a conversation with staff subsequent to the July 19 meeting, Mr. Viani highlighted a statement from the August 30, 2000 memorandum expressing the Environment and Development Review Branch’s opposition to “the expansion of the geographic extent of the 100-year floodplain such that private lot areas would be located within the floodplain (either existing or post-development) or such that clearing or grading will be needed in the floodplain . . .”. Mr. Viani raised the concern that the statement suggested staff’s opposition to modifying the floodplain delineation based on an updated floodplain study. While staff does not recall the specific context behind this statement, it is likely this concern addressed the effect that the proposed development would have on the floodplain boundaries and the need to ensure any changes in these boundaries would not result in private lots in floodplains, rather than a dismissal of updated floodplain information. Regardless of the context, the statement did not support the inclusion of private lot areas within the floodplain, with the noted exception of “Lot A”. It is staff’s view that the corners of residential lots encroaching into the floodplain is not analogous to the floodplain impact that would be anticipated through development of residential use up to 8 du/ac that is being evaluated.

#### *Countywide Resource Protection Area (RPA) and Floodplain Data*

Staff received a request from a Planning Commissioner regarding countywide and magisterial district floodplain, EQC, and RPA acreage data, as well as related information regarding private or public ownership, location within or outside of revitalization districts, and impervious cover. Data about EQC acreage is not readily available, however floodplain and RPA data is provided in this section. Tables A through D contain countywide floodplain and RPA acreage information. Tables E and F contain data about impervious acreage. Table G includes data by Supervisor district. The information is aggregated from parcel data and excludes rights-of-way.

Approximately 40,780 acres, or 15.7 percent of the county, is located within RPA *and/or* floodplain. Approximately 20,220 acres, or 7.7 percent of the county, is located in both RPA *and* floodplain. Sully District contains the most acreage in both RPA *and* floodplain, followed by Mount Vernon and Springfield Districts. Together, these three districts contain over 57 percent of the land in the county that is both in RPA *and* floodplain. Of the countywide acreage that is in

RPA *and* floodplain, 530 acres are categorized as impervious. Mount Vernon District contains 285 acres, or over 70 percent of privately owned impervious acreage within RPA *and* floodplain.

Table A: Countywide area within floodplain

Countywide area within floodplain	21,364	acres
<b>Ownership</b>		
Publicly Owned	11,843	acres
Private/Other	9,521	acres
<b>Revitalization District</b>		
In	38	acres
Out	21,326	acres

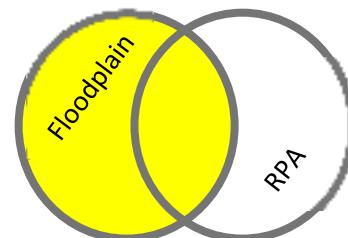
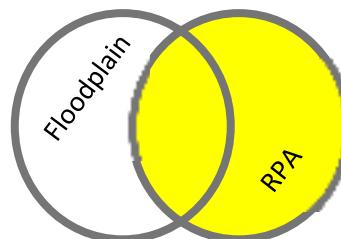
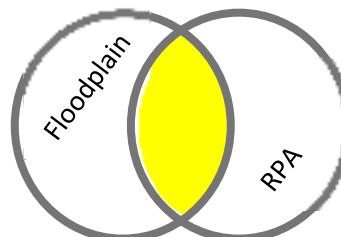


Table B: Countywide area within RPA

Countywide area within RPA	39,738	acres
<b>Ownership</b>		
Publicly Owned	19,640	acres
Private/Other	20,098	acres
<b>Revitalization District</b>		
In	73	acres
Out	39,665	acres

Table C: Countywide area within both floodplain *and* RPA

Countywide area within both floodplain <i>and</i> RPA	20,218	acres
<b>Ownership</b>		
Publicly Owned	11,563	acres
Private/Other	8,655	acres
<b>Revitalization District</b>		
In	34	acres
Out	20,184	acres

Table D: Countywide area within floodplain *and/or* RPA

Countywide area within floodplain <i>and/or</i> RPA	40,783	acres
<b>Ownership</b>		
Publicly Owned	19,851	acres
Private/Other	20,932	acres
<b>Revitalization District</b>		
In	80	acres
Out	40,703	acres

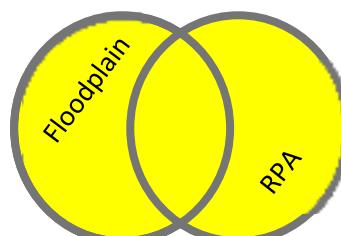


Table E: Countywide **impervious area** within both floodplain *and* RPA

Countywide impervious area within both floodplain <i>and</i> RPA	530	acres
<b>Ownership</b>		
Publicly Owned	127	acres
Private/Other	403	acres
<b>Revitalization District</b>		
In	12	acres
Out	518	acres

Table F: Countywide **impervious area** within floodplain *and/or* RPA

Countywide impervious area within floodplain <i>and/or</i> RPA	2,058	acres
<b>Ownership</b>		
Publicly Owned	202	acres
Private/Other	1,856	acres
<b>Revitalization District</b>		
In	36	acres
Out	2,022	acres

Table G: Data by Supervisor District

Supervisor District	Area within floodplain and/or RPA (acres)	Area within both floodplain and RPA (acres)	Privately owned impervious area within floodplain and/or RPA (acres)	Privately owned impervious area within both floodplain and RPA (acres)
Braddock	2,770	1,466	124	5
Dranesville	6,106	2,802	155	18
Hunter Mill	3,299	1,733	175	13
Lee	2,523	770	150	9
Mason	1,652	732	162	34
Mount Vernon	8,443	3,910	623	285
Providence	1,835	1,056	193	15
Springfield	8,411	3,517	183	14
Sully	5,744	4,231	91	10
<i>Total</i>	<i>40,783</i>	<i>20,218</i>	<i>1,856</i>	<i>403</i>

*Draft Comprehensive Plan Text*

The Planning Commission requested that staff provide a response to draft text provided by Mr. Viani at the July 19 Planning Commission meeting or alternative draft Plan text. Attachment C, pages 12-13, is staff's alternative draft Plan text. Attachment D, pages 14-15, is Planning Commissioner Clarke's alternative draft Plan text. Attachment E, pages 16-17, is Commissioner Clarke's draft modified by staff's suggested draft. In light of the environmental characteristics of the subject property, some of which have significance beyond property lines (i.e. Dogue Creek), staff's version includes conditions that with appropriate implementation would mitigate many of the environmental concerns associated with a recommendation for residential use up to 8 du/ac. While staff is not recommending changes to the adopted Comprehensive Plan guidance for the subject area, draft Plan text is offered for the Planning Commission's consideration if an amendment to the Comprehensive Plan is supported.

Attachment A: Memo dated August 30, 2018



County of Fairfax, Virginia

**MEMORANDUM**

DATE: August 30, 2018

**TO:** Supervisor Dan Storch  
Planning Commissioner Walter Clarke

**FROM:** Fred Seiden, Director of ~~PPC~~  
Department of Planning and Zoning (DPZ)

**SUBJECT:** New Planning Commission Public Hearing for Comprehensive Plan  
Amendment 2018-IV-MV2 (8800 Richmond Highway)

On March 6, 2018, the Board of Supervisors authorized consideration of a proposed Comprehensive Plan amendment for an approximately eight-acre area located at 8800 Richmond Highway, comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. The Board of Supervisors requested that staff evaluate residential use at a density up to 8 dwelling units per acre (du/acre) for the subject area, which is currently planned for private open space. In addition to residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform to Policy Plan guidance on BQC's. The authorization also identified a need for proposed redevelopment to be consistent with the VDOT widening of Richmond Highway.

On July 19, 2018, the Planning Commission held a public hearing for PA 2018-IV-MV2 and recommended deferring the decision to September 13, 2018. Because the staff recommendation is to retain the adopted Plan for private open space, proposed revisions to the Plan guidance were not included in the staff report or available for public review ahead of the hearing. The Virginia Code requires, however, that a Plan amendment ad identify a place in the locality where copies of the proposed amendment are available for examination. Given the absence of any such amendment text before the hearing, the most prudent course of action is to advertise a new Planning Commission public hearing and have draft Plan text available.

Therefore, a new Planning Commission public hearing date has been scheduled for October 24, 2018 at 7:30 pm and the Board of Supervisors public hearing is now scheduled to November 26, 2018 at 4:00 pm. We will make every effort to avoid delays to the consideration of the associated rezoning application as a result of having to hold this new public hearing.

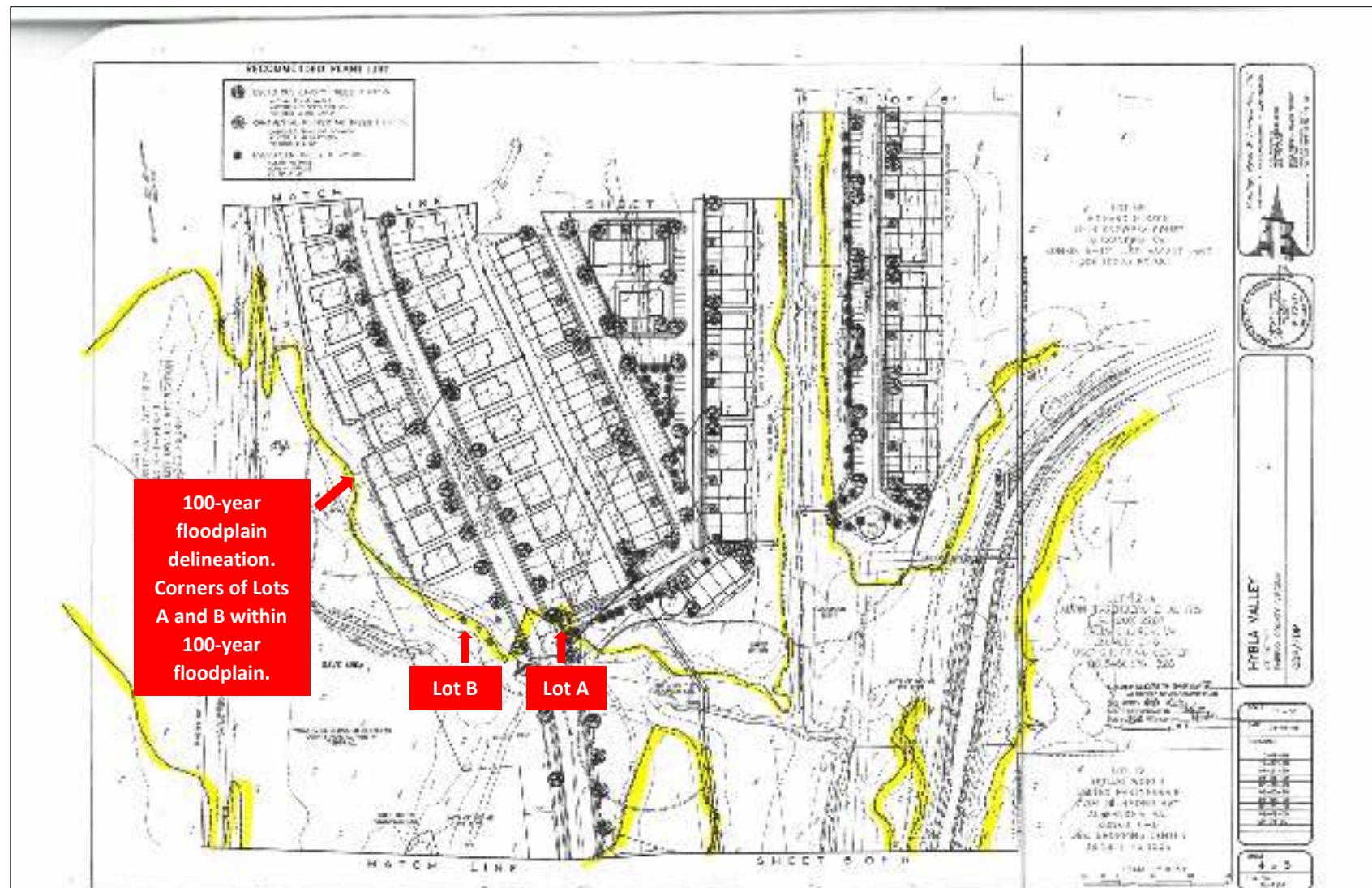
We regret the inconvenience this will cause to the Planning Commission, Board of Supervisors and the many community members who are interested in this proposed Comprehensive Plan amendment.

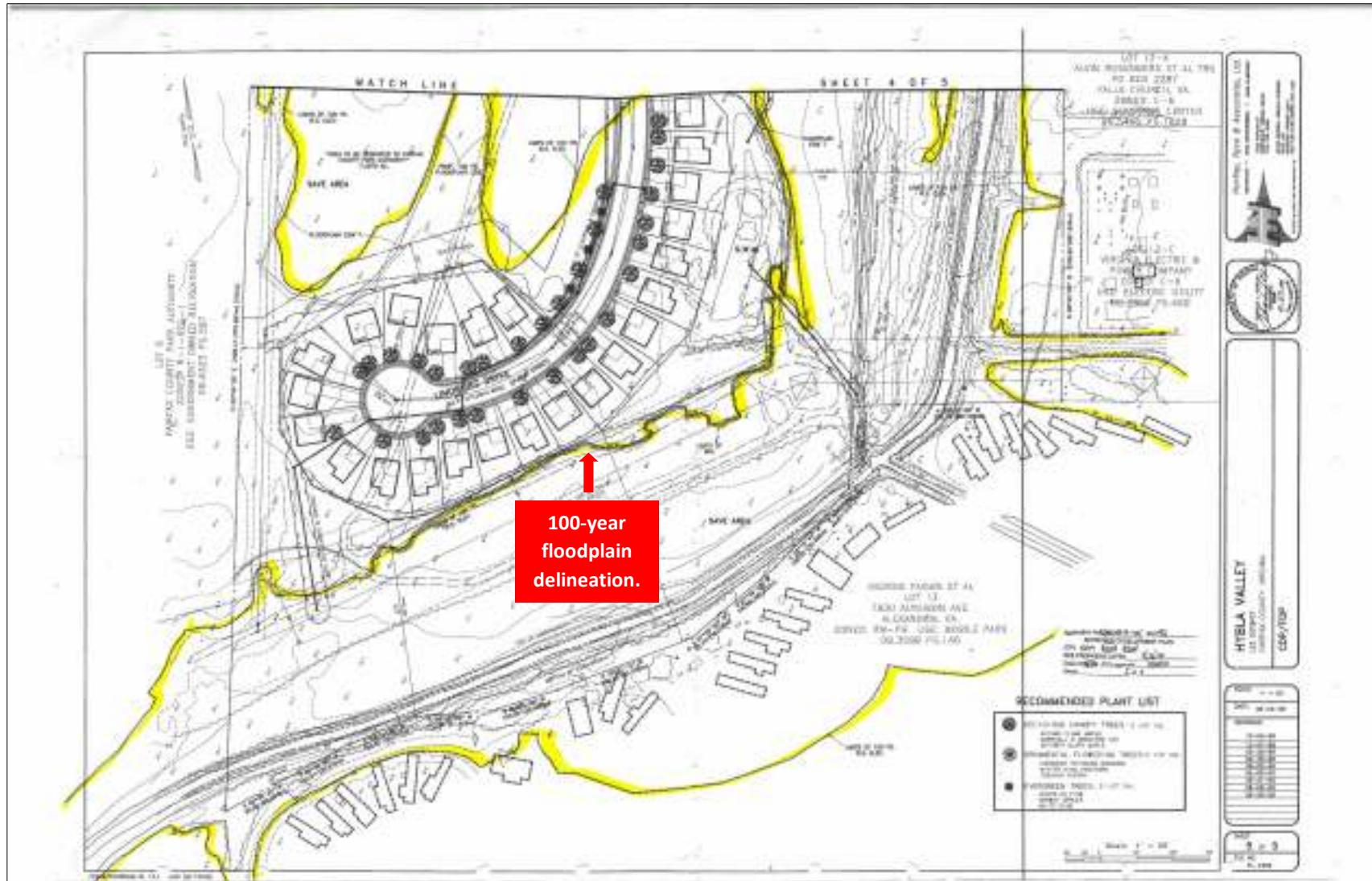
Please contact me at 703-324-1262 with questions or to discuss further.

Excellence • Innovation • Stewardship  
Integrity • Teamwork • Public Service

Department of Planning and Zoning  
Planning Division  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035-5507  
Phone: 703-324-1380  
Fax: 703-653-9447  
[www.fairfaxcounty.gov/planning-zoning](http://www.fairfaxcounty.gov/planning-zoning)

Attachment B: Sections of approved development plan for RZ/FDP 1998-LE-055





Attachment C: Staff draft Plan text

Text proposed to be deleted is shown with ~~strikethrough~~. Text proposed to be added is shown as underlined.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

“1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, ~~and 20,~~ and 18C on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on a limited portion of Tax Map Parcels 109-2 ((1)) 19, 20, and 18C at a density up to 5-8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Development should provide a street network that is coordinated and/or aligned with the planned grid in the Woodlawn CBC. Density may be limited by the need to achieve the conditions for this option. Since the majority of the area is in the floodplain of Dogue Creek, measures should be taken to minimize and mitigate the environmental impact and ensure development is protected from potential flood-related impacts. Under the residential option, the following conditions should be met:

- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Restore a minimum 100-foot vegetated buffer landward from the banks of Dogue Creek and other perennial channels and the maximum extent of connected and contiguous wetlands;
- Reduce encroachment into the RPA and EQC compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities;
- Coordinate with state, federal and local government agencies to ensure development is in harmony with and will not impede improvements to Richmond Highway;
- Ensure the Dogue Creek stream alignment and erosion concerns near the roadbed of Richmond Highway are addressed consistent with the Virginia Department of Transportation’s planned improvements and replacement of the bridge over Dogue Creek;
- Identify a stream channel alignment for the restoration of Dogue Creek agreeable to Fairfax County, the State of Virginia and the United States Army Corps of Engineers. Reserve the land needed to achieve the alignment and allow Fairfax County and/or other entities to implement the channel realignment and related restoration efforts if these actions are not completed as part of the residential development;
- Consider restoring the channel of Dogue Creek using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage.

In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC;

- Ensure that environmental restoration efforts pursued in conjunction with development will be effective and viable over the long term. This could include the establishment of criteria to measure restoration efforts, monitoring of the success of restoration efforts over time (with triggers for corrective action) and consideration of measures that can support appropriate management of restored areas in perpetuity.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018:

Figure 1, page 2; Figure 2, page 5; Figure 4, page 26; Figure 56, page 146; Figure 64, page 160; Figure 72, page 180:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Land Use Plan Map, amended through July 31, 2018 to include Plan Amendment Number 2017-15:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area Plans and Policy Plan:

Revise figures and text references as needed to reflect the expanded boundary area.

Attachment D: Planning Commissioner Clarke draft Plan text

Text proposed to be deleted is shown with ~~strikethrough~~. Text proposed to be added is shown as underlined.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

“1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, ~~and 20, and 18C~~ on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on Tax Map Parcels 109-2((1)) 19, 20, and 18C at a density up to 8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Due to the fact that much of the site has historically been used for light industrial uses and that a portion of Dogue Creek and its associated floodplain are located on the site, measures should be taken to mitigate environmental impacts and ensure development is protected from potential flood-related impacts. Environmental restoration efforts in conjunction with development should be effective and viable over time. Under the residential option, the following should be considered:

- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Create a vegetated buffer along Dogue Creek to generally meet the intent of the Chesapeake Bay Preservation Act;
- Reduce the extent of impervious surfaces in the RPA compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities commensurate with existing conditions and the scope of the proposed residential development;
- Ensure development is in harmony with planned improvements to Richmond Highway; and
- Consider restoring a portion of the original channel of Dogue Creek located on the subject property using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage. In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC;

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018:

Figure 1, page 2; Figure 2, page 5; Figure 4, page 26; Figure 56, page 146; Figure 64, page 160; Figure 72, page 180:

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Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area Plans and Policy Plan:

Revise figures and text references as needed to reflect the expanded boundary area.

Attachment E: Commissioner Clarke's draft modified by staff's draft using ~~strike through~~ and underline. Proposed figure and map modifications are the same and therefore not repeated below.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

"1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, 20, and 18C on both sides of Richmond Highway are predominantly floodplain and planned for open space.

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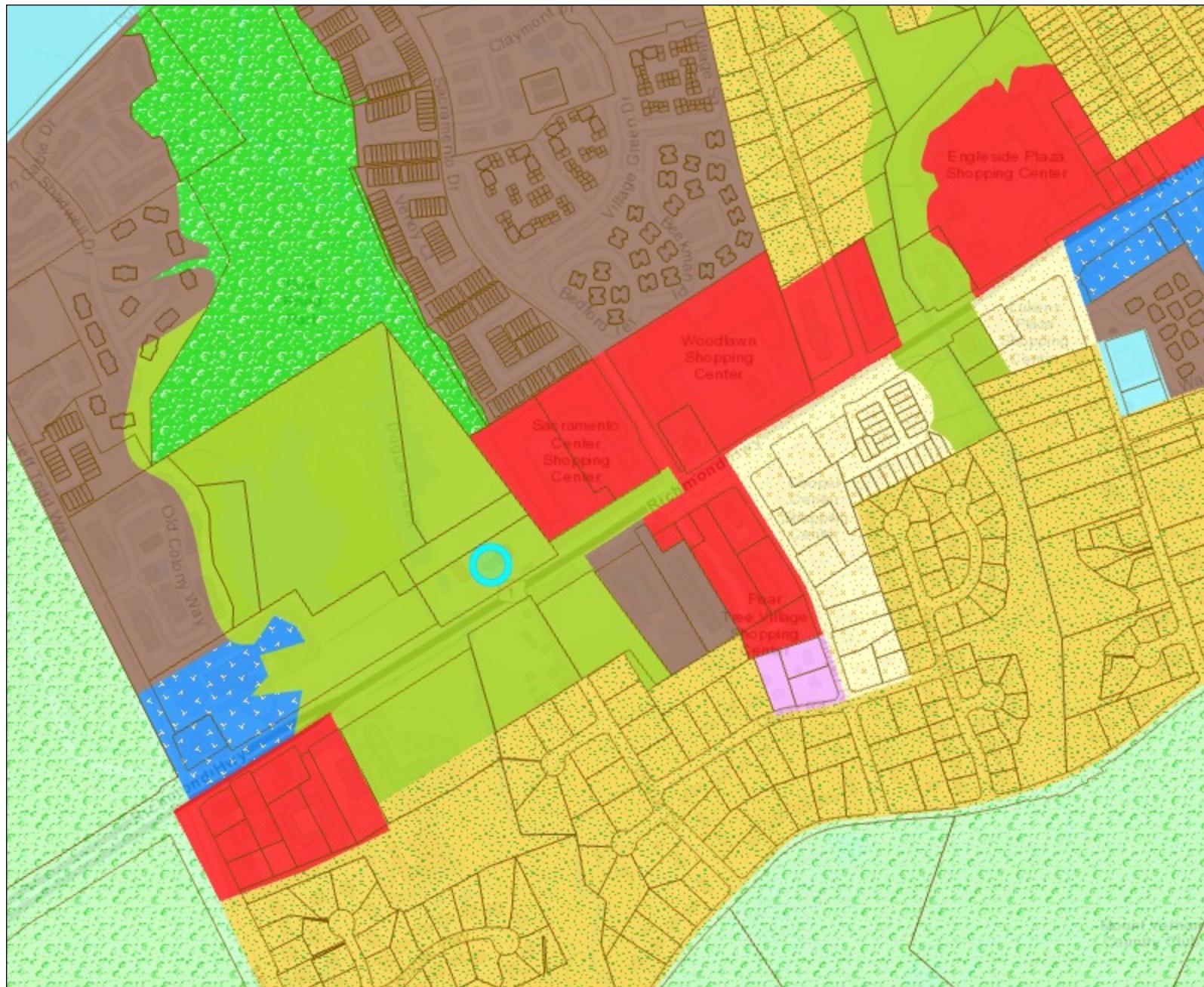
- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Restore a minimum 100-foot Create a vegetated buffer landward from the banks of along Dogue Creek and other perennial channels and the maximum extent of connected and contiguous wetlands to generally meet the intent of the Chesapeake Bay Preservation Act;
- Reduce encroachment into the RPA and EQC the extent of impervious surfaces in the RPA compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities ~~commensurate with existing conditions and the scope of the proposed residential development;~~
- Coordinate with state, federal and local government agencies to Ensure development is in harmony with and will not impede planned improvements to Richmond Highway;
- Ensure the Dogue Creek stream alignment and erosion concerns near the roadbed of Richmond Highway are addressed consistent with the Virginia Department of Transportation's planned improvements and replacement of the bridge over Dogue Creek;
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County and/or other entities to implement the channel realignment and related restoration efforts if these actions are not completed as part of the residential development;

- Consider restoring a portion of the original the channel of Dogue Creek located on the subject property using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage. In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC; and
- Ensure that environmental restoration efforts pursued in conjunction with development will be effective and viable over the long term. This could include the establishment of criteria to measure restoration efforts, monitoring of the success of restoration efforts over time (with triggers for corrective action) and consideration of measures that can support appropriate management of restored areas in perpetuity.



# 8800 Richmond Highway Planned Land Use



0

1,505

3,009 Feet

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.



## Legend

Parcels
Comprehensive Plan Base
Fairfax Center Area
.1-.2 DU/AC
.2-.5 DU/AC
.5-.1 DU/AC
1-.2 DU/AC
2-.3 DU/AC
3-.4 DU/AC
4-.5 DU/AC
5-.8 DU/AC
8-.12 DU/AC
12-.16 DU/AC
16-.20 DU/AC
20+ DU/AC
RPC
Office
Retail and Other
Industrial
Public Parks
Private Recreation
Private Open Space
Public Facilities
Mixed Uses

## Notes:

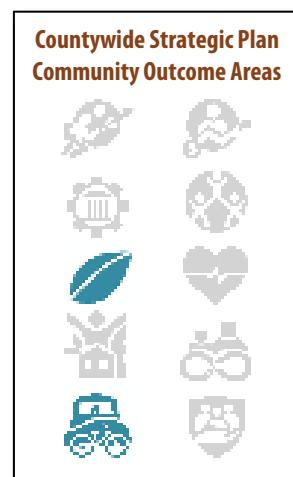
Map produced: 10/25/2023

## Mission

To develop and maintain a comprehensive watershed and infrastructure management program to protect property, health, and safety; to enhance the quality of life; and to preserve and improve the environment for the benefit of the public. To plan, design, construct, operate, inspect, and maintain stormwater infrastructure; perform environmental assessments through coordinated stormwater and maintenance programs in compliance with all government regulations utilizing innovative techniques, customer feedback and program review; and to be responsive and sensitive to the needs of the residents, customers, and public partners.

## Connection to the Countywide Strategic Plan

The Fairfax County Board of Supervisors adopted the first-ever Countywide Strategic Plan on October 5, 2021. The Countywide Strategic Plan serves as a road map to help guide future work, focusing on the 10 Community Outcome Areas that represent the issues of greatest importance to the community. In February of 2023, the first Annual Report on the work of the strategic plan was released to the public. The report contains point-in-time progress highlights for each of the proposed plan strategies, plus a sample data dashboard and data story that is being replicated across all of the outcome areas, and a number of additional initiatives to embed the elements of the plan within department-level work. The report also includes a Year Two Implementation Model, which focuses on identifying the specific strategies that will move forward to implementation under the guidance of the Board of Supervisors. For more information on the Countywide Strategic Plan, please visit [www.fairfaxcounty.gov/strategicplan](http://www.fairfaxcounty.gov/strategicplan). Fund 40100, Stormwater Services, primarily supports the following Community Outcome Areas:



Community Outcome Area	Vision Statement
Environment and Energy	<i>All people live in a healthy sustainable environment.</i>
Mobility and Transportation	<i>All residents, businesses, visitors and goods can move efficiently, affordably and safely throughout the county and beyond via our well-designed and maintained network of roads, sidewalks, trails and transit options.</i>

## Focus

Stormwater Services are essential to protect public safety, preserve property values, and support environmental mandates such as those aimed at protecting the Chesapeake Bay and the water quality of local jurisdictional waterways. Projects in this fund include repairs to stormwater infrastructure; measures to improve water quality such as stream stabilization, rehabilitation, safety upgrades of state regulated dams, repair and rehabilitation of underground pipe systems and surface channels, flood mitigation, site retrofits and best management practices (BMP); and other stormwater improvements.

## Fund 40100: Stormwater Services

The Board of Supervisors approved a special service district to support the Stormwater Management Program and provide a dedicated funding source for both operating and capital project requirements by levying a service rate per \$100 of assessed real estate value, as authorized by [Code of Virginia Ann. Sections 15.2-2400](#). Since this fund was established, staff has made significant progress in the implementation of watershed master plans, public outreach efforts, stormwater monitoring activities, water quality and flood mitigation project implementation, and operational maintenance programs related to existing storm drainage infrastructure including stormwater conveyance and regulatory requirements.

Staff continues to assess the appropriate service rate required to fully support the stormwater program in the future and address the growth in inventory and other community needs. Some of the additional community needs under evaluation include debt service to support the dredging of Lake Accotink, the anticipation of additional flood mitigation requirements, and strengthening the role and financial support for the implementation of stormwater requirements associated with Fairfax County Public Schools sites under renovation. This enhanced program may require incremental changes to the rate over time and may result in a higher rate to fully support the program. Staff continues to evaluate these requirements, as well as the staffing to support them, and analyze the impact of increased real estate values on revenue projections.

One of the recent initiatives being funded by the Stormwater Services Fund is the new Stormwater/Wastewater facility which will consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions. Stormwater operations are currently conducted from various locations throughout the County, and a new colocation of Stormwater and Wastewater staff will provide efficiencies and sharing of resources.

While staff continues to further evaluate the impact of recent initiatives and the long-term requirements for the Stormwater Program, the FY 2024 rate will remain the same as the [FY 2023 Adopted Budget Plan](#) level of \$0.0325 per \$100 of assessed value. However, based on capital project costs and projected revenues, it is anticipated that in the next several years, incremental rate increases will be required based on continued growth of stormwater facilities and infrastructure that must be inspected and maintained by the County, the implementation of flood mitigation projects, and additional requirements in the forthcoming Municipal Separate Storm Sewer System (MS4) Permit. On an annual basis, staff will continue to evaluate the program, analyze future requirements, and develop Stormwater operational and capital resource needs.

The FY 2024 levy of \$0.0325 will generate \$100,802,650, supporting \$29,460,043 for staff and operational costs; \$69,942,607 for capital project implementation including, infrastructure reinvestment, regulatory requirements, dam safety, emergency and flood response and contributory funding requirements; and \$1,400,000 transferred to the General Fund to partially offset central support services such as Human Resources, Purchasing, Budget and other administrative services supported by the General Fund, which benefit this fund.

### Stormwater Services Operational Support

Stormwater Services operational support includes funding for staff salaries, Fringe Benefits, and Operating Expenses for all stormwater operations. In addition, Fund 40100 includes positions related to transportation operations maintenance provided by the Maintenance and Stormwater Management Division. All funding for the transportation related salary expenses and equipment previously supported by Agency 87, Unclassified Administrative Expenses - Public Works Programs, are supported by capital projects in Fund 30010, General Construction and Contributions, as they do not qualify for expenses related to the stormwater service district. Funding for these programs

## Fund 40100: Stormwater Services

within Fund 30010, General Construction and Contributions, provides more transparency and the carryforward of balances at year-end.

Fund 40100 also supports the Urban Forestry Management Division (UFMD). The UFMD was established to mitigate tree loss and maximize tree planting during land development, enforce tree conservation requirements and monitor and suppress populations of Gypsy Moth, Emerald Ash Borer, and other forest pests. The UFMD also implements programs needed to sustain the rich level of environmental, ecological, and socio-economic benefits provided by the County's tree canopy. The UFMD is aligned with the mission of Stormwater Services as it strives to "improve water quality and stormwater management through tree conservation." Tree canopy and forest soils function to mitigate significant levels of water pollution and stormwater runoff. Thirteen merit positions and two temporary positions were transferred from the UFMD in Fund 40100, Stormwater Services, to Fund 40200, Land Development Services, in FY 2023 to better align resources and achieve efficiencies.

### FY 2024 Stormwater Capital Project Support

#### *Conveyance System Inspections, Development and Rehabilitation*

The County owns and operates approximately 1,614 miles of underground stormwater pipes and improved channels, with an estimated replacement value of over one billion dollars. County staff continues to perform internal inspections of all the stormwater pipes. The initial results show that approximately 5 percent of the pipes exhibit conditions of failure, and an additional 5 percent require



maintenance or repair. MS4 Permit regulations require inspection and maintenance of these 1,614 miles of existing conveyance systems, 68,000 stormwater structures, and a portion of the immediate downstream channel at the 7,000 regulated pipe outlets. Acceptable industry standards indicate that one dollar reinvested in infrastructure saves seven dollars over the asset's life and 70 dollars if asset failure occurs. The goal of this program is to inspect pipes on a 20-year cycle and rehabilitate pipes and improve outfall channels before total failure occurs. Total funding in the amount of \$10.0 million is included for Conveyance System Inspections, Development and Rehabilitation in FY 2024, including \$3.0 million for inspections and development and \$7.0 million for rehabilitation and outfall restoration.

#### *Dam Safety and Facility Rehabilitation*

There are approximately 8,200 stormwater management facilities in service that range in size from small rain gardens to large state-regulated flood control dams. The County is responsible for inspecting approximately 5,800 privately-owned facilities and maintaining over 2,400 County-owned facilities. This inventory increases annually and is projected to continually increase as new development and redevelopment occurs in the County. This initiative also includes the removal of sediment that occurs in both wet and dry stormwater management facilities to ensure that adequate capacity is maintained to treat the stormwater. The program results in approximately 50 projects annually that require design and construction management activities as well as contract

## Fund 40100: Stormwater Services

management and maintenance responsibilities. This program maintains the structures and dams that control and treat the water flowing through County-maintained facilities. This program improves dam safety by supporting annual inspections of 20 state-regulated dams and the Huntington Levee and by developing Emergency Action Plans required by the state. The Emergency Action Plans are



updated annually. In addition, these plans include annual emergency drills and exercises, and flood monitoring for each dam. Total funding in the amount of \$17.0 million is included in FY 2024, including \$6.0 million for maintenance and \$11.0 million for rehabilitation.

### *Stormwater/Wastewater Facility*

This project will provide funding for a Stormwater/Wastewater Facility which will consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions. Currently, Stormwater operations are conducted from various locations throughout the County, with the majority of staff located at the West Drive facility. Facilities for field maintenance operations and for field/offices-based staff are inadequate and outdated for the increased scope of the stormwater program, and inadequate to accommodate future operations. This project is currently in construction and is scheduled to be completed in late 2025. The facility is financed by EDA bonds with the Stormwater Services Fund and Wastewater Fund supporting the debt service. Funding in the amount of \$4.2 million is included in FY 2024 to support the debt service for the Stormwater/Wastewater Facility.

### *Emergency and Flood Response Projects*

This program supports flood control projects for unanticipated flooding events that impact storm systems and structural flooding. The program provides annual funding for scoping, design, and construction activities related to flood mitigation projects. Funding in the amount of \$7.0 million is included for the Emergency and Flood Response Projects in FY 2024.

### *Enterprise Asset Management-Work Order System*

This project will provide funding for the transition from an Enterprise Asset Management (EAM) system to a more functional Asset Management Program (AMP). This funding will support the acquisition of software, servers, and consultant services to migrate asset management and related work order management into the new system. The current system tracks assets, inspections, daily work management, and associated contractor costs. Features of the replacement system include geographic information system (GIS) integration and field mobility. The Department of Public Works and Environmental Services (DPWES) Information Technology staff have collaborated with the Stormwater Management and the Wastewater Management staff to promote interagency capabilities, optimize performance, and improve system lifecycle management for the new system. This new system will meet future expectations for both divisions and optimize service delivery for DPWES. Funding in the amount of \$0.64 million is included in Capital Projects and an amount of \$0.66 million is included in Operating Expenses for this project in FY 2024.

## Fund 40100: Stormwater Services

### *Stormwater-Related Contributory Program*

Contributory funds are provided to the Northern Virginia Soil and Water Conservation District (NVSWCD) and the Occoquan Watershed Monitoring Program (OWMP). The NVSWCD is an independent subdivision of the Commonwealth of Virginia that provides leadership in the conservation and protection of Fairfax County's soil and water resources. It is governed by a five-member Board of Directors - three members are elected every four years by the voters of Fairfax County and two members are appointed by the Virginia Soil and Water Conservation Board. Accordingly, the work of NVSWCD supports many of the environmental goals established by the Board of Supervisors. The goal of the NVSWCD is to continue to improve the quality of the environment and general welfare of the citizens of Fairfax County by providing them with a means of dealing with soil, water conservation, and related natural resource problems. It provides County agencies with comprehensive environmental evaluations for proposed land use changes with particular attention to the properties of soils, erosion potential, drainage, and the impact on the surrounding environment. NVSWCD has consistently been able to create partnerships and leverage state, federal and private resources to benefit natural resources protection in Fairfax County. FY 2024 funding of \$0.6 million is included in Fund 40100 for the County contribution to the NVSWCD.

The OWMP and the Occoquan Watershed Monitoring Laboratory (OWML) were established to ensure that water quality is monitored and protected in the Occoquan Watershed. Given the many diverse uses of the land and water resources in the Occoquan Watershed (agriculture, urban residential development, commercial and industrial activity, water supply, and wastewater disposal), the OWMP plays a critical role as the unbiased interpreter of basin water quality information. FY 2024 funding of \$0.2 million is included in Fund 40100 for the County contribution to the OWMP.

Contributory funding also supports additional projects selected through the successful NVSWCD-administered Conservation Assistance Program (CAP) and Virginia Conservation Assistance Program (VCAP) as approved by the Board of Supervisors on September 4, 2021. CAP and VCAP provide cost share and technical assistance for the voluntary installation of environmental best management practices (BMP). The programs align with the County's watershed management plans that suggest establishing a cost share program with property owners on BMP projects located on private land. The BMPs installed under CAP and VCAP help address private drainage and erosion issues, improve water quality, and support long-term stewardship of the County watersheds by building awareness of the importance of watershed protection. FY 2024 funding of \$0.25 million is included in Fund 40100 for the first year of this contribution to NVSWCD.

### *Stormwater Allocation to Towns*

On April 18, 2012, the State Legislature passed SB 227, which entitles the Towns of Herndon and Vienna to all revenues collected within their boundaries by Fairfax County's stormwater service district. An agreement was developed whereby the Towns remain part of the County's service district and the County returns 25 percent of the revenue collected from properties within each town. This allows for the Towns to provide services independently, such as maintenance and operation of stormwater pipes, manholes, and catch basins. The remaining 75 percent remains with the County and the County takes on the responsibility for the Towns' Chesapeake Bay Total Maximum Daily Load (TMDL) requirements as well as other TMDL and MS4 requirements. This provides for an approach that is based on watersheds rather than on jurisdictional lines. Funding in the amount of \$1.25 million is included for the Stormwater Allocations to Towns project in FY 2024.

### *Regulatory Program*

The County is required by federal law to operate under the conditions of a state-issued MS4 Permit. Stormwater staff annually evaluates funding required to meet the increasing federal and state

regulatory requirements pertaining to the MS4 Permit, and state and federal mandates associated with controlling water pollution delivered to local streams and the Chesapeake Bay. The MS4 Permit allows the County to discharge stormwater from its stormwater systems into state and federal waters. There are approximately 15,000 stormwater outfalls in the County and 7,000 are regulated outfalls covered by the permit. The most recent permit was issued to the County in April 2015 and expired in April 2020. The County is operating under an Administrative Continuance until a new permit is issued. The permit requires the County to document the stormwater management facility inventory, enhance public outreach and education efforts, increase water quality monitoring efforts, and provide stormwater management and stormwater control training to all appropriate County employees. The permit requires the County to implement sufficient stormwater projects that will reduce the nutrients and sediment to comply with the Chesapeake Bay and local stream TMDL requirements. Funding in the amount of \$4.0 million is included for the Stormwater Regulatory Program in FY 2024.

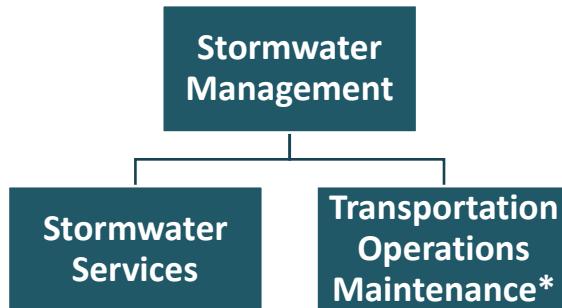
### *Stream and Water Quality Improvements*

This program funds water quality improvement projects necessary to mitigate the impacts to local streams and the Chesapeake Bay resulting from urban stormwater runoff. This includes water quality projects such as construction and retrofit of stormwater management ponds, implementation of green stormwater infrastructure facilities, stream restoration, and water quality projects identified in the



completed Countywide Watershed Management Plans. These projects will aid in the reduction of pollutants and improve water quality in County streams that are considered to be in fair to very poor condition and likely do not meet Federal Clean Water Act water quality standards. In addition, TMDL requirements for local streams and the Chesapeake Bay are the regulatory drivers by which pollutants entering impaired water bodies must be reduced. The Chesapeake Bay TMDL was established by the EPA and requires that MS4 communities, as well as other dischargers, implement measures to significantly reduce the nitrogen, phosphorous, and sediment loads in waters that drain to the Chesapeake Bay by 2025. MS4 Permit holders must achieve 35 percent of the required reductions within the current five-year permit cycle and 60 percent of the required reductions in the next five-year permit cycle. In addition, compliance with the Chesapeake Bay TMDL requires that the County undertake construction of new stormwater facilities and retrofit existing facilities and properties. The EPA continually updates the Chesapeake Bay compliance targets and credits. It is anticipated that the changes to the assigned targets as well as how projects are credited will likely impact future compliance requirements. In addition to being required to meet the Chesapeake Bay TMDL targets, the current MS4 Permit requires the County to develop and implement action plans to address local impairments. Most of the 1,900 watershed management plan projects contribute toward achieving the Chesapeake Bay and local stream TMDL requirements. Funding in the amount of \$24.8 million is included for Stream and Water Quality Improvements in FY 2024.

### Organizational Chart



\*Denotes functions that are included in both Fund 30010, General Construction and Contributions, and Fund 40100, Stormwater Services.

### Budget and Staff Resources

Category	FY 2022 Actual	FY 2023 Adopted	FY 2023 Revised	FY 2024 Advertised	FY 2024 Adopted
<b>FUNDING</b>					
<b>Expenditures:</b>					
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550	\$26,824,362
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636	3,870,636
Capital Equipment	1,519,045	652,000	1,019,268	895,000	895,000
Capital Projects	56,797,439	65,879,740	257,786,068	70,747,419	69,942,607
<b>Subtotal</b>	<b>\$83,313,972</b>	<b>\$95,123,010</b>	<b>\$287,772,206</b>	<b>\$101,532,605</b>	<b>\$101,532,605</b>
Less:					
Recovered Costs	(\$1,547,199)	(\$2,129,955)	(\$2,129,955)	(\$2,129,955)	(\$2,129,955)
<b>Total Expenditures</b>	<b>\$81,766,773</b>	<b>\$92,993,055</b>	<b>\$285,642,251</b>	<b>\$99,402,650</b>	<b>\$99,402,650</b>
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>					
Regular	200 / 200	208 / 208	194 / 194	208 / 208	194 / 194

### FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 program. Included are all adjustments recommended by the County Executive that were approved by the Board of Supervisors, as well as any additional Board of Supervisors' actions, as approved in the adoption of the Budget on May 9, 2023.

#### Employee Compensation \$2,275,938

An increase of \$2,275,938 in Personnel Services includes \$1,272,723 for a 5.44 percent market rate adjustment (MRA) for all employees and \$405,184 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2023. The remaining increase of \$598,031 is included to support employee retention and recruitment efforts that will reduce pay compression and align the County's pay structures with the market based on benchmark data.

#### Other Post-Employment Benefits (\$32,210)

A decrease of \$32,210 in Personnel Services reflects required adjustments associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. For more information on Other Post-Employment Benefits, please refer to Fund 73030, OPEB Trust, in Volume 2 of the FY 2024 Adopted Budget Plan.

## Fund 40100: Stormwater Services

<b>Asset Management Program</b>	(\$140,000)
Funding of \$660,000 in Operating Expenses, a decrease of \$140,000 from the <u>FY 2023 Adopted Budget Plan</u> , will support a new Asset Management Program (AMP). Funding will support the acquisition of software, servers, and consultant services to migrate asset management and related work order management into the new system. This new system will meet the future expectations for both Stormwater and Wastewater divisions and optimize service delivery for the Department of Public Works and Environmental Services.	
<b>Capital Equipment</b>	<b>\$243,000</b>
Funding of \$895,000 in Capital Equipment, an increase of \$243,000 over the <u>FY 2023 Adopted Budget Plan</u> , is included for new equipment and replacement equipment that has outlived its useful life. Replacement equipment in the amount of \$195,000 includes: \$175,000 to replace two equipment trailers and one forklift that support all maintenance and emergency response programs in transporting construction materials, light duty and snow removal equipment; and \$20,000 to replace two backpack electrofishers that are used to support the Countywide comprehensive biological monitoring program to assess the ecological health of watersheds and to satisfy regulatory requirements of the Municipal Separate Storm Sewer System (MS4) permit issued by the state (and mandated by the Clean Water Act). In addition, new equipment in the amount of \$700,000 includes: \$350,000 to retrofit older trucks with new spreader controllers and a GPS enabled system to optimize the County's winter weather operations; \$250,000 to purchase a heavy equipment simulator package that is capable of training operators on backhoes, wheel loaders, excavators, skid steers, and bulldozers; and \$100,000 to purchase a web-based GPS location system for the County's assets in order to instantly locate and check the status of all machinery, equipment, and tools.	
<b>Capital Projects</b>	<b>\$4,062,867</b>
Funding of \$69,942,607 in Capital Projects, an increase of \$4,062,867 over the <u>FY 2023 Adopted Budget Plan</u> , has been included in FY 2024 for priority stormwater capital projects.	

## Changes to FY 2023 Adopted Budget Plan

*The following funding adjustments reflect all approved changes in the FY 2023 Revised Budget Plan since passage of the FY 2023 Adopted Budget Plan. Included are all adjustments made as part of the FY 2022 Carryover Review, FY 2023 Third Quarter Review, and all other approved changes through April 30, 2023.*

<b>Carryover Adjustments</b>	<b>\$192,712,809</b>
As part of the <u>FY 2022 Carryover Review</u> , the Board of Supervisors approved funding of \$192,712,809 based on the carryover of unexpended project balances in the amount of \$190,278,892 and a net adjustment of \$2,433,917. This adjustment included the carryover of \$742,868 in operating and capital equipment encumbrances and an increase to capital projects of \$1,691,049. The adjustment to capital projects was based on the appropriation of higher than anticipated Stormwater tax revenues of \$841,515; actual Economic Development Authority (EDA) Bonds of \$376,033 and interest earnings of \$154,900 associated with the Stormwater/Wastewater Facility; operational savings of \$247,858; revenues of \$195,570 received in FY 2022 as a reimbursement from the Metropolitan Washington Council of Governments; revenues of \$30,583 collected for tree preservation and planting projects in FY 2022; revenues received in FY 2022 from the sale of capital equipment in the amount of \$24,340; and the appropriation of \$1,796, which was the result of a reconciliation of fund balances to the County's financial statements. The adjustment to capital projects was partially offset by a decrease of \$181,546 due to the transfer of Civil Penalties Fees to Fund 40200, Land Development Services.	

## Position Adjustments

\$0

In order to better support the Department of Public Works and Environmental Services' (DPWES) four core business areas and enhance department-wide initiatives, 1/1.0 FTE position was transferred from Fund 40100, Stormwater Services, to Agency 25, Business Planning and Support, in FY 2023 to serve as a Sustainability Officer and provide enterprise-level coordination and high-level policy related to the County's sustainability efforts. The funding related to this position will be provided as part of the *FY 2023 Carryover Review*. In addition, 13/13.0 FTE positions were transferred from Fund 40100, Stormwater Services, to Fund 40200, Land Development Services, in FY 2023 to better align resources and achieve efficiencies.

## Position Detail

The FY 2024 Adopted Budget Plan includes the following positions:

STORMWATER SERVICES – 194 Positions			
<b>MSMD Administration (10 positions)</b>			
1	Director, Maintenance and SW	1	Safety Analyst I
1	HR Generalist II	1	Administrative Assistant IV
1	HR Generalist I	4	Administrative Assistants III
1	Safety Analyst II		
<b>IT – Director's Office/Stormwater (1 position)</b>			
1	Network/Telecom. Analyst I		
<b>Finance – Wastewater and Stormwater (4 positions)</b>			
1	Financial Specialist IV	1	Financial Specialist I
1	Financial Specialist II	1	Administrative Assistant III
<b>Contracting Services/Material Support (5 positions)</b>			
1	Material Mgmt. Specialist III	1	Financial Specialist II
2	Contract Analysts I	1	Inventory Manager
<b>Dam Safety and Maintenance Projects/Projects and LID/Inspection and Maintenance (18 positions)</b>			
1	Public Works-Env. Serv. Manager	5	Engineering Technicians III
1	Engineer IV	2	Engineering Technicians II
1	Senior Engineer III	1	Project Manager II
2	Engineers III	2	Project Managers I
1	Ecologist III	1	Assistant Project Manager
1	Ecologist II		
<b>Field Operations (74 positions)</b>			
2	Env. Services Supervisors	3	Masons
1	Public Works-Env. Serv. Manager	1	Vehicle Maintenance Coordinator
3	Public Works-Env. Bus. Ops. Managers	5	Engineering Technicians III
2	Public Works-Env. Serv. Specialists	2	Engineering Technicians II
8	Senior Maintenance Supervisors	1	Carpenter II
5	Maintenance Supervisors	2	Equipment Repairers
2	Maintenance Crew Chiefs	1	Welder II
15	Senior Maintenance Workers	1	Welder I
10	Heavy Equipment Operators	1	Trades Supervisor
9	Motor Equipment Operators		
<b>Stormwater Infrastructure Branch (16 positions)</b>			
1	Public Works-Env. Serv. Manager	1	Senior Engineering Inspector
4	Engineers IV	2	Engineering Technicians II
1	Senior Engineer III	2	Engineering Technicians I
4	Engineers III	1	Project Manager I
<b>Transportation Infrastructure Branch (7 positions)</b>			
1	Engineer V	3	Project Managers I
1	Engineer IV	1	Engineering Technician II
1	Project Manager II		

Stormwater Planning Division (56 positions)	
1	Director, Stormwater Planning
1	Engineer V
4	Engineers IV
1	Senior Engineer III
9	Engineers III
4	Project Managers II
2	Project Managers I
4	Ecologists IV
5	Ecologists III
3	Ecologists II
2	Ecologists I
3	Project Coordinators
1	Public Works-Env. Serv. Manager
Urban Forestry (3 positions)	
1	Director, Urban Forestry Division
1	Urban Forester III
1	Project Manager I

## Performance Measurement Results by Community Outcome Area

### Environment and Energy

The objective to receive no MS4 Permit violations related to inspection and maintenance of public and private stormwater management facilities was met in FY 2020, FY 2021 and FY 2022. It is expected that this objective will also be met in FY 2023 and FY 2024. The objective to update 100 percent of the Stormwater emergency action plans was also met in prior years. It is expected that this trend will continue in both FY 2023 and FY 2024.

### Mobility and Transportation

The objective to keep 100 percent of the commuter facilities operational for 365 days was met in prior years. It is expected that this goal will be met in FY 2023 and FY 2024.

Community Outcome Area	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Environment and Energy</b>						
<b>Promoting Air, Water and Land Quality</b>						
MS4 permit violations received	0	0	0	0	0	0
Percent of Emergency Action Plans current	100%	100%	100%	100%	100%	100%
<b>Mobility and Transportation</b>						
<b>Infrastructure Condition, Sustainability and Environmental Impact</b>						
Percent of commuter facilities available 365 days per year	100%	100%	100%	100%	100%	100%

A complete list of performance measures can be viewed at  
<https://www.fairfaxcounty.gov/budget/fy-2024-adopted-performance-measures-pm>

# Fund 40100: Stormwater Services

## FUND STATEMENT

Category	FY 2022 Actual	FY 2023 Adopted Budget Plan	FY 2023 Revised Budget Plan	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
<b>Beginning Balance</b>	<b>\$90,246,043</b>	<b>\$0</b>	<b>\$192,147,379</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue:</b>					
Stormwater Service District Levy	\$88,017,253	\$94,393,055	\$94,393,055	\$100,802,650	\$100,802,650
Sale of Bonds <sup>1</sup>	93,376,033	0	0	0	0
Interest on Investments <sup>2</sup>	154,900	0	0	0	0
Stormwater Local Assistance Fund (SLAF) Grant <sup>3</sup>	2,967,180	0	629,613	0	0
Tree Preservation/Planting Fund <sup>4</sup>	30,583	0	0	0	0
Miscellaneous <sup>5</sup>	247,160	0	81,000	0	0
<b>Total Revenue</b>	<b>\$184,793,109</b>	<b>\$94,393,055</b>	<b>\$95,103,668</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Total Available</b>	<b>\$275,039,152</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Expenditures:</b>					
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550	\$26,824,362
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636	3,870,636
Recovered Costs	(1,547,199)	(2,129,955)	(2,129,955)	(2,129,955)	(2,129,955)
Capital Equipment	1,519,045	652,000	1,019,268	895,000	895,000
Capital Projects <sup>6</sup>	56,797,439	65,879,740	257,786,068	70,747,419	69,942,607
<b>Total Expenditures</b>	<b>\$81,766,773</b>	<b>\$92,993,055</b>	<b>\$285,642,251</b>	<b>\$99,402,650</b>	<b>\$99,402,650</b>
<b>Transfers Out:</b>					
General Fund (10001) <sup>7</sup>	\$1,125,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
Land Development Services (40200) <sup>8</sup>	0	0	208,796	0	0
<b>Total Transfers Out</b>	<b>\$1,125,000</b>	<b>\$1,400,000</b>	<b>\$1,608,796</b>	<b>\$1,400,000</b>	<b>\$1,400,000</b>
<b>Total Disbursements</b>	<b>\$82,891,773</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Ending Balance<sup>9</sup></b>	<b>\$192,147,379</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Tax Rate Per \$100 of Assessed Value</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>

<sup>1</sup> In FY 2022, an amount of \$93.4 million in Economic Development Authority (EDA) Bonds was issued to support the construction of the Stormwater/Wastewater Facility to consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions.

<sup>2</sup> Interest on Investments revenue represents interest earned associated with the Stormwater/Wastewater Facility project.

<sup>3</sup> Represents previously approved Virginia Department of Environmental Quality (VDEQ) Stormwater Local Assistance Fund (SLAF) grants to support stream and water quality improvement projects. An amount of \$2,967,180 was received in FY 2022 and an amount of \$629,613 is anticipated in FY 2023 and beyond.

<sup>4</sup> Reflects revenues collected through the land development process that will support tree preservation and planting projects in FY 2023.

<sup>5</sup> Miscellaneous revenues in FY 2022 represent an amount of \$195,570 received as a reimbursement from the Metropolitan Washington Council of Governments for emergency flood response projects, an amount of \$27,250 collected in civil penalties, and an amount of \$24,340 received from the sale of capital equipment. In addition, an amount of \$81,000 is carried forward to FY 2023 to support the Paul Springs Stream Restoration project at Hollin Hills. The existing pipes will be replaced, and the Virginia Department of Transportation (VDOT) has agreed to reimburse Fairfax County for expenses up to \$81,000.

<sup>6</sup> In order to account for revenues and expenditures in the proper fiscal year, audit adjustments were reflected as an increase of \$63,612.94 to FY 2022 Capital Projects to record expenditure accruals. This impacted the amount carried forward resulting in a decrease of \$63,612.94 to the FY 2023 Revised

## Fund 40100: Stormwater Services

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*Budget Plan.* The projects affected by this adjustment were 2G25-006-000, Stormwater Regulatory Program, and SD-000031, Stream and Water Quality Improvements. The Annual Comprehensive Financial Report (ACFR) reflects all audit adjustments in FY 2022. Details of the audit adjustments were included in the FY 2023 Third Quarter Package.

<sup>7</sup> Funding in the amount of \$1,400,000 is transferred to the General Fund to partially offset central support services supported by the General Fund, which benefit Fund 40100. These indirect costs include support services such as Human Resources, Purchasing, Budget and other administrative services.

<sup>8</sup> Funding in the amount of \$208,796 was transferred to Fund 40200, Land Development Services, to reflect all revenues and expenditures associated with civil penalty activities in the new Special Revenue fund.

<sup>9</sup> Capital projects are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

## Fund 40100: Stormwater Services

### SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000	6,000,000
Dam Safety and Facility Rehabilitation (SD-000033)	68,576,104	5,039,029.28	12,188,745.52	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,546.30	82,119,862.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 1, 2023

Ms. Wendy Howard Cooper  
Director, Dam Safety and Floodplain Management  
Department of Conservation and Recreation  
East Main Street, 24<sup>th</sup> Floor  
Richmond, Virginia 23219

Reference: Community Flood Preparedness Fund, CY 2023 Round 4 Grant Applications

Dear Ms. Howard Cooper:

This is a response to the Department of Conservation and Recreation's (DCR) recent announcement of the Virginia Community Flood Preparedness Fund (CFPF) grant.

We are providing CFPF applications that contain information and request funding assistance for the following four flood prevention and protection projects.

1. Broad Branch Court Stormwater Improvement Project
2. Little Pimmit Run Tributary at Woodland Terrace
3. Richmond Highway Voluntary Land Acquisition
4. Woodglen Lake Toe Drain Repair

If one or more of these grants are awarded, Fairfax County (County) will provide the necessary match for each selected project as required by your department, subject to Fairfax County Board of Supervisors approval. It is understood that the County's total match amount for all four County applications being considered during the supplemental review may be as much as \$7,926,300.

If you have any questions or need additional assistance, please contact Joni Calmbacher, Division Director, Department of Public Works and Environmental Service, Stormwater Planning Division at 703-324-5500.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bryan J. Hill".  
Bryan J. Hill  
County Executive

Attachment: Community Flood Preparedness Fund (CFPF): Applications

Bryan J. Hill

Department of Conservation and Recreation, Virginia Community Flood Preparedness Fund

Page 2 of 2

cc:    Rachel Flynn, Deputy County Executive  
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)  
Eleanor Ku Coddng, Deputy Director, DPWES, Stormwater and Wastewater Divisions  
Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division

<b>Goal AE.1</b>	Protection: Protect Natural Resources That Enhance Resilience
<b>STRATEGY AE.1b</b>	Survey and Protect Areas that Provide Natural Resilience Benefits

**Strategy Description:** Healthy natural lands and environmentally sensitive areas are critical to the long-term resilience of Fairfax County. These areas, such as wetlands, critical habitats, biodiverse land, natural shorelines, and healthy stream corridors, can reduce our climate vulnerabilities and enhance resilience in several ways. They can serve as natural barriers against severe storms, absorb excess flood waters and storm surge energy, protect downstream communities, reduce erosion, mitigate against extreme heat, and support the biodiversity of ecosystems threatened by climate change, among other benefits. These areas and natural resources provide many additional co-benefits, such as water quality protection and protection of areas with historical, archaeological, or recreational significance. This strategy involves the surveying, mapping, prioritization, and conservation of natural areas that currently lack sufficient protection.

#### Climate Hazards Addressed:



<b>Lead:</b>	FCPA, NVSWCD	
<b>Partners:</b>	DPD, DPWES, FCDOT, OCA, OEEC, UFMD	
<b>Timeline:</b>	Long-Term (5-8 years)	
<b>Cost:</b>	\$\$\$ (\$500k - \$1 million)	
<b>Existing Staff:</b>	Partial	

#### Implementation Actions:

i.	Identify and secure additional staff capacity and/or consultant support needed to implement this strategy.
ii.	Leverage the Consolidated Natural Resources Management Plan (Strategy AE1.a) and other applicable plans as a starting point for identification of environmentally sensitive areas that could be candidates for more stringent protection. To thoroughly analyze these candidate areas, complete field surveys of public land to verify and document lands that naturally enhance climate resilience, contain sensitive and/or rare habitats, and areas with extensive invasive species in need of management. Consider leveraging existing GIS data, such as tree canopy cover and land use type, to inform field survey work. Partner with state and federal agencies, as applicable, to coordinate survey work and data collection. Build off of existing and ongoing surveys and documentation from FCPA and NVRC.
iii.	Informed by data collection under this strategy as well as available county data, create an updated GIS database of natural areas in need of stronger protections for climate resilience, including lands with sensitive and/or rare habitat and species and high-quality natural resources areas.
iv.	Based upon the field surveys, GIS database, and <a href="#">Resilient Fairfax Vulnerability and Risk Assessment</a> , identify land prioritized for conservation easements, Natural Area Preserve designation, or other protective status to enhance or preserve natural climate resilience.
v.	Explore strategic partnerships, grant opportunities and/or financing opportunities for conservation and protection of identified environmentally sensitive areas, including but not limited to: tidal and freshwater wetlands, intermittent streams, shorelines, and habitat for key species. Partners in this effort may include, but are not limited to: Department of Defense, National Park Service, Northern Virginia Regional Parks, Northern Virginia Conservation Trust, and Virginia Department of Conservation and Recreation.

**Key Performance Indicators:**

- Total amount of land area surveyed, and number of field surveys completed.
- Amount secured in grant and/or other funding sources for conservation.
- Percent of eligible acres of environmentally sensitive land conserved and/or protected within the county.

**Equitable Implementation:**

- ✓ Consider how the protection of environmentally sensitive areas could affect development and/or change land values.
- ✓ Consider whether the benefits of protecting environmentally sensitive areas will be distributed equitably.
- ✓ Along with protecting environmentally sensitive areas, include aspects of environmental restoration in low-income neighborhoods so the benefits that come from these ecosystems are equitably distributed.

**Funding and Resource Opportunities:**

- BRIC
- Coastal and Estuarine Land Conservation Program
- Conservation Reserve Enhancement Program
- Emergency Coastal Resilience Fund
- Land and Water Conservation Fund
- National Coastal Resilience Fund
- National Coastal Wetlands Conservation Grant Program
- Virginia Environmental Endowment
- Wildlife Conservation Society Climate Adaptation Fund
- Virginia Land Conservation Fund
- Virginia Open Space Lands Preservation Trust Fund
- Virginia Recreational Trails Fund

**Co-Benefits:**

## ADDITIONAL STRATEGIES FOR GOAL AE.1

**Strategy  
AE.1c****Update Provisions for Conservation Easements**

Update the provisions for conservation easements to include potential canopy credit as well as resources needed to maintain or improve the condition of the resource in perpetuity.

**Strategy  
AE.1d****Integrate Climate Change Considerations into Urban Forestry Program**

Consider future climate conditions to support long term tree health, including consideration for tree selection, required maintenance, and planting processes.

**Dyke Marsh Wildlife Preserve Restoration**

Dyke Marsh is the Washington metropolitan region's largest freshwater wetland and one of the best studied wetlands in the nation. Located in Fairfax County, the marsh is home to 300 different plant species including six species of concern. The marsh began growing 2,500 years ago. During the 20th century, over 100 acres of the marsh was dredged away for mining of sand and gravel. Erosion and sea level rise pose additional threats. The USACE and NPS have been working on Dyke Marsh stabilization. Phase I is complete, and Phase II was scheduled to start summer 2022. Restoration and stabilization of marshes like Dyke Marsh not only provide critical habitat for a variety of wildlife, but also provide storm buffers, helping to reduce wave energy and prevent erosion. Additionally, our marshes act as natural filters to clean the waters of the Potomac River.



County of Fairfax, Virginia

## **FLOODPLAIN MANAGEMENT PLAN**

(Part of the Northern Virginia Regional Hazard Mitigation Plan)

### **PROGRESS REPORT**



*Depth of flooding above building Lowest Point of Entry (LPE) for  
100-year tidal elevation at Belle Haven*

**STORMWATER PLANNING DIVISION**  
**DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES**  
A Fairfax County, VA Publication, July 2023

the FIRM and FIS in 2024. The County is required to adopt the maps within six months of receiving the LFD.

**XI. Fairfax County Mitigation Action 21 (2010):**

**Develop an outreach program aimed at assisting private dam owners with proper operation and maintenance**

SWPD will identify specific outreach techniques for the private dam owners when resources become available.

**XII. Fairfax County Mitigation Action 23 (2010):**

**Identify gaps in current recovery planning efforts within the County**

In 2012, the County published the Pre-Disaster Recovery Plan, which was scheduled to be revised in 2017. During the review process, gaps were identified and readdressed. Pre-Disaster Recovery plan was updated in 2020. The new 2020 plan was adopted/signed by the County Executive in April 2020. DEMS is planning on starting a review and revision process in the fall/winter timeframe in 2023.

**XIII. Fairfax County Mitigation Action 26 (2010):**

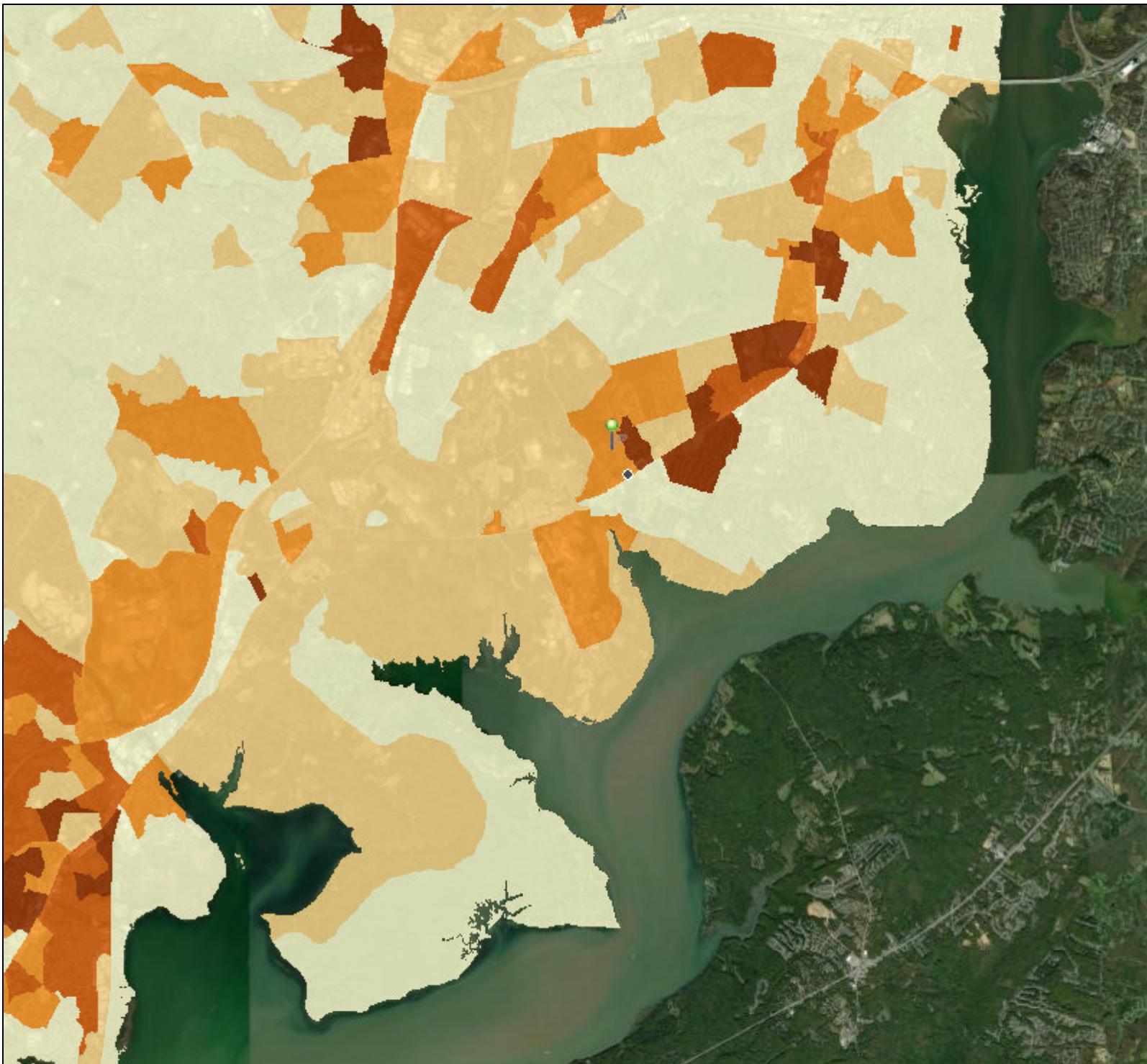
**Use fee simple and/or permanent easement to prevent development in the highest priority undeveloped floodplain (and/or wetlands) areas. Work with land trusts to purchase the land or conservation easements. Use these areas as public open space for passive recreational uses**

FCPA continues to acquire land in undeveloped floodplain areas via fee simple acquisitions, developer dedications, donations, and easements. In FY 2023, 13.6 acres of resource protected land was acquired in fee simple to provide continuous natural habitat in the Accotink Stream Valley Park in Providence District.

**XIV. Fairfax County Mitigation Action 27 (2010):**

**Continue development of a comprehensive River Flood Response System for New Alexandria/Belle View and Huntington in partnership with the National Weather Service (NWS) and the U.S. Army Corps of Engineers**

MSMD continues to coordinate with NWS on updates to the County's flood warning system. SWPD is also continuing to work with the U.S. Army Corps of Engineers to develop rainfall/tide triggers for the community protected by the tide gate at New Alexandria/Belle View.

**Legend**

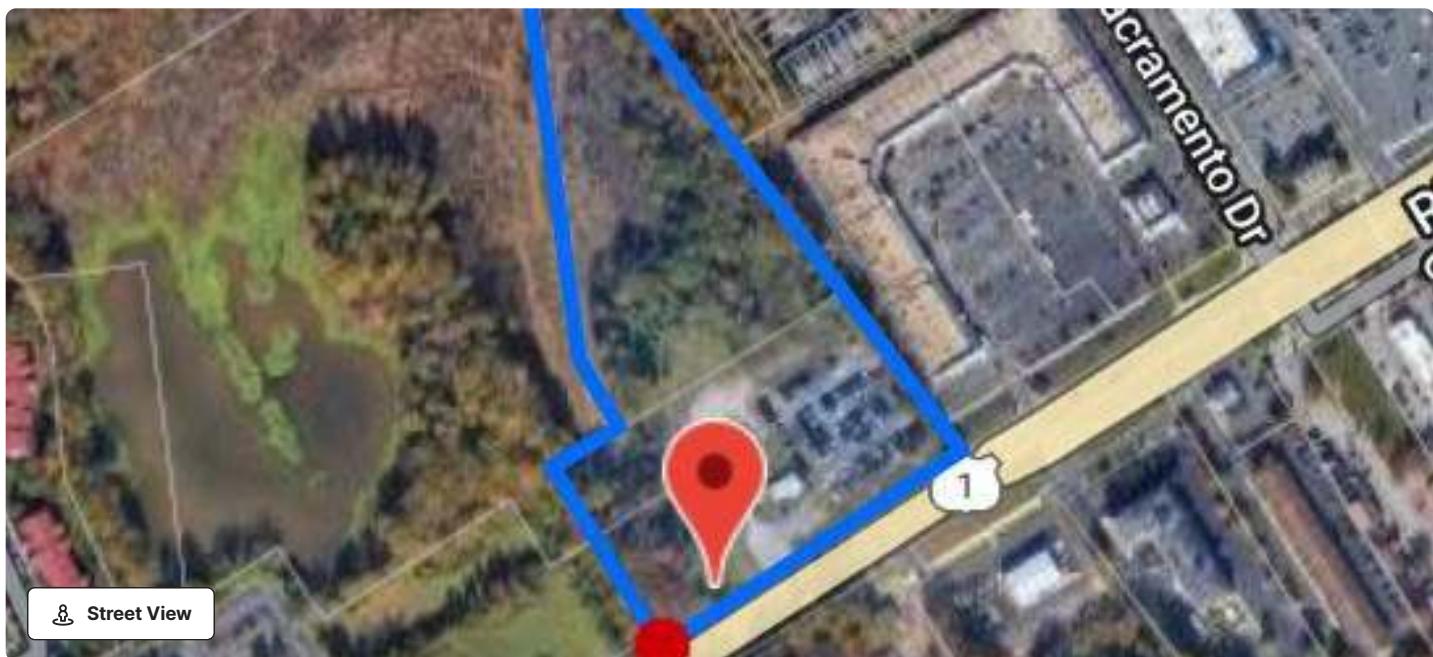
Virginia Social Vulnerability Block Groups 2020	Low Social Vulnerability	Very High Social Vulnerability
	Moderate Social Vulnerability	
	High Social Vulnerability	
Very Low Social Vulnerability		

Disclaimer: The Virginia Flood Risk Information System (VFRIS) includes information from the National Flood Hazard Layer, National Flood Insurance Program, and Digital Flood Insurance Rate Maps provided by the Federal Emergency Management Agency, as well as data from the National Fish and Wildlife Service, U.S. Geological Survey, and Esri. These data are provided on an 'as is' basis. The Virginia Department of Conservation & Recreation (DCR), Virginia Institute of Marine Science (VIMS), nor other contributors of said data shall not be held liable for any use or application of the data provided whatsoever, whether or not that use is improper or incorrect, and assume no responsibility for the use or application of the data or information derived from interpretation of the data.

1:144,447.64  
0 0.5 1 2 mi



← [Search](#) [Overview](#) [Property details](#) [Sale & tax history](#) [Schools](#)  [Favorite](#)  [X-Out](#)  [Share](#)



FOR SALE - ACTIVE

8800 Richmond Hwy, Alexandria, VA 22309

**\$4,000,000**

Est. \$25,988/mo [Get pre-approved](#)

Beds

Baths

**2.55**

Acres (Lot)



Tour with a Redfin Premier agent

OCT  
**25**  
WEDNESDAY

OCT  
**26**  
THURSDAY

OCT  
**27**  
FRIDAY



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[TOUR VIA VIDEO CHAT](#)

**Schedule tour**

Next Available: Today at 3:00 PM

Redfin agents led **27 tours** in 22309 in the last 30 days

[Ask a question](#)

(703) 635-3874

### Alexandria is a hot market

33% of homes accept an offer within 2 weeks. Tour it before it's gone!

Today: **3:00 pm • 4:00 pm • 5:00 pm • 6:00 pm • 7:00 pm • More times**

### About this home

Three lots in total (1092010020, 1092010019, 1092010018C) consisting of 8.17 total acres. Amazing opportunity to build off Route 1 in Alexandria. Not all parcels are buildable. Please call LA with questions.

23 days on Redfin

\$36 per sq ft land

Vacant land

2% buyer's agent fee

2.55 acres

Listed by Dimitri Apostolopoulos • Keller Williams Capital Properties • **703-964-1290** (broker)

Redfin checked: **5 minutes ago** (Oct 25, 2023 at 12:25pm) • Source: BRIGHT MLS #VAFX2150016



— min • [Add a commute](#)

### Connect with a Redfin Premier agent

**Diane Freeman**

**241**  
Deals

**\$137M**  
Volume

**\$2.0M**  
Highest Deal



Write a message...

Get in touch

Text or call **(703) 635-3874**

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## Payment calculator

**\$25,497 per month** ⓘ   [Reset](#)

[Get pre-approved](#)

● Principal and interest	\$23,594
● Property taxes	\$836
● Homeowners' insurance	\$1,067

Down payment

20% (\$800,000) 

Home price

\$4,000,000 

Loan details

30-yr fixed jumbo, 8.05% 

...

**Down payment** ×

Cash ⓘ

\$800,000	20%
-----------	-----



Have a home to sell?

[Add my home equity](#)

Cash	\$800,000
Home Equity	\$0

Total Down: **\$800,000 (20%)**

[Additional resources](#)

## Additional resources

### \$ Down payment assistance

View down payment assistance programs for this home.



### ⚡ Electricity and solar

Working on getting current and accurate energy info for this home

### 📡 Internet

View Internet plans and providers available for this home



Provided by Down Payment Resource, Wattbuy, and AllConnect [i](#)

## Additional services

### Find a VA Loan

[0% Down VA Home Loans: Get Quote](#)

Advertisement



### Home Insurance

[Compare Homeowner Insurance Quote](#)

Advertisement



## Open houses

No upcoming open houses

### Schedule a tour today

Tour with Redfin and one of our agents will be there to answer all your questions.

Today: [3:00 pm](#) • [4:00 pm](#) • [5:00 pm](#) • [6:00 pm](#) • [7:00 pm](#) • [More times](#)

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## Property details for 8800 Richmond Hwy

### Exterior

#### Property Information

- Federal Flood Zone
- Horse: No
- Improvement Assessed Value: \$78,730
- Ownership Interest: Fee Simple

#### Land Information

- Additional Parcels
- Additional Parcels Description: 1092010020 - C-8, 1092010019 - R-2, 1092010018C - R-2
- Current Use: Storage Yard
- Possible Use: Warehouse, Storage Yard, Shopping Center, Senior Assisted/Day Care, Retail, Residential, Multi-Family, Mixed, Mini-Storage, Land/Lot Only, Investment, Industrial, Flex Space, Development, Commercial, Automotive

#### Building Information

- Construction Not Completed

#### Lot Information

- Ground Rent Payment Frequency: Annually
- Lot Size Dimensions: 8.17 Acres
- Lot Dimensions Source: Estimated
- Tidal Water: No

#### Farm Information

- Farm Land Preservation: No

## Financial

### Tax Information

- Agricultural Tax Due: No
- County Tax: \$8,765
- Tax Assessed Value: \$800,450

- Tax Year: 2023

- Tax Annual Amount: \$10,034

### Assessments Information

- Year Assessed: 2023

## Utilities

### Utilities Information

- 200+ Amp Service
- Water Source: Public

- Municipal Trash: No

## Location

### School Information

- School District Name: FAIRFAX COUNTY PUBLIC SCHOOLS
- School District Source: Listing Agent

### Location Information

- Outside City Limits
- Directions: Route 1 Alexandria to 8800 Richmond Hwy.

Details provided by BRIGHT MLS and may not match the public record. [Learn more.](#)

Advertisement

[Report ad](#)

## Sale and tax history for 8800 Richmond Hwy

### Sale History

### Tax History

### Today

Oct 1, 2023	Listed (Active)	\$4,000,000
Date	BRIGHT MLS #VAFX2150016	Price

## Public facts and zoning for 8800 Richmond Hwy

Beds

— Lot Size

2.55 Acres

Baths

— Style

Other

Finished Sq Ft

— Year Built

—

Unfinished Sq. Ft.	—	Year Renovated	—
Total Sq. Ft.	1,080	County	Fairfax County
Stories	1	APN	1092 01 0020

Home facts updated by county records on Aug 24, 2023.

## Additional resources



### Zoning

Working on getting current and accurate zoning information for this home. [Learn more](#)

## Schools

GreatSchools Summary Rating

2/10	<b>Washington Mill Elementary School</b> Public, PreK-6 • Serves this home • 1.5mi	>
3/10	<b>Whitman Middle School</b> Public, 7-8 • Serves this home • 3.3mi	>
3/10	<b>Mount Vernon High School</b> Public, 9-12 • Serves this home • 2.0mi	>

School data is provided by GreatSchools, a nonprofit organization. Redfin recommends buyers and renters use GreatSchools information and ratings as a first step, and conduct their own investigation to determine their desired schools or school districts, including by contacting and visiting the schools themselves.

Redfin does not endorse or guarantee this information. School service boundaries are intended to be used as a reference only; they may change and are not guaranteed to be accurate. To verify school enrollment eligibility, contact the school district directly.

## Around this home

[Redfin](#) > [Virginia](#) > [Fairfax County](#) > [22309](#)

### Transportation near 8800 Richmond Hwy

<b>65</b> /100	<b>44</b> /100	<b>67</b> /100
Somewhat walkable Walk Score®	Some transit Transit Score®	Bikeable Bike Score®



### Places

5 groceries, 27 restaurants, 5 parks



### Transit

## Climate risks

### About climate risks

Most homes have some risk of natural disasters, and may be impacted by climate change due to rising temperatures and sea levels.

#### Risk Factor ⓘ

-  **Flood Factor - Severe** >  
99% chance of flooding in next 30 years
-  **Fire Factor - Moderate** >  
0.15% chance of being in a wildfire in next 30 years
-  **Heat Factor - Severe** >  
7 days above 104° expected this year, 16 days in 30 years
-  **Wind Factor - Moderate** >  
27% chance of strong winds in next 30 years

[View full Risk Factor report](#)

Provided by First Street Foundation ⓘ

## Redfin Estimate for 8800 Richmond Hwy

**\$3,737,454**

▼ \$263K under list price of \$4.00M

### Nearby comparable homes

The Redfin Estimate uses 6 recent nearby sales, priced between \$500K to \$1.6M.



**\$1,000,000** Sold Price

3 beds 2.5 baths 2,521 sq ft  
8737 Lukens Ln, Alexandria, VA 22309

↓ smaller lot

**\$580,000** Sold Price

5 beds 2.5 baths 1,296 sq ft  
8309 Keeler St, Alexandria, VA 22309

↓ smaller lot

[View comparables on map](#)

## Nearby similar homes

Homes similar to 8800 Richmond Hwy are listed between \$65K to \$6M at an average of \$255 per square foot.

**\$400,000**

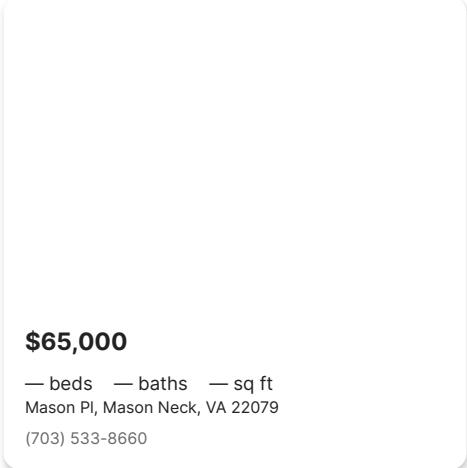
— beds — baths — sq ft  
4875 Dayton Pl, Indian Head, MD 20640  
(301) 375-7976

**\$5,950,000**

— beds — baths — sq ft  
11295 Cresswell Lndg, Lorton, VA 22079  
(703) 425-8000

**\$185,000**

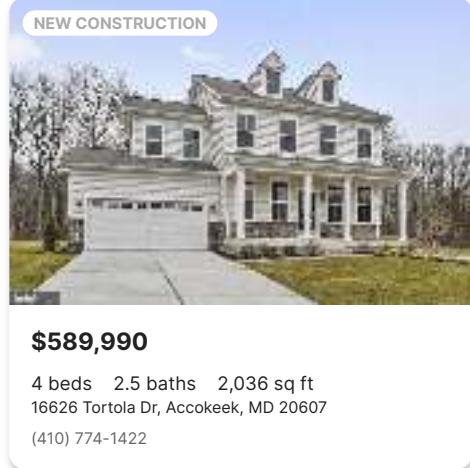
— beds — baths — sq ft  
7638 Belmont Landing Rd, Lorton, VA 22079

**\$65,000**

— beds — baths — sq ft  
Mason Pl, Mason Neck, VA 22079  
(703) 533-8660

**\$584,000**

4 beds 3 baths 2,432 sq ft  
2843 Deer Creek Ct, Indian Head, MD 20640  
(888) 860-7369

**\$589,990**

4 beds 2.5 baths 2,036 sq ft  
16626 Tortola Dr, Accokeek, MD 20607  
(410) 774-1422

[View more homes](#)

## Nearby recently sold homes

Sorry, we don't have any nearby similar homes to display. See all recently sold homes in [22309](#)

## More real estate resources

[New Listings in 22309](#)[Zip Codes](#)[Nearby Cities](#)[Neighborhoods](#)[Popular Searches](#)

8617-D Beekman Pl Unit 17DD  
8508 Washington Ave  
3901 Belle Rive Ter  
8408 Orinda Ct #277

7980 Silverada Pl Unit C  
3805 Laramie Pl Unit H  
8533 Richmond Ave  
8505 Rosemont Cir

## Frequently asked questions for 8800 Richmond Hwy

What is 8800 Richmond Hwy?



How long has this home been listed on Redfin?



How many photos are available for this home?



What comparable homes are near this home?



How much is this home worth?



What's the full address of this home?



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THE FAIR HOUSING ACT AND EQUAL  
OPPORTUNITY ACT. READ REDFIN'S FAIR  
HOUSING POLICY AND THE NEW YORK  
STATE FAIR HOUSING NOTICE.

GreatSchools Ratings provided by [GreatSchools.org](#).

Ann Jennings  
*Secretary of Natural and Historic  
 Resources and Chief Resilience Officer*

Clyde E. Cristman  
*Director*



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

January 10, 2022

Joni Calmbacher, PE, CFM  
 Project Manager II  
 DPWES, Stormwater Planning Division  
 Watershed Projects Implementation Branch – South  
 12000 Government Center Parkway Fairfax, VA 22035

RE: Fairfax County Resilience Plan Submission - CFPF

Dear Ms. Calmbacher,

Thank you for providing an overview of your Resilience Plan, and informing DCR of the various plans that Fairfax County will be utilizing to fulfill the Resilience Plan submission requirements. After careful review and consideration, the Virginia Department of Conservation and Recreation has deemed the Plan complete and meets all the criteria outlined in the 2021 Community Flood Preparedness Grant Manual. This approval will remain in effect for a period of three years, ending on January 11, 2025.

The following elements were evaluated as part of this review:

**1. Element 1: It is project-based with projects focused on flood control and resilience. DCR RESPONSE**

Meets criteria as written.

- a. Project-based: Fairfax County is divided into 30 watersheds which have been addressed in 11 major watershed management plans. Each of the watershed management plans contains projects and watershed management area restoration strategies. The *2017 Northern Virginia Hazard Mitigation Plan* was a regional effort involving nineteen counties, including Fairfax County, and outlines specific mitigation projects for each participating community in order to reduce vulnerability and exposure to future hazards, including flooding events. The *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* contains projects at various locations throughout Fairfax County. The projects included and described in the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* align with the established *Comprehensive Plan* objectives. The *Resilient Critical*

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

*Infrastructure Roadmap for Northern Virginia* contains a database of resilience projects throughout northern Virginia, including Fairfax County.

**2. Element 2: It incorporates nature-based infrastructure to the maximum extent possible. DCR RESPONSE**

Meets criteria as written.

- a. The 2020 *Regional Collaboration to Build Community Resilience in Northern Virginia* expanded upon *The Roadmap*, to include maximization of green infrastructure. Nature-based solutions are also presented in the *Fairfax County Watershed Management Plan* and the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*.

**3. Element 3: It includes considerations of all parts of a locality regardless of socioeconomics or race. DCR RESPONSE**

Meets criteria as written.

- a. All parts of a locality: The *Northern Virginia Hazard Mitigation Plan* discusses the demographic and economic trends throughout the entirety of Fairfax County.
- b. Social vulnerability: The *Regional Collaboration to Build Community Resilience in Northern Virginia* presents a more comprehensive approach that includes an assessment of the socioeconomic impacts of infrastructure disruptions on vulnerable populations that will be taken into account as well as the socioeconomic benefits of infrastructure investment. This expanded upon objectives contained within *The Roadmap*, to ensure equitable access to resilient critical infrastructure.
- c. Demographic Analysis: Population and demographic characteristics outlined within the *Northern Virginia Hazard Mitigation Plan*. The *Fairfax County Comprehensive Plan* also looks at demographics and social factors and utilizes this information to support the Human Services section of the *Comprehensive Plan*.

**4. Element 4: It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation. DCR RESPONSE**

Meets criteria as written.

- a. Coordination with other local and inter-jurisdictional projects, plans and activities: Objective 4: Strengthen Regional Resilience Through Innovative Partnerships, Programs, and Pilots contained within *Resilient Critical Infrastructure Roadmap for Northern Virginia* focuses on coordination with local and inter-jurisdictional agencies and aligning strategies and programs. The *Comprehensive Plan for Fairfax County, Virginia* was adopted by the Board of Supervisors, Planning Commission, The Department of Planning and Zoning, and the Department of Transportation, and guides all of the plans presented in the Resilience Plan

submission for Fairfax County. The *Northern Virginia Hazard Mitigation Plan* was a collaborative effort that was adopted by all impacted localities.

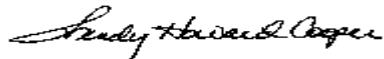
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*. Phased implementation plans presented in the *Fairfax County Watershed Management Plans*.
- 5. **Element 5: Is based on the best available science, and incorporates climate change, sea level rise, storm surge (where appropriate), and current flood maps.**

Meets criteria as written.

- a. The 2018 *Resilient Critical Infrastructure Roadmap for Northern Virginia (Roadmap)* incorporates best available science and identifies actions to potentially decrease the severity of future consequences emanating from climate and extreme weather, to include sea level rise and storm surge. *Sea Level Rise: Impact on Northern Virginia* is an interactive story map and dashboard that was created in 2019 to convey the impact of sea level rise scenarios. The *Northern Virginia Hazard Mitigation Plan* includes analyses of natural hazards based on best available science to include flooding, sea level rise and land subsidence, tropical and coastal storms, and shoreline erosion.

VA DCR looks forward to working with you as you work to make Fairfax County a more resilient community. If you have questions or need additional assistance, please contact us at [cfpf@dcr.virginia.gov](mailto:cfpf@dcr.virginia.gov). Again, thank you for your interest in the Community Flood Preparedness Fund.

Sincerely,

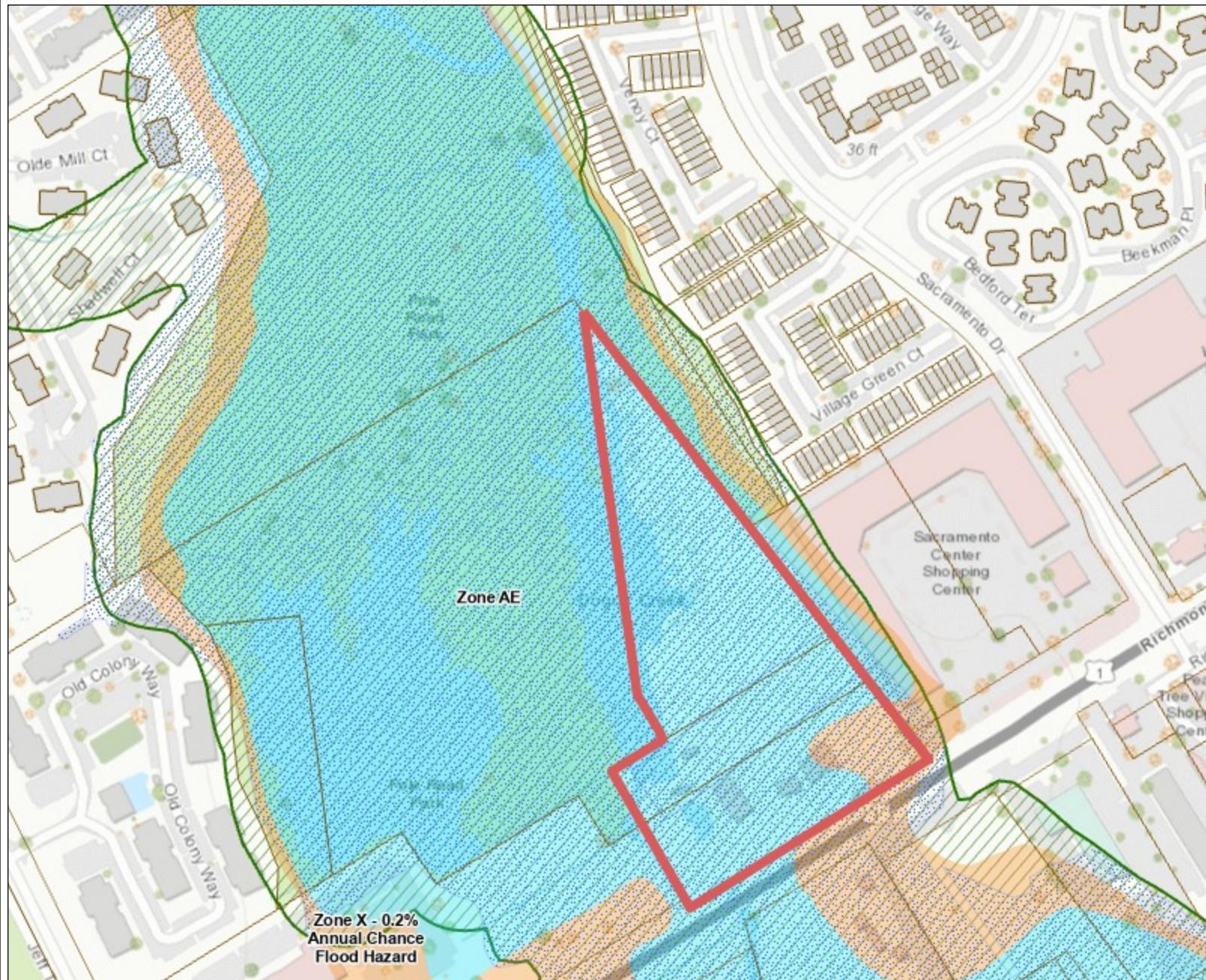


Wendy Howard Cooper, Director  
Dam Safety and Floodplain Management

cc: Darryl Glover, DCR



8800 Richmond Highway, Alexandria, VA 22309



0

752

1,505 Feet

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.



#### Legend

- Parcels
- Flood Plain Recorded
- FEMA Flood Hazard Areas**
  - Zone A Without Base Flood Elevation AH With BFE
  - Regulatory Floodway
  - Zone X - 0.2% Annual Chance Flood Hazard
  - Zone X - Area With Reduced Flood
- Resource Protection Areas**
  - 1993 RPAs
  - 2003 RPAs
  - 2003 (Rev) RPAs

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette



77°8'2"W 38°43'25"N



Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

### SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee. See Notes. Zone X

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- ||||| Levee, Dike, or Floodwall

20.2 Cross Sections with 1% Annual Chance

17.5 Water Surface Elevation

8 - - - Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

OTHER FEATURES

- Digital Data Available
- No Digital Data Available
- Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/23/2023 at 3:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



## Benefit-Cost Calculator

V.6.0 (Build 20231011.1703 | Release Notes)

Attachment 13

## Benefit-Cost Analysis

Project Name: 8800 Richmond Highway



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Acquisition @ 38.7195380; -77.1283109		Riverine Flood	\$ 4,246,415	\$ 4,000,000	1.06	\$ 9,403,581	\$ 4,000,000	2.35
<b>TOTAL (SELECTED)</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>
<b>TOTAL</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>

### Property Configuration

<b>Property Title:</b>	Acquisition @ 38.7195380; -77.1283109
<b>Property Location:</b>	22309, Fairfax, Virginia
<b>Property Coordinates:</b>	38.7195380398629, -77.12831090070694
<b>Hazard Type:</b>	Riverine Flood
<b>Mitigation Action Type:</b>	Acquisition
<b>Property Type:</b>	Non-Residential Building
<b>Analysis Method Type:</b>	Modeled Damages

### Cost Estimation

Acquisition @ 38.7195380; -77.1283109

<b>Project Useful Life (years):</b>	100
<b>Project Cost:</b>	\$4,000,000
<b>Number of Maintenance Years:</b>	100 Use Default:Yes
<b>Annual Maintenance Cost:</b>	\$0

### Hazard Probabilities Parameters - Flood

Acquisition @ 38.7195380; -77.1283109

**Lowest Floor Elevation of the Property (ft):** 0

**Streambed Elevation at the Property Location (ft):** 0

**Use Default Recurrence Intervals:** Use Defau **No**

### Discharge

Acquisition @ 38.7195380; -77.1283109

#### BEFORE MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

#### AFTER MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

## Estimated Annual Damages by Category

Acquisition @ 38.7195380; -77.1283109

## Before Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## After Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## Building Information

Acquisition @ 38.7195380; -77.1283109

**Non-Residential Occupancy Type:** Select Non-Residential Building Use**Building Type:****Building Is Engineered:** No**NFIP:** No

## Standard Benefits - Building

Acquisition @ 38.7195380; -77.1283109

**Depth Damage Curve:** Use Default:Yes**Building Size (sq.ft):** 0**Building Replacement Value (BRV) (\$/sq.ft):** \$100 Use Default:Yes**Demolition Threshold (%):** 50.00% Use Default:Yes**Expected Annual Losses due to Building Damages before Mitigation:** \$0**Expected Annual Losses due to Building Damages after Mitigation:** \$0**Expected Annual Benefits - Building:** \$0

## Depth Damage Curve - Building

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION				AFTER MITIGATION			
	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)

## Standard Benefits - Contents

Acquisition @ 38.7195380; -77.1283109

<b>Contents Value in Dollars:</b>	\$0	Use Default:Yes
<b>Expected Annual Losses due to Content Damages before Mitigation:</b>	\$0	
<b>Expected Annual Losses due to Content Damages after Mitigation:</b>	\$0	
<b>Expected Annual Benefits - Content:</b>	\$0	

## Depth Damage Curve - Contents

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Percent (%)	Damage Value (\$)	Percent (%)	Damage Value (\$)

## Standard Benefits - Displacement

Acquisition @ 38.7195380; -77.1283109

<b>Monthly Displacement Cost (\$/sq.ft/month):</b>	0	Use Default:Yes
<b>One-Time Displacement Cost (\$/sq.ft):</b>	0	Use Default:Yes
<b>Expected Annual Losses due to Displacement Damages before mitigation:</b>	\$0	
<b>Expected Annual Losses due to Displacement Damages after Mitigation:</b>	\$0	
<b>Expected Annual Losses - Displacement:</b>	\$0	

## Depth Damage Curve - Displacement

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Loss of Function/Loss of Income

Acquisition @ 38.7195380; -77.1283109

<b>Annual Operating Budget:</b>	\$0
<b>Loss of Function/Loss of Income Per Day:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income before mitigation:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income after mitigation:</b>	\$0
<b>Expected Annual Benefits - Expected Annual Benefits - Loss of Function/Loss of Income:</b>	\$0

Depth Damage Curve - Loss of Function/Loss of Income  
Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Street Maintenance Costs

Acquisition @ 38.7195380; -77.1283109

Total Annual Street Maintenance Budget (\$): \$0

Number of Street Miles Maintained: 0

Street Miles that will not require future maintenance: 0

Expected Annual Street Maintenance Benefits: \$0

## Standard Benefits - Volunteer Costs

Acquisition @ 38.7195380; -77.1283109

Number of Volunteers (volunteers/event): 0

Number of Days of Lodging: 0

Expected Annual Volunteer Benefits: \$0

## Standard Benefits - Ecosystem Services

Acquisition @ 38.7195380; -77.1283109

Total Project Area (acres): 8

Percentage of Urban Green Open Space: 0.00%

Percentage of Rural Green Open Space: 0.00%

Percentage of Riparian: 100.00%

Percentage of Coastal Wetlands: 0.00%

Percentage of Inland Wetlands: 0.00%

Percentage of Forests: 0.00%

Percentage of Coral Reefs: 0.00%

Percentage of Shellfish Reefs: 0.00%

Percentage of Beaches and Dunes: 0.00%

Expected Annual Ecosystem Services Benefits: \$297,592

**Benefits-Costs Summary**

Acquisition @ 38.7195380; -77.1283109

**Total Standard Mitigation Benefits:** \$4,246,415**Total Social Benefits:** \$0**Total Mitigation Project Benefits:** \$4,246,415**Total Mitigation Project Cost:** \$4,000,000**Benefit Cost Ratio - Standard:** 1.06**Benefit Cost Ratio - Standard + Social:** 1.06

Applicants must have prior approval from the Department to submit applications, forms, and supporting documents by mail in lieu of the WebGrants portal.

## Appendix A: Application Form for Grant and Loan Requests for All Categories

---

Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

Name of Local Government:

Category Being Applied for (check one):

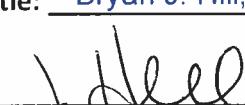
Capacity Building/Planning

Project

Study

NFIP/DCR Community Identification Number (CID) 515525

Name of Authorized Official and Title: Bryan J. Hill, County Executive

Signature of Authorized Official: 

Mailing Address (1): 12000 Government Center Parkway

Mailing Address (2): Suite 552

City: Fairfax State: VA Zip: 22035

Telephone Number: (703) 324-2531 Cell Phone Number: ( ) NA

Email Address: CEXBryanHill@fairfaxcounty.gov

Contact and Title (If different from authorized official): Joni Calmbacher

Mailing Address (1): 12000 Government Center Parkway

Mailing Address (2): Suite 449

City: Fairfax State: VA Zip: 22035

Telephone Number: (703) 324-5500 Cell Phone Number: (\_\_\_\_) NA

Email Address: Joni.Calmbacher@fairfaxcounty.gov

Is the proposal in this application intended to benefit a low-income geographic area as defined in the Part 1 Definitions? Yes        No X

**Categories (select applicable activities that will be included in the project and used for scoring criterion):**

**Capacity Building and Planning Grants**

- Floodplain Staff Capacity.
- Resilience Plan Development
  - Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans.
  - Resource assessments, planning, strategies, and development.
    - Policy management and/or development.
    - Stakeholder engagement and strategies.
- Other: \_\_\_\_\_

**Study Grants (Check All that Apply)**

- Studies to aid in updating floodplain ordinances to maintain compliance with the NFIP, or to incorporate higher standards that may reduce the risk of flood damage. This must include establishing processes for implementing the ordinance, including but not limited to, permitting, record retention, violations, and variances. This may include revising a floodplain ordinance when the community is getting new Flood Insurance Rate Maps (FIRMs), updating a floodplain ordinance to include floodplain setbacks, freeboard, or other

higher standards, RiskMAP public noticing requirements, or correcting issues identified in a Corrective Action Plan.

- Revising other land use ordinances to incorporate flood protection and mitigation goals, standards, and practices.
- Conducting hydrologic and hydraulic (H&H) studies of floodplains. *Changes to the base flood, as demonstrated by the H&H must be submitted to FEMA within 6 months of the data becoming available.*
- Studies and Data Collection of Statewide and Regional Significance.
- Revisions to existing resilience plans and modifications to existing comprehensive and hazard.
- Other relevant flood prevention and protection project or study.

**Project Grants and Loans (Check All that Apply – Hybrid Solutions will include items from both the “Nature-Based” and “Other” categories)**

**Nature-based solutions**

- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development, and where the flood mitigation benefits will be achieved as a part of the same project as the property acquisition.
- Wetland restoration.
- Floodplain restoration.
- Construction of swales and settling ponds.
- Living shorelines and vegetated buffers.
- Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia* Floodplain and Flooding Resilience layer or a similar data driven analytic tool, or the acquisition of developed land for future conservation.
- Dam removal.
- Stream bank restoration or stabilization.
- Restoration of floodplains to natural and beneficial function.

**Other Projects**

- Structural floodwalls, levees, berms, flood gates, structural conveyances.
- Storm water system upgrades.
- Medium and large-scale Low Impact Development (LID) in urban areas.

- Developing flood warning and response systems, which may include gauge installation, to notify residents of potential emergency flooding events.
- Dam restoration.
- Beneficial reuse of dredge materials for flood mitigation purposes
- Removal or relocation of structures from flood-prone areas where the land will not be returned to open space.
- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development, and where the flood mitigation benefits will not be achieved as a part of the same project as the property acquisition.
- Other project identified in a DCR-approved Resilience Plan.

**Location of Project or Activity (Include Maps):** 8800 Richmond Highway, Alexandria VA 22309

**NFIP Community Identification Number (CID#) :** 515525

**Is Project Located in an NFIP Participating Community?**  Yes  No

**Is Project Located in a Special Flood Hazard Area?**  Yes  No

**Flood Zone(s) (If Applicable):** FEMA Zone AE

**Flood Insurance Rate Map Number(s) (If Applicable):** 51059C0385E

**Total Cost of Project:** \$4,000,000

**Total Amount Requested** \$2,800,000

**Amount Requested as Grant** \$2,800,000

**Amount Requested as Project Loan (not including short-term loans for up-front costs)**  
N/A

**Amount Requested as Short-Term loan for Up-Front Costs (not to exceed 20% of amount requested as Grant)** N/A

**For projects, planning, capacity building, and studies in low-income geographic areas: Are you requesting that match be waived?**  Yes  No

**Additional Information for Loan Requests**

**Requested Loan Security:** N/A

(General Obligation, Lease, Revenue, Special Fund Revenue, and/or Moral obligation from other government entity)

**Desired loan term:** N/A

**Since the date of your latest financial statements, did the applicant issue any new debt?** N/A  
(If yes, provide details)

**Is there any pending or potential litigation by or against the applicant?** N/A

**Attach five years of current audited financial statements (FY18-22) or refer to website if posted**  
(Not necessary for existing VRA borrowers)

**Attach FY2024 adopted budget or refer to website**

**Attach current Capital Improvement Plan**

**Attach adopted Financial Policies**

**Attach a list of the ten largest employers in the Applicant's jurisdiction.**

**Attach a list of the ten largest taxpayers in the Applicant's jurisdiction**

Fairfax County: 8800 Richmond Highway Voluntary Land Acquisition  
 Community Flood Preparedness Fund &  
 Resilient Virginia Revolving Loan Fund

Detailed Budget Narrative

Period of Performance: Spring 2024 through Spring 2027  
 Submission Date: November 2023

								Grand Total State Funding Request	\$2,800,000
								Grand Total Local Share of Project	\$1,200,000
								Federal Funding (if applicable)	\$ -
								Project Grand Total	\$4,000,000
								Locality Cost Match	30%
Breakout By Cost Type	Personnel	Fringe	Travel	Equipment	Supplies	Contracts	Indirect Costs	Other Costs	Total
Federal Share (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,200,000	\$ -	\$ -	\$ 1,200,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,800,000.00	\$ -	\$ -	\$ 2,800,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000.00	\$ -	\$ -	\$ 4,000,000.00

## Appendix C: Checklist All Categories

(*Benefit-cost analysis must be included if the proposed Project is over \$2 million.*)

Virginia Department of Conservation and Recreation

Community Flood Preparedness Fund Grant Program

- 
- Detailed map of the project area(s) (Projects/Studies)
  - FIRMette of the project area(s) (Projects/Studies)
  - Historic flood damage data and/or images (Projects/Studies)
  - A link to or a copy of the current floodplain ordinance
  - Non-Fund financed maintenance and management plan for project extending a minimum of 10 years from project close
  - A link to or a copy of the current comprehensive plan
  - Social vulnerability index score(s) for the project area from VFRIS SVI Layer
  - If applicant is not a town, city, or county, letters of support from affected localities
  - Letter of support from impacted stakeholders
  - Budget Narrative
  - Supporting Documentation, including the Benefit-Cost Analysis tool/narrative (for projects over \$2 million)
  - Authorization to request funding from the Fund from governing body or chief executive of the local government

Signed pledge agreement from each contributing organization

Detailed budget and narrative for all costs

## Appendix D: Scoring Criteria

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Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

### SCORING CRITERIA PER CATEGORY

#### Projects

Eligible Projects, up to 30 points.

- Acquisition (30)
- Wetland/floodplain restoration, Construction of swales and settling ponds, Living shorelines and vegetated buffers, Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia*'s floodplain and flooding Resilience layer or a similar data driven analytic tool, Dam removal, Stream bank restoration or stabilization, Restoration of floodplains to natural and beneficial function. (25)
- Other nature-based approach (20)
- Hybrid approach resulting in nature-based solution (15)
- All other projects (10)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Community scale of benefits, up to 30 points.

- More than one census block (30)
- 50-100% of census block (25)
- 25-49% of census block (20)
- Less than 25% of census block (0)

Expected lifespan of project, up to 10 points.

- 10 -14 Years (3)
- 15 - 20 Years (5)
- Over 20 Years (10)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 10, no 0)

Proposed project implements a Chesapeake Bay TMDL BMP (yes 5, no 0)

### **Studies**

Revising floodplain ordinances to maintain compliance with the NFIP or to incorporate higher standards that may reduce the risk of flood damage, 30 points.

Creating tools or applications to identify, aggregate, or display information on flood risk or creating a crowd-sourced mapping platform that gathers data points about real-time flooding.

This could include a locally or regionally based web-based mapping product that allows local residents to better understand their flood risk, 25 points.

Conducting hydrologic and hydraulic studies of floodplains. Applicants who create new maps must apply for a Letter of Map Change through the Federal Emergency Management Agency (FEMA), 15 points.

Studies and Data Collection of Statewide and Regional Significance. Funding of studies of statewide and regional significance and proposals will be considered for the studies listed below, Up to 45 points.

- Updating precipitation data and IDF information (rain intensity, duration, frequency estimates) including such data at a sub-state or regional scale on a periodic basis. (45)
- Regional relative sea level rise projections for use in determining future impacts. (45)
- Vulnerability analysis either statewide or regionally to state transportation, water supply, water treatment, impounding structures, or other significant and vital infrastructure from flooding. (45)
- Flash flood studies and modeling in riverine regions of the state. (45)
- Statewide or regional stream gauge monitoring to include expansion of existing gauge networks. (45)
- New or updated delineations of areas of recurrent flooding, stormwater flooding, and storm surge vulnerability in coastal areas that include projections for future conditions based on sea level rise, more intense rainfall events, or other relevant flood risk factors. (45)
- Regional flood studies in riverine communities that may include watershed scale evaluation, updated estimates of rainfall intensity, or other information. (45)
- Regional hydrologic and hydraulic studies of floodplains. (45)
- Studies of potential land use strategies that could be implemented by a local government to reduce or mitigate damage from coastal or riverine flooding. (40)
- Other proposals that will significantly improve protection from flooding on a statewide or regional basis (35)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 10, no 0)

Proposed project implements a Chesapeake Bay TMDL BMP (yes 5, no 0)

### **Capacity Building and Planning**

Eligible Capacity Building and Planning Activities. Up to 100 points.

Development of a new resilience plan (95)

Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans (60)

Resource assessments, planning, strategies, and development (40)

Policy management and/or development (35)

Stakeholder engagement and strategies (35)

Goal planning, implementation, and evaluation (25)

Long term maintenance strategy (25)

Other proposals that will significantly improve protection from flooding on a statewide or regional basis approved by the Department (15)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Community scale of benefits, up to 30 points.

- More than one census block (30)
- 50-100% of census block (25)
- 25-49% of census block (20)
- Less than 25% of census block (0)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 5, no 0)

# FAIRFAX COUNTY

## Richmond Highway Voluntary Land Acquisition

Virginia Community Flood Preparedness Fund

F2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-1 (Richmond Hwy)



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## Attachments

- Attachment 1. Staff Report for Plan Amendment 2018-IV-MV2
- Attachment 2. Staff Report Addendum for Plan Amendment 2018-IV-MV2
- Attachment 3. 8800 Richmond Highway Planned Land Use
- Attachment 4. Fairfax County Fiscal Year 2024 Stormwater Budget
- Attachment 5. Request for funding authorization
- Attachment 6. Resilient Fairfax Goal AE.1
- Attachment 7. Fairfax County Floodplain Management Plan Progress Report
- Attachment 8. Virginia Flood Risk Information System Social Vulnerability Index
- Attachment 9. Property Sales Listing
- Attachment 10. Fairfax County Resilience Plan Approval
- Attachment 11. Project Detailed Map
- Attachment 12. FEMA National Flood Hazard Layer FIRMette
- Attachment 13: Benefit-Cost Analysis

## Appendices

- Appendix A
- Appendix B
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## Executive Summary

Fairfax County is applying for grant assistance under the Virginia Department of Conservation and Recreation (DCR) Community Flood Preparedness Fund (CFPF) Round 4 ‘Project’ category to help voluntarily acquire a property located in the 100-year floodplain for permanent conservation. The project, *Richmond Highway Voluntary Acquisition*, includes the purchase of three partially developed parcels and the restoration of natural features to restore the riparian buffer and floodplain functions.

DCR approved the County’s Resilience Plan on January 10, 2022. The County has integrated flood mitigation and resilience goals across areas of the local government, with flood resilience a priority addressed holistically through watershed and countywide comprehensive planning. The County has established requirements for development controls in the floodplain through zoning and the local floodplain ordinance. To address recent repetitive floodings, the County is in the process of preparing a draft flood risk reduction plan. The County is also developing a comprehensive regulated floodplain map to assess and implement future projects.

The proposed project meets the County’s ambitious comprehensive plan goals by transforming a partially developed property in the floodplain and resource protection area into conserved open space that can serve as a park amenity to the surrounding underserved communities.

### A. Scope of Work Narrative

#### 1. Project Information

8800 Richmond Highway, Alexandria, VA 22309, is an approximately eight-acre area of land in the Mount Vernon Magisterial District comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. The subject area is bounded by Richmond Highway to the south, the Woodlawn Community Business Center (CBC) to the east, and Dogue Creek to the west and north, as shown in Figure 1. Pole Road Park is adjacent to the subject area to the north and west. Parcel 20, approximately 2.5 acres in size, fronts Richmond Highway, is zoned C-8 Highway Commercial District, and is partially developed with a welding operation. Parcels 19 and 18C, approximately 1.2 and 4.2 acres in size, respectively, are located north of Parcel 20. These parcels are zoned R-2 Residential District (two du/ac), and are vacant, but contain remnants of a gravel surface parking lot used for vehicle storage (see Figures 2 and 3). The majority of all three parcels are located in the 100-year floodplain.

Under the current comprehensive plan, the property is planned as private open space, but there are continued attempts to redevelop the site. In 2018, the County Board of Supervisors authorized consideration of a Plan Amendment to evaluate residential use at a density up to eight dwelling units per acre. Ultimately, County staff did not support the Plan Amendment citing the environmental and risk concerns of placing residential buildings in the floodplain and the Plan Amendment was deferred indefinitely. The Plan Amendment staff report and addendum are provided as Attachments 1 and 2 at the end of this application. Most recently, a car dealership has expressed interest in using the property for vehicle storage and a future dealership site.

The property owners support the voluntary acquisition of the property by Fairfax County. Selling to Fairfax County involves less risk than selling for redevelopment that would likely be

contingent on the rezoning application approval. The County would restore the stream natural buffer with native landscaping, provide tree plantings and preservation, and conduct invasive plant management. The County would place a conservation easement over the three parcels and ultimately transfer them to the Fairfax County Park Authority to expand Pole Road Park. Pole Road Park is a county-owned park that is generally preserved as a conservation area with limited recreational amenities and some trails. The park is connected by Dogue Creek to the Jackson M. Abbott Wetland Refuge.

*Figure 1: Property Environmental Features*



*Figures 2 & 3: Aerial view of 8800 Richmond Highway*



### *Population*

Fairfax County has a population of about 1.17 million. The project is located within Census Block 421800-1000 (population 2,214) and bordered by Census Blocks 421800-1003 (population 2,314) and 416100-1008 (population 2,552). In total, 7,080 residents will have direct access to this future park space, with thousands more within walking distance of the amenity. Presently,

communities along Richmond Highway cannot access Pole Road Park because access is blocked by this property.

#### *Historic Flooding Data and Hydrologic Studies*

The property is located almost entirely within the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area Zone AE (Figure 4). Additionally, the Richmond Highway bridge over Dogue Creek adjacent to the property is known as a frequently flooded road site (Figure 5).

*Figure 4: National Flood Hazard Layer FIRMette*

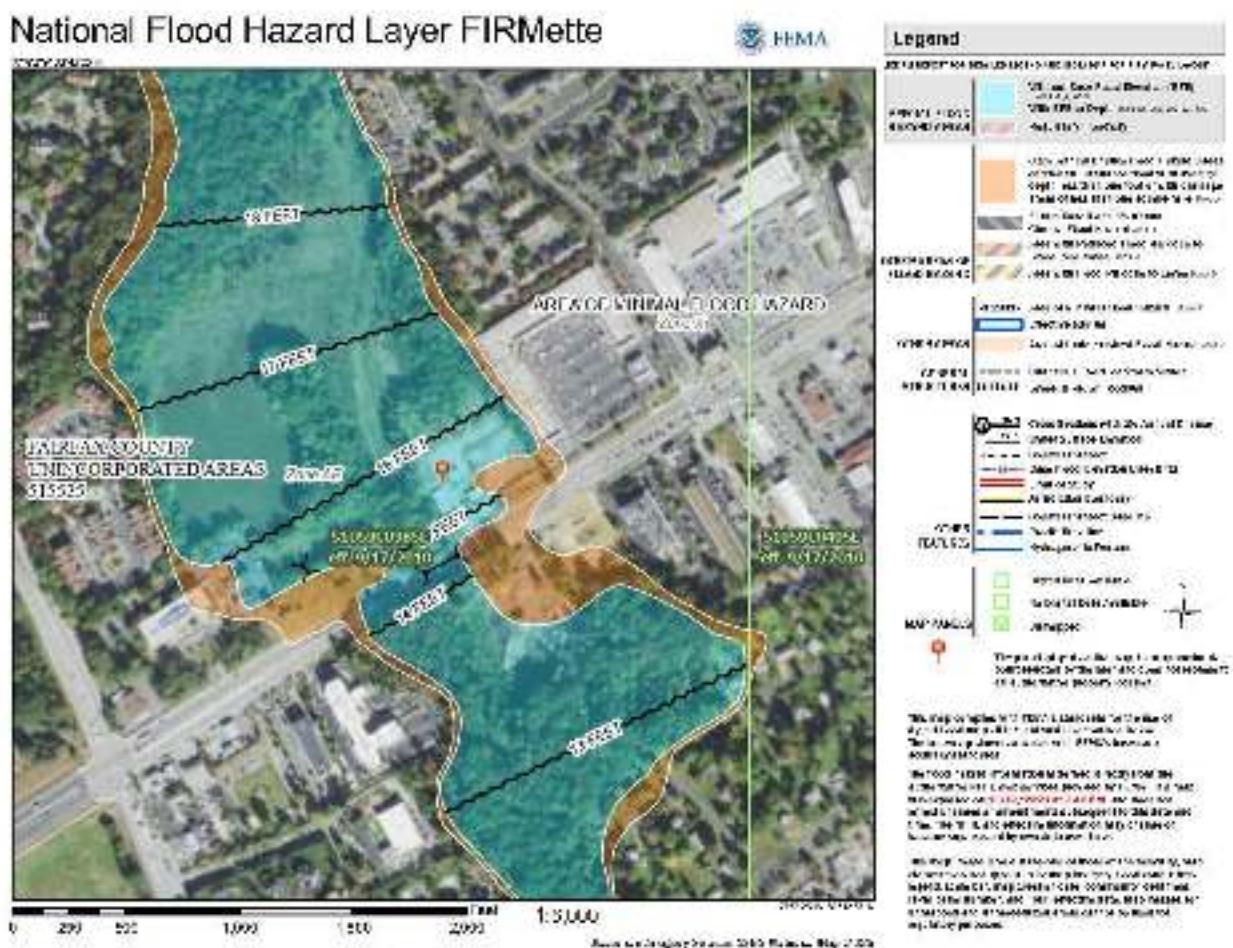


Figure 5: Fairfax County Frequently Flooded Road Sites



### *Local Government Cost Share*

Voluntary acquisition of the property meets the planned land use of the [2017 Mount Vernon Comprehensive Plan](#). It is currently anticipated that the County's cost-share would be provided through Stream and Water Quality Improvements under Fund 40100 Stormwater Services in the Fairfax County Fiscal Year 2024 budget (see Attachment 3 for the comprehensive plan land use, Attachment 4 for County budget document, and Attachment 5 for a match authorization letter from the County Executive.)

### *County Floodplain Management Regulations*

Fairfax County, CID #515525, is listed in FEMA's Community Status Book Report as a community participating in the National Flood Insurance Program (NFIP). In addition, Fairfax County participates in the Community Rating System (CRS) and received a Class 6 rating in the most recent verification process. Floodplains are regulated under article 5104 of the county's Zoning Ordinance. The Zoning Ordinance is included in the link below:

<https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251>

Fairfax County regulates proposed uses and disturbances in the 100-year flood inundation area associated with all channels or conveyance systems that have a contributing drainage area of 70 acres or more. Currently, existing floodplain boundaries and water surface elevations are available from several sources and a significant portion of regulated floodplain is not mapped.

A separate effort to develop a comprehensive regulated floodplain map is currently underway.

Based on the 2010 mapping of the Special Flood Hazard Areas (SFHAs) by FEMA, the property is located almost entirely within Zone AE.

### *Project Priority*

#### *Flood Damage*

This project is prioritized in the Mount Vernon District due to continued redevelopment pressure. While the locality allows redevelopment within the floodplain in accordance with the County floodplain management regulations (see above), Fairfax County would prefer the site be converted to preserved open space. The open space meets several County priorities, including the expansion of green space in and adjacent to historically underserved communities, increased resiliency to heat and flood risks associated with climate change, and improved ecological conditions with local stream valleys. While there is no record of structural flooding on the property, the adjacent Richmond Highway bridge over Dogue Creek adjacent to the property is known as a frequently flooded road site (see Figure 5 above).

#### *Project Area Structures and Critical Facilities*

Currently the property includes two one-story commercial structures. The objective of the voluntary land acquisition is to prevent the redevelopment of the property with new structures that may be prone to future flooding due to the uncertainty of climate change and the potential for more frequent high-intensity short-duration events exceeding the 100-year storm.

## 2. Need for Assistance

### *Financial and Staff Resources*

The Stormwater Services Emergency and Flood Response Projects program supports flood control projects for unanticipated flooding events that impact storm systems and structural flooding. The program provides annual funding for scoping, design, and construction activities related to flood mitigation projects, but does not currently include funding for voluntary acquisition of flood-prone properties. Fairfax County's advertised Fiscal Year 2024 Stormwater Services budget includes \$7.0 million for emergency and flood response projects (see Figure 6), but there is an estimated total cost of \$43.9 million for active flood mitigation projects. With the increase in the frequency and intensity of storms due to climate change, we expect the number of flood mitigation projects to grow, and the associated project design and construction costs will extend well beyond what the county's current emergency and flood response program can support.

The Resilient Fairfax Plan Goal AE.1 strategy encourages surveying and protecting areas that provide Natural Resilience Benefits (Attachment 6). The Fairfax County Floodplain Management Plan also recommends using permanent easements to prevent development in the high priority undeveloped floodplain areas (Attachment 7). Other than federal FEMA grant programs, there is currently no County designated funding source for voluntary acquisition of flood-prone properties to meet the County's climate resiliency and floodplain management goals. This project will serve as a model for the potential future development of a voluntary land acquisition program.

*Figure 7. Fiscal Year 2024 Adopted Budget- Stormwater Services Summary of Capital Projects*

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000	6,000,000
Dam Safety and Facility Rehabilitation (SD-000033)	68,576,104	5,039,029.28	12,188,745.52	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,546.30	82,119,862.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>

### *Low Income Geographic Areas*

The project does not fall in a low-income geographic area.

### *Vulnerability Index*

Based on the Virginia Flood Risk Information System (VFRIS) Social Vulnerability Index, the project is not in a socially vulnerable area; however, several of the adjacent census blocks within walking distance to the site receive very high scores (Attachment 8).

According to data provided by the [Fairfax County Vulnerability Index](#), the census block is rated as ‘highly vulnerable’ with a median household income of \$62,679 which is half the county average as well as a lower-than-average educational attainment and a high percentage of non-English speakers. The Fairfax County Park Authority notes that the area scores high on the Park

Authority's Racial Equity Index (PAREI) because it is both a vulnerable and high-density population.

#### *Alternatives*

Several alternative options for the 8800 Richmond Highway property have already been proposed, but every alternative includes redevelopment of the flood-prone property. The most detailed option is documented in the Plan Amendment 2018-IV-MV2 staff report and addendum (Attachments 1 and 2) to rezone the property for residential use at a density up to eight dwelling units per acre. This alternative goes against a long-standing County policy to prohibit new residential structures in flood impact hazard areas and protect and restore environmental quality corridors along streams. The property is currently listed for sale (see Attachment 9) and a car dealership expressed interest in purchasing the parcels for vehicle storage and future development as a car dealership. There is also by-right development potential on the commercial parcels closest to Richmond Highway making these easier to develop with strip commercial uses.

### 3. Goals and Objectives

The following are the primary goals and objectives of the project:

- Enhance the broader natural and built environment networks within the Mount Vernon Richmond Highway corridor by purchasing and restoring property within the Dogue Creek 100-year floodplain.
- Protect downstream estuary by preventing mobilization of sediment from adjacent wetland in the event of redevelopment.
- Address public safety concerns by removing property within the 100-year floodplain from potential future redevelopment.
- Provide a vital connection for vulnerable communities that lack park access to Pole Road Park as shown in Figure 8.

*Figure 8: 8800 Richmond Highway Trail Connection to Pole Road Park  
(source: Fairfax County Comprehensive Plan)*



#### 4. Approach, Milestones, and Deliverables

Upon grant approval, project activities will begin immediately, and the County will conduct the property acquisition process. The County would utilize an on-call consultant to complete a demolition and restoration plan for the site. The property would also be permanently protected as open space through a conservation easement. See Table 1 for a more detailed outline of the tasks and anticipated durations.

*Table 1: Project Schedule*

DURATION	TASK DESCRIPTION
<b>Begin to Month 6*</b>	Complete negotiation to purchase the property and complete the land acquisition process. Begin demolition and restoration plan for the site.
<b>Month 6 to 12</b>	Complete design and start permitting and procurement for structure demolition. Record permanent conservation easement.
<b>Month 12 to 18</b>	Complete demolition of structures and appurtenances and select on-call contractor for site restoration.
<b>Month 18 to 24*</b>	Complete site restoration, including stream restoration and native planting and landscaping.
<b>Month 24 to 29</b>	Transfer property to the Fairfax County Park Authority.

\*Milestone

The milestones for the project include: (1) the voluntary acquisition of the property; and (2) the completion of the site demolition and restoration.

Project deliverables include acquisition of the property, recordation of the conservation easement, and demolition and restoration of the site.

## 5. Work Plan

Major Tasks	Responsible Party	Timeframe	Partners
Voluntary Acquisition of Property	County	6 months from grant award and acceptance	Property Owner
Start permitting, procurement for structure demolition, and record conservation easement	County	Within 6 months of property acquisition	N/A
Complete Demotion and Begin Site Restoration	Contractor and County	Within 12 months of property acquisition	N/A
Complete Site Restoration	Contractor and County	6 months from completion of structure demolition	Fairfax County Park Authority
Transfer Property to FC Park Authority	County	Within 5 months of completion of site restoration	Fairfax County Park Authority

## 6. Relationship to Other Projects

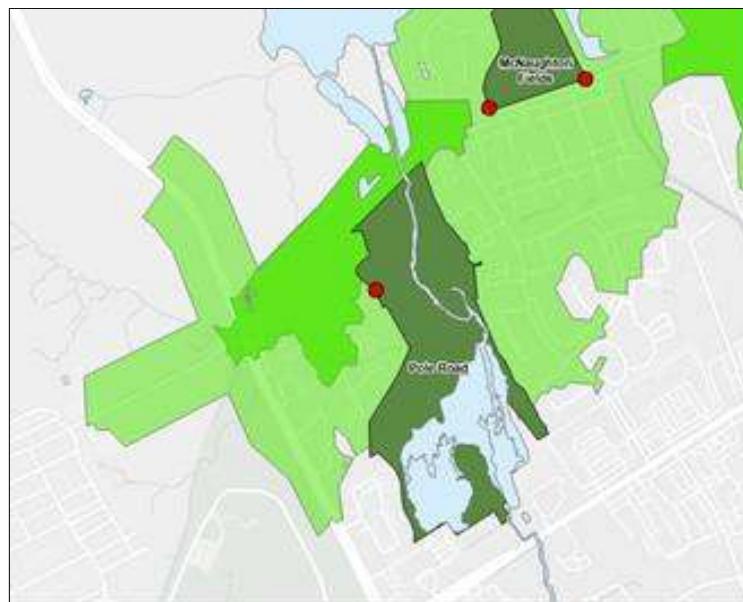
The voluntary acquisition and restoration of 8800 Richmond Highway will fill a vital gap within the Dogue Creek stream valley. The property will provide a connection from Richmond Highway to Pole Road Park as seen in Figure 8 providing important access to parks for residents who live along the

highway corridor. The property is also directly upstream of two active stream and floodplain restoration projects. As a part of the Richmond Highway Corridor Improvements project, the Virginia Department of Transportation (VDOT) will replace the existing Richmond Highway bridge over Dogue creek and stabilize and restore the corresponding section of Dogue Creek. More information on the bridge replacement and stream work can be found on the project website: [Richmond Highway Corridor Improvements in Fairfax County - Projects | Virginia Department of Transportation \(virginiadot.org\)](https://www.virginiadot.org/Projects/Richmond_Highway_Corridor_Improvements_in_Fairfax_County.aspx). In coordination with VDOT, Fairfax County will restore the section of Dogue Creek downstream of the Richmond Highway bridge to Old Mill Road. The Dogue Creek at Old Mill Road stream restoration is currently in design and more information can be found on the project webpage: [Dogue Creek at Old Mill Road | Public Works and Environmental Services \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/public-works-and-environmental-services/dogue-creek-at-old-mill-road).

These projects tie into the greater County vision for the Woodlawn Community Business Center (CBC) as detailed in the Mount Vernon Comprehensive Plan (Plan). The Plan envisions the creation of coordinated, transit-oriented places that highlight and strengthen the historical and ecological attributes of the Richmond Highway corridor; a new network of parks and open spaces; and pedestrian-scaled mixed-use development to form a series of vibrant, well-connected places that will contribute to the greater Richmond Highway community. As one of the six nodes in the Richmond Highway Corridor, the Woodlawn CBC is envisioned to evolve as a transit-oriented, mixed-use village and tourist hub served by a planned bus rapid transit (BRT) system. As described in the adopted Plan guidance, the Woodlawn CBC is planned for approximately 1,020 dwelling units, envisioned as townhomes and multifamily units, and 887,000 gross square feet of non-residential uses, or roughly 2,614 jobs based on square feet per job conversion factors for different types of planned non-residential uses (office, retail, and hotel). The full Plan can be found here: [2017 Edition of the Comprehensive Plan - Mount Vernon Planning District \(fairfaxcounty.gov\)](https://www.fairfaxcounty.gov/planning-development/comprehensive-plans/mount-vernon-comprehensive-plan).

The PROSA Strategy, which was endorsed by the Park Authority Board in September 2023, is the Park Authority's data-driven approach and framework to provide a countywide roadmap for improved park access, a balance of recreational experiences, bolster habitat connectivity, and prioritize recreation needs and projects with an equity lens to meet the diverse needs of Fairfax County residents. Two key elements of PROSA are improving ten-minute walk access to parks and prioritizing park and recreation needs with an equity lens. Acquisition, restoration, and ultimate dedication of 8800 Richmond Highway as park space plays a key role in increasing access to underserved communities in vicinity of property (see Figure 9).

*Figure 9: Ten-minute Walk Shed to a Park Entrance in the Vicinity of 8800 Richmond Highway (source: Fairfax County Park Authority) Note: County parks are in dark green, ten-minute walk sheds are in light green, and park entrances are the red dots.*



The acquisition and inclusion of 8800 Richmond Highway will provide important linkage and additions to these connected corridor improvement projects. The restored floodplain will provide additional storage capacity to reduce local flooding. The restoration of the channel section on-site will prevent large amount of sediment currently sitting in the wetland pool on the property from being mobilized by erosive stream flows, thus protecting the downstream estuary. The stream restoration will also improve fish passage for local but also anadromous and catadromous species from the Dogue Creek tidal estuary upstream to Pole Road Park, Jackson Abbot Wildlife Refuge and Huntley Meadows Park. This restored corridor along with the planned county stream restoration and Richmond Highway improvements, will improve linkage not only for the human inhabitants, but for floral and faunal wildlife species. The restored floodplain will buffer and expand adjacent wetlands and provide greatly improved native plant biomass, thus improving carbon sequestration functions and supporting biodiversity.

## 7. Maintenance Plan

Fairfax County has a dedicated maintenance program. The Maintenance and Stormwater Management Division (MSMD) maintains all public stormwater infrastructure and facilities, including stream buffer restoration and reforestation projects. Since this project will be constructed by the county, it will be maintained by MSMD. An official post construction maintenance plan will be developed during the design phase of the site demolition restoration.

## B. Scoring Criteria

Appendix D is completed and included in the Appendix section at the end of this application.

1. Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the

General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these or a recognized state or federal Indian tribe?

*The applicant (Fairfax County) is a local jurisdiction in the Commonwealth of Virginia*

2. Does the local government have an approved resilience plan meeting the criteria as established by this grant manual? Has it been attached or a link provided?  
*The County has an approved resilience plan (see Attachment 10)*
3. For local governments that are not towns, cities, or counties, have letters of support been provided from affected local governments?  
*This criterion is not applicable. The applicant is a local jurisdiction.*
4. Has the applicant provided evidence of an ability to provide the required match funds?  
*The match funds for the project are included in the adopted Fiscal Year 2024 CIP for Stream and Water Quality Improvement Projects (see Attachment 5).*
5. Has the applicant demonstrated, to the extent possible, the positive impacts of the project or study on prevention of flooding?  
*The main objective of this project is to purchase three partially developed parcels in the 100-year floodplain, restore the riparian buffer and floodplain functions, and convert the property to conserved open space.*

#### SUPPORTING DOCUMENTATION

Scope of Work Narrative	
Documents	Link or Attachment
Detailed map of the project area	Attachment 11
FIRMette of the project area	Attachment 12
Historic flood damage data/image	Figure 5 above
Link to the current floodplain ordinance	<a href="https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251</a>
No-fund maintenance and management plan	Described in maintenance plan above
Copy of the current hazard mitigation plan	<a href="https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan_combined.pdf">https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/assets/documents/2022%20northern%20virginia%20hazard%20mitigation%20plan_combined.pdf</a>
Copy of the current comprehensive plan	<a href="https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf">https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/area4/mtvernon.pdf</a>
Social vulnerability index score(s) for the project area from <a href="https://consapps.dcr.virginia.gov/VFRIS/">https://consapps.dcr.virginia.gov/VFRIS/</a>	Attachment 8

Completed Scoring Criteria Sheet Appendix A, B, C, D	Included in Appendices at the end of the application
Census Block(s)	421800-1000, 421800-1003, and 416100-1008

## C. Budget Narrative

### 1. Estimated Total Project Cost

The total project cost for acquisition and restoration of the site is \$4,000,000.

#### **Estimated total project cost: \$4,000,000**

Estimated Land Acquisition Cost: \$3,500,000

Estimated Design Cost: \$50,000

Estimated Demolition and Restoration Cost: \$450,000

See Attachment 9 for the active property sales listing. The listing reflects the non-negotiated price and does not consider the land use and environmental constraints on the property. The County is currently completing an assessment of the three parcels and it is assumed the County will be able to negotiate the final property cost based on its assessed value. If the negotiated value exceeds \$3,500,000, Fairfax County will fund the difference in addition to the local match.

### 2. Funds Requested

The County requests \$2,800,000 from the Fund. 100% of this grant will be applied to the acquisition and restoration of the property.

### 3. Available Funds

Funds for the cost-share are available in *Stream and Water Quality Improvements* under Fund 40100 Stormwater Services in the advertised Fairfax County Fiscal Year 2024 budget (Attachment 4).

See Attachment 5 for the Letter from the County Executive, Bryan Hill, confirming the necessary match for this application and the other three applications submitted by the County for the 2023 application cycle.

### 4. Benefit Cost Analysis

The proposed project is over \$2,000,000, so a benefit-cost analysis is included as Attachment 13. Using the FEMA Benefit-Cost Calculator V.6.0, the Benefit Cost Ration (BCR) using the 7% discount rate is 1.06. The BCR using the 3% discount rate is 2.35.

## D. Conclusion

The proposed project meets the County's ambitious comprehensive plan goals by transforming a partially developed property in the floodplain and resource protection area into conserved open space that can serve as a park amenity and trail connection to the surrounding socially vulnerable neighborhoods. Voluntary acquisition of property in the 100-year floodplain meets

multiple County priorities, as identified in the Resilient Fairfax and Floodplain Management Plan and complements existing downstream stream restoration projects currently in design. This project will serve as a model for the potential future development of a voluntary land acquisition program.



## PROPOSED COMPREHENSIVE PLAN AMENDMENT

ITEM: PA 2018-IV-MV2  
July 5, 2018

**GENERAL LOCATION:** North of Richmond Highway, west of Sacramento Center, east of Pole Road Park

**SUPERVISOR DISTRICT:** Mount Vernon

**PLANNING AREA:** Area IV

**PLANNING DISTRICT:**  
Mount Vernon Planning District

**SUB-DISTRICT DESIGNATION:**  
Richmond Highway Corridor Area,  
MV8 Woodlawn Community Planning Sector

**PARCEL LOCATION:** 109-2 ((1)) 18C, 19, and 20

For additional information about this amendment call (703) 324-1380.

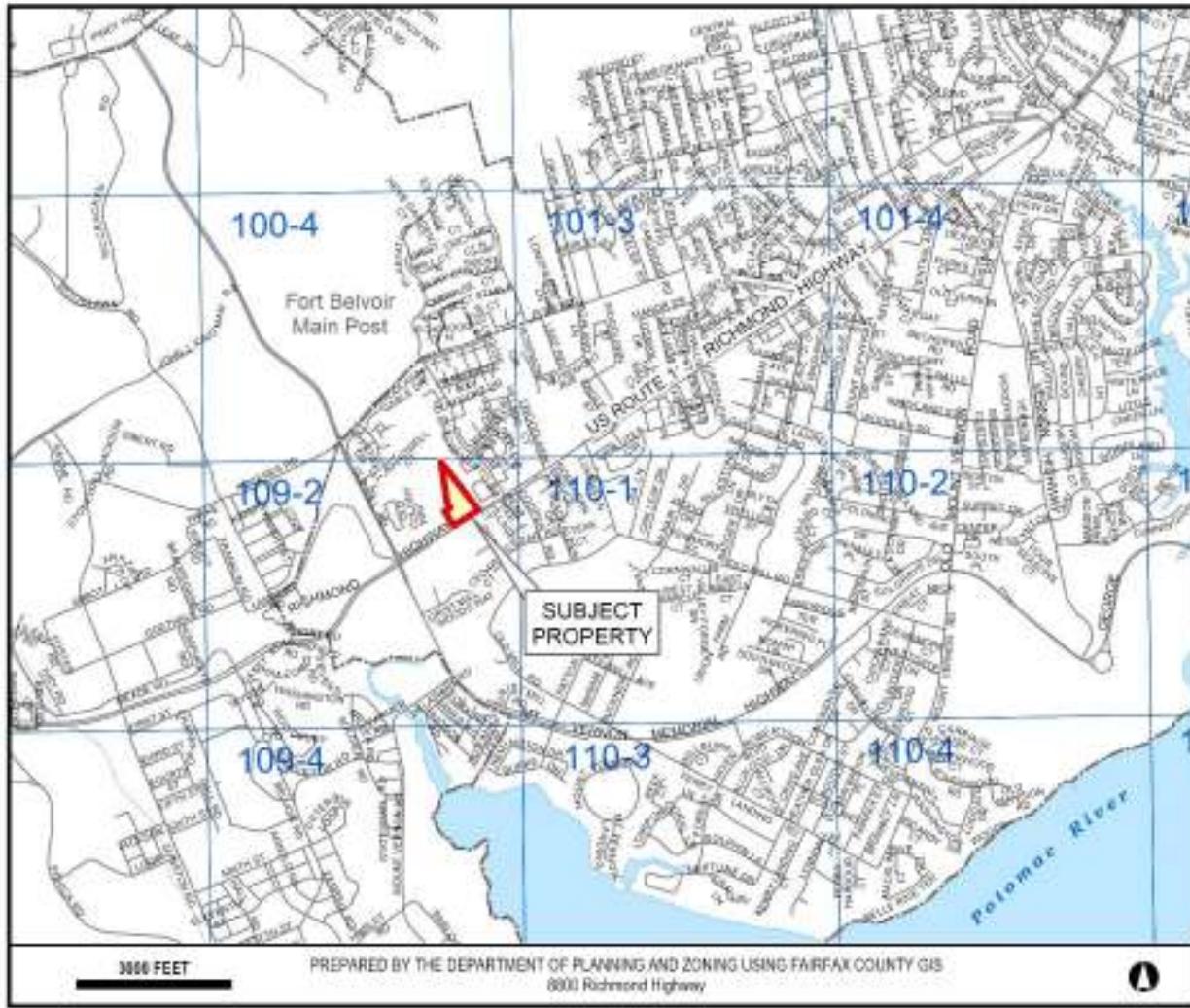
**PLANNING COMMISSION PUBLIC HEARING:**  
Thursday, July 19, 2018 @ 7:30 PM

**BOARD OF SUPERVISORS PUBLIC HEARING:**  
Tuesday, September 25, 2018 @ 4:00 PM

**PLANNING STAFF DOES NOT RECOMMEND**  
**THIS ITEM FOR PLAN AMENDMENT**



Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.

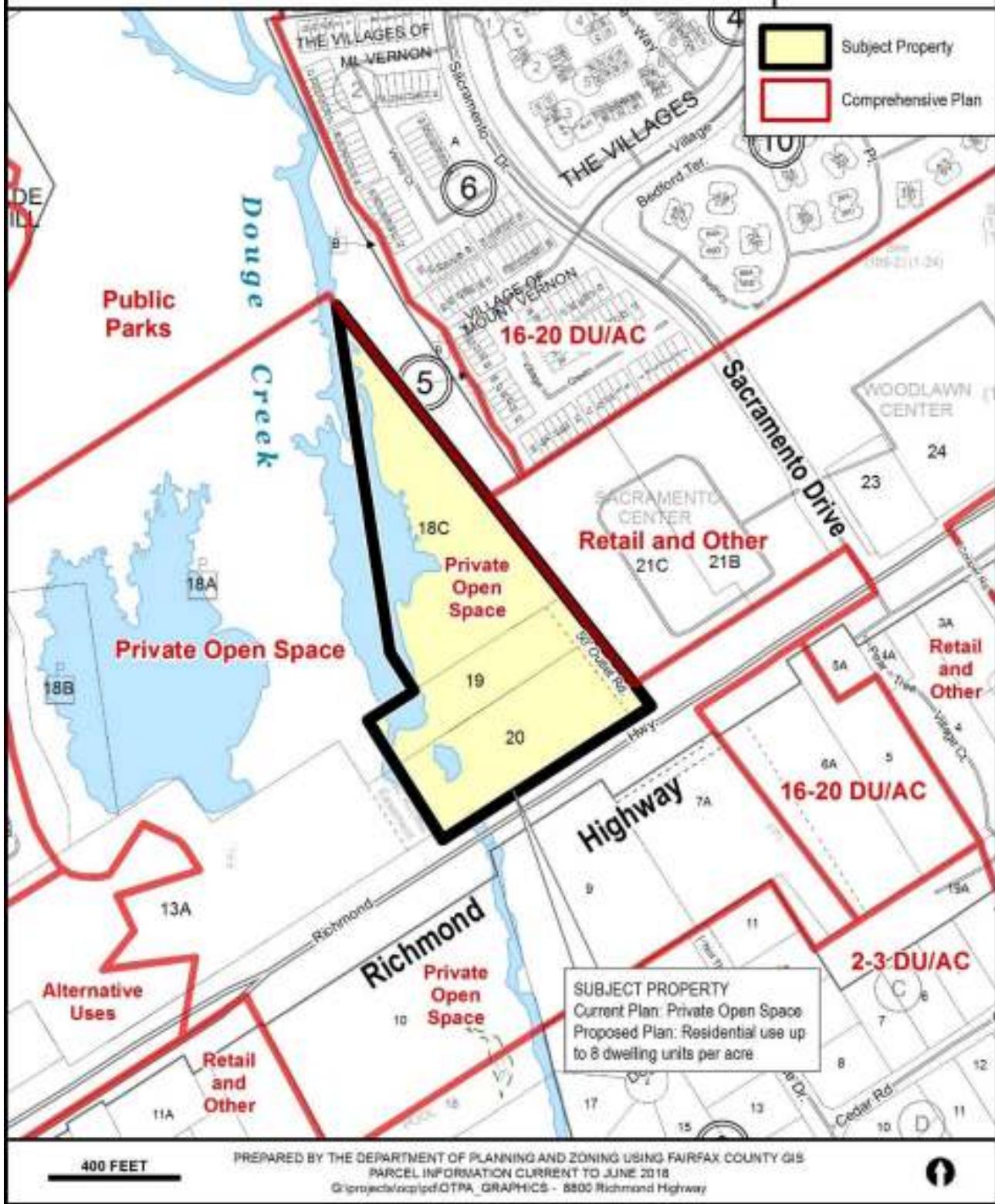


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CURRENT PLAN AND PROPOSED CHANGE

PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

ITEM:  
PA 2018-IV-MV2



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## **STAFF REPORT FOR PLAN AMENDMENT 2018-IV-MV2**

8800 Richmond Highway

### **BACKGROUND**

On March 6, 2018, the Board of Supervisors (Board) authorized a Comprehensive Plan amendment (amendment number 2018-IV-MV2), requesting that staff evaluate residential use at a density up to 8 dwelling units per acre (du/ac) for an approximately eight-acre area located at 8800 Richmond Highway. The subject property is currently planned for private open space. In addition to evaluating residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform with Policy Plan guidance on Environmental Quality Corridors (EQCs), including the demonstration of any circumstances that merit disturbance to the EQC, and the provision of mitigation/compensation measures resulting in a net environmental benefit to the parcels and net benefits relating to most, if not all, the objectives of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed redevelopment to be consistent with the Virginia Department of Transportation (VDOT) widening of Richmond Highway.

The subject area is comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. Two related requests are being evaluated concurrently. Rezoning and Final Development Plan application RZ/FDP 2016-MV-018 requests rezoning the property to allow for the development of approximately 43 townhomes (at the time of staff report publication). Special exception application SE 2016-MV-016 requests filling in the floodplain for residential use. A related exception application pursuant to the Chesapeake Bay Preservation Ordinance (Chapter 118 of the Fairfax County Code) is requested to permit proposed disturbances to a Resource Protection Area (RPA).

### **CHARACTER OF THE SUBJECT AREA AND SURROUNDING AREA**

The subject area is bounded by Richmond Highway to the south, the Woodlawn Community Business Center (CBC) to the east, and Dogue Creek to the west and north, as shown in Figure 1. Pedestrian and vehicular access is from Richmond Highway. Parcel 20, approximately 2.5 acres in size, fronts Richmond Highway, is zoned C-8 Highway Commercial District, and is partially developed with a welding operation. Parcels 19 and 18C, approximately 1.2 and 4.2 acres in size, respectively, are located north of Parcel 20. These parcels are zoned R-2 Residential District (two du/ac), and are vacant.

Pole Road Park is adjacent to the subject area to the north and west, and Dogue Creek runs along the shared eastern boundary of the park and the subject area. A townhouse community is adjacent to the northern edge of the Woodlawn CBC, near the eastern boundary of the subject area. A portion of the townhouse development's eastern edge is within the Dogue Creek RPA and EQC. This residential development was subject to an approved zoning application that predated the EQC Policy adopted by the Board in 1975.

The subject area abuts the Woodlawn CBC. The Woodlawn CBC was recently re-planned as part of an approximately two and a half year major corridor-wide planning effort known as Embark Richmond Highway that was adopted by the Board in March 2018. The new Comprehensive Plan envisions the creation of coordinated, transit-oriented places that highlight and strengthen the

historical and ecological attributes of the corridor; a new network of parks and open spaces; and pedestrian-scaled mixed-use development to form a series of vibrant, well-connected places that will contribute to the greater Richmond Highway community. As one of the six nodes in the Richmond Highway Corridor, the Woodlawn CBC is envisioned to evolve as a transit-oriented, mixed-use village and tourist hub served by a planned bus rapid transit (BRT) system. As described in the adopted Plan guidance, the Woodlawn CBC is planned for approximately 1,020 dwelling units, envisioned as townhomes and multifamily units, and 887,000 gross square feet of nonresidential uses, or roughly 2,614 jobs based on square feet per job conversion factors for different types of planned non-residential uses (office, retail, and hotel).

### **ADOPTED COMPREHENSIVE PLAN**

Parcels 19 and 20, the rectangular-shaped parcels, are within the Suburban Neighborhood Area adjacent to the Woodlawn CBC as shown in Figure 1, and are exempt from the 2016 Proffer Reform Bill. These parcels are planned for private open space, as they are almost entirely within the 100-year floodplain of Dogue Creek and designated as EQC and RPA, shown in Figure 2. Suburban Neighborhood Areas are part of the Richmond Highway Corridor and comprise the land located between the CBCs, which are planned as transit-oriented mixed-use nodes. Suburban Neighborhood Areas are recommended as primarily residential communities, smaller scale commercial businesses, or open spaces.

Parcel 18C, the northernmost triangular parcel, is within the MV8 Woodlawn Community Planning Sector as shown in Figure 1. The parcel is subject to the 2016 Proffer Reform Bill. Like Parcels 19 and 20, this parcel is also planned for private open space and designated as EQC and RPA, as it is almost entirely within the 100-year floodplain of Dogue Creek as shown in Figure 2.

### **PROPOSED PLAN AMENDMENT**

As stated previously, the Board authorized staff to consider residential use up to 8 du/ac for the subject area [Tax Map Parcels 109-2 ((1)) 18C, 19, and 20]. In addition to evaluating residential use for the subject area, the authorization requested that staff consider the ability to achieve full parcel consolidation and conform with Policy Plan guidance on EQCs, including the demonstration of any circumstances that merit disturbance to the EQC, and the provision of mitigation/compensation measures resulting in a net environmental benefit to the parcels and net benefits relating to most, if not all, the objectives of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed redevelopment to be consistent with the VDOT proposed widening of Richmond Highway.

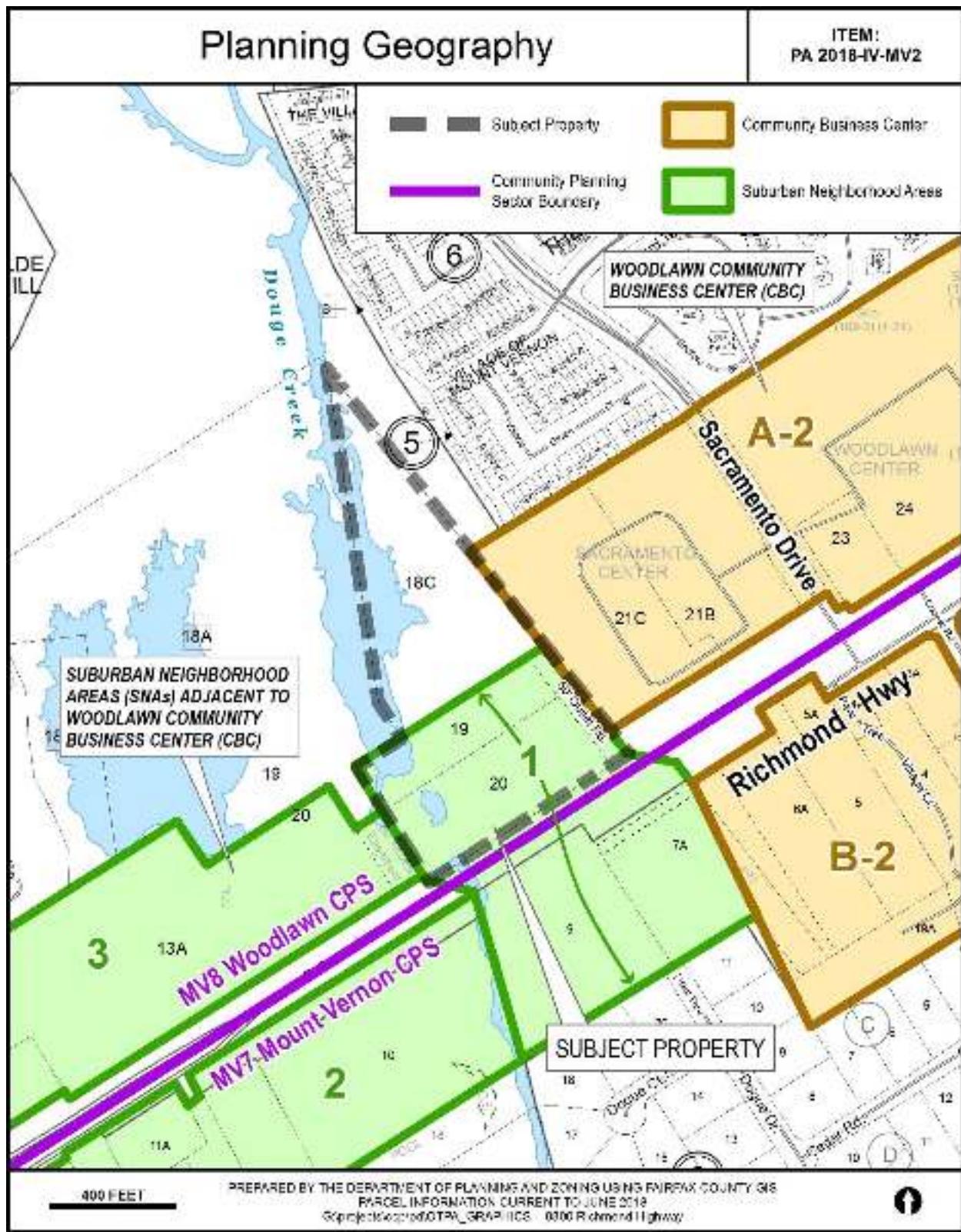
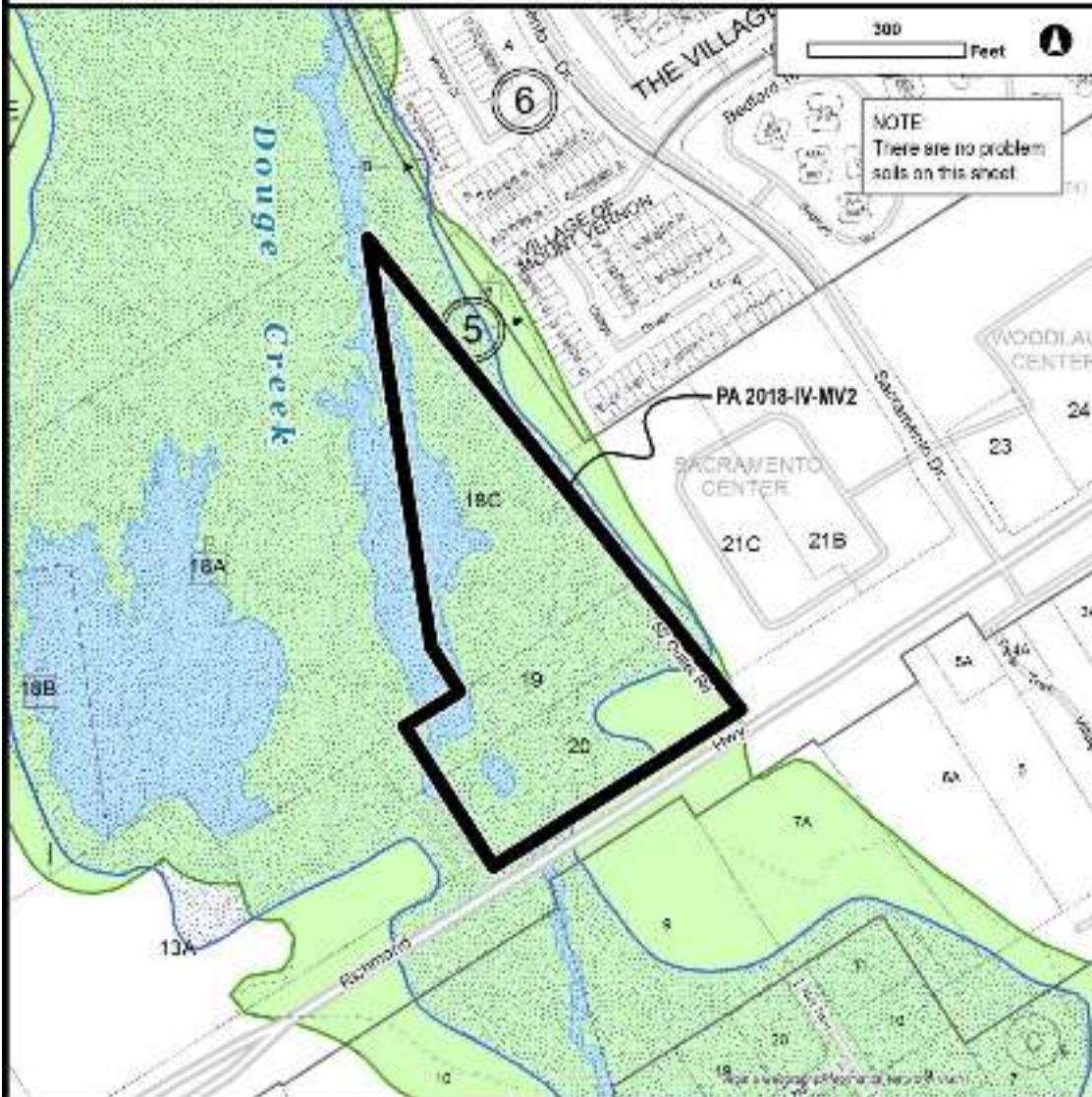


Figure 1 – Planning Geography

## 8800 Richmond Highway - Environmental Features ITEM: PA 2018-IV-MV2



### Environmental Features



FEMA 100-Year Flood Plain



Resource Protection Area (RPA)



### Problem Soils

The highly flood-prone soils include coastal clayey soils, including but not limited to high shrink-swell potential, low permeability, and asbestos. It should be noted that this layer describes the general location of the problematic soils. Therefore, some areas may not have problematic soils even though they fall within the bounds of the classification. A geotechnical investigation should be conducted prior to development to ensure proper mitigation.

Prepared by CPZ 2018

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Figure 2 – 100-Year Floodplain and Resource Protection Area (RPA)

Citations of Comprehensive Plan recommendations applicable to the proposed Plan amendment are included below.

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, page 1:

**“Environmental Protection** - The amount and distribution of population density and land uses in Fairfax County should be consistent with environmental constraints inherent in the need to preserve natural resources and to meet or exceed federal, state and local standards for water quality, ambient air quality and other environmental standards. Development in Fairfax County should be sensitive to the natural setting, in order to prevent degradation of the county’s natural environment.

**Open Space** - Fairfax County should support the conservation of appropriate land areas in a natural state to preserve, protect and enhance stream valleys, meadows, woodlands, wetlands, farmland, and plant and animal life. Small areas of open space should also be preserved in already congested and developed areas for passive neighborhood uses, visual relief, scenic value, and screening and buffering purposes.”

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, page 13:

**“Objective 7: Minimize the exposure of new development to the potential of flood impacts.**

Policy a: Prohibit new residential structures within flood impact hazard areas.”

Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Environment, Amended through 3-14-2017, pages 14 -17:

**“Objective 9: Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.**

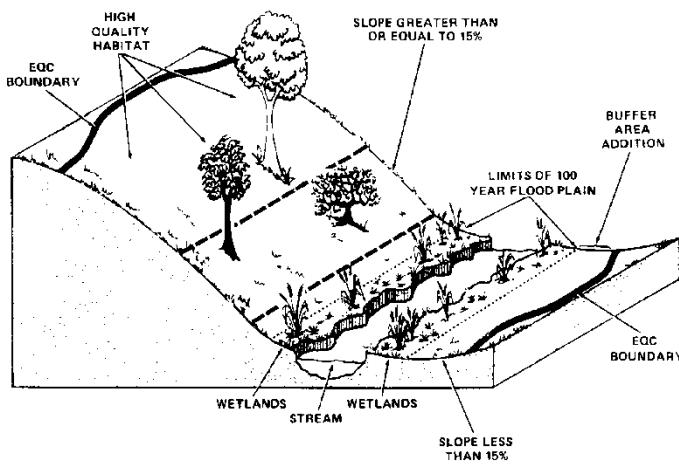
Policy a: Identify, protect and restore an Environmental Quality Corridor system (EQC)...

Lands may be included within the EQC system if they can achieve any of the following purposes:

- Habitat Quality: The land has a desirable or scarce habitat type, or one could be readily restored, or the land hosts a species of special interest. This may include: habitat for species that have been identified by state or federal agencies as being rare, threatened or endangered; rare vegetative communities; unfragmented vegetated areas that are large enough to support interior forest dwelling species; and aquatic and wetland breeding habitats (i.e., seeps, vernal pools) that are connected to and in close proximity to other EQC areas.

- Connectivity: This segment of open space could become a part of a corridor to facilitate the movement of wildlife and/or conserve biodiversity. This may include natural corridors that are wide enough to facilitate wildlife movement and/or the transfer of genetic material between core habitat areas.
- Hydrology/Stream Buffering/Stream Protection: The land provides, or could provide, protection to one or more streams through: the provision of shade; vegetative stabilization of stream banks; moderation of sheet flow stormwater runoff velocities and volumes; trapping of pollutants from stormwater runoff and/or flood waters; flood control through temporary storage of flood waters and dissipation of stream energy; separation of potential pollution sources from streams; accommodation of stream channel evolution/migration; and protection of steeply sloping areas near streams from denudation.
- Pollution Reduction Capabilities: Preservation of this land would result in significant pollutant reductions. Water pollution, for example, may be reduced through: trapping of nutrients, sediment and/or other pollutants from runoff from adjacent areas; trapping of nutrients, sediment and/or other pollutants from flood waters; protection of highly erodible soils and/or steeply sloping areas from denudation; and/or separation of potential pollution sources from streams.

The core of the EQC system will be the county's stream valleys. Additions to the stream valleys should be selected to augment the habitats and buffers provided by the stream valleys, and to add representative elements of the landscapes that are not represented within stream valleys. The stream valley component of the EQC system shall include the following elements:



A TYPICAL  
ENVIRONMENTAL QUALITY CORRIDOR

*Source: Fairfax County Office of Comprehensive Planning*

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Modifications to the boundaries so delineated may be appropriate if the area designated does not benefit any of the EQC purposes as described above. In addition, some disturbances that serve a public purpose such as unavoidable public infrastructure easements and rights of way may be appropriate. Disturbances for access roads should not be supported unless there are no viable alternatives to providing access to a buildable portion of a site or adjacent parcel. The above disturbances should be minimized and occur perpendicular to the corridor's alignment, if practical, and disturbed areas should be restored to the greatest extent possible

...

The following efforts within EQCs support the EQC policy and should be encouraged:

- Stream stabilization and restoration efforts where such efforts are needed to improve the ecological conditions of degraded streams. Natural channel design methods should be applied to the greatest extent possible and native species of vegetation should be used.
- Replanting efforts in EQCs that would restore or enhance the environmental values of areas that have been subject to clearing; native species of vegetation should be applied.
- Wetland and floodplain restoration efforts.
- Removal of non-native invasive species of vegetation from EQCs to the extent that such efforts would not be in conflict with county ordinances; such efforts should be pursued in a manner that is least disruptive to the EQCs.

Other disturbances to EQCs should only be considered in extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits relating to most, if not all, of the EQC purposes listed above that are applicable to the proposed disturbances.

Preservation should be achieved through dedication to the Fairfax County Park Authority, if such dedication is in the public interest. Otherwise, EQC land should remain in private ownership in separate undeveloped lots with appropriate commitments for preservation. The use of protective easements as a means of preservation should be considered.

..."

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Introduction, Guiding Planning Principles 6 and 7, Pages 8-9:

" 6.) Maintain the primarily residential nature of stable communities surrounding the CBCs by:

- a. Planning for primarily residential, institutional and open space uses in areas outside and between the CBCs.
- b. Providing a variety of residential housing types within the CBCs to preserve the stability of lower density neighborhoods.
- c. Supporting consolidation of land along Richmond Highway with parcels in the surrounding residential neighborhoods only when this type of consolidation is necessary to provide for site layouts that function in a well-designed, efficient manner to support reasonable and appropriate redevelopment along the corridor and protect unconsolidated parcels.

7.) Preserve, enhance, and restore the environment by:

- a. Minimizing the impact of development on the natural environment, including water quality and the ecological conditions of streams.
- b. Encouraging development approaches that serve to reduce impervious surfaces and achieve improved control over stormwater runoff ...
- c. Restoring streams and riparian areas where possible and practical.

..."

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Corridor-wide Guidelines, Environment, Page 17:

#### "Residential and Other Noise-Sensitive Uses"

Where residential or other noise sensitive uses are proposed near Richmond Highway, such proposals should only be considered with the provision of a noise study during the review of the development, commitments to noise mitigation measures, and, potentially, commitments to the provision of disclosure statements and a post-development noise study. The noise study during development review should clearly define the noise levels impacting the proposed uses as a measure of DNL dBA; should include noise contours and/or noise impacts at each façade of each affected building with current noise levels and projected noise levels based on a minimum 20-year traffic volume projection for the roadway and for bus rapid transit and/or Metrorail, as may be applicable; and,

should identify differing noise levels that may affect building facades at different elevations.

In areas where projected noise impacts at affected building facades will exceed DNL 75 dBA, design strategies should be pursued where feasible, consistent with other design goals, such that exposures of facades for noise-sensitive areas of residences will be minimized. Where such exposures cannot be avoided, and for dwelling units for which outdoor spaces including balconies are projected to be exposed to noise levels that exceed DNL 65 dBA, disclosure statements should be provided to potentially affected residents and users within the impacted uses or units. The disclosure statements should clearly identify the mitigated and unmitigated noise levels for interior space and the noise levels for any affected balconies, in addition to noise mitigation for interior space and outdoor recreational areas. When feasible, post-development noise studies should be conducted to support evaluations of the effectiveness of noise mitigation measures.”

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Suburban Neighborhood Areas, Suburban Neighborhood Areas introduction, page 165:

“...As redevelopment occurs in the Richmond Highway Corridor Area, projects should demonstrate compatible and effective transitions from the high intensity CBCs to the lower intensity SNAs; provide appropriately scaled and logical multimodal connections between the CBCs and SNAs; and ensure the character of new development and redevelopment in the SNAs is complementary to the adjacent CBCs and SNAs, where applicable. In addition to the recommendations above, the Guiding Planning Principles and Corridor-wide Guidelines should be consulted in the review of all development proposals in the SNAs. In some cases, site-specific recommendations may differ from and supersede these recommendations.”

Fairfax County Comprehensive Plan, 2017 Edition, Richmond Highway Corridor Area, Amended through 5-1-2018, Suburban Neighborhood Areas, Suburban Neighborhood Areas adjacent to Woodlawn CBC, Recommendation 1, page 181:

“1. Tax Map Parcels 109-2((2))7A and 9 and Tax Map Parcels 109-2((1)) 19 and 20 on both sides of Richmond Highway are predominantly floodplain and planned for open space.”

## RICHMOND HIGHWAY CORRIDOR IMPROVEMENTS PROJECT

The subject area is partially within the limits of the VDOT Richmond Highway Corridor Improvements Project as shown in Figure 3. The project will widen Richmond Highway from four to six lanes; add separate bicycle lanes and sidewalks on both sides of the roadway; and reserve a median to accommodate Fairfax County’s proposed BRT system. As part of the project, VDOT is recommending replacement of the existing bridge over Dogue Creek with a higher, multi-span bridge that would accommodate the widened roadway. The bridge is intended to convey the 100-year flood under it without overtopping the road. Existing culverts are proposed to be removed, allowing for the daylighting of Dogue Creek under the bridge. The bridge is just south of subject area.



Figure 3 – Proposed VDOT Richmond Highway Corridor Improvements

*NOTE: The Interactive Map was accessed on June 29, 2018. This image does not show all of the proposed improvements. For any future updates, consult [http://www.virginiadot.org/projects/northern\\_virginia/richmond\\_highway\\_interactive\\_map.asp](http://www.virginiadot.org/projects/northern_virginia/richmond_highway_interactive_map.asp)*

Staff has identified a number of items for further information gathering and analysis related to the bridge and existing circumstances of Dogue Creek, to determine how the bridge may be implemented and function as intended by VDOT. Specifically, additional analysis is needed regarding the alignment of Dogue Creek and related erosion concerns. Side-by-side images of the 1955 approved plat for the private recreation club and recent water features on or near the subject property are shown in Figure 4, and offer visualizations to aid in the following creek flow path, road and streambank erosion, and channel stabilization discussion.

Dogue Creek once flowed through a straight, north-south path as generally reflected in the approved plat on the left side of Figure 4. At a later time, an alternative channel was created to the west, which resulted in most of the flow of the creek being diverted to this newer channel. The north-south flow path at one time was impeded by a mechanism near the pond (the pond is shown on the right image) that prevented the north-south flow; more recently, the mechanism was breached and the flow path was restored. The western channel is circuitous and makes an abrupt 90 degree turn along the roadbed of Richmond Highway, which does not align with VDOT's culvert or the stream channel downstream of Richmond Highway. This western channel condition has resulted in the continual erosion of the streambank and roadbed along and in the vicinity of the subject property. Note the figures do not reflect the actual width of the roadway in relation to stream.

There has been a preliminary need identified to re-establish a straightened channel that conveys the flow into the culvert under Richmond Highway, and to stabilize the channel to effectively convey flows and allow for ecosystem functions. Even if the culvert is removed with the proposed bridge project, erosion of the streambank at the base of the bridge from the western channel would

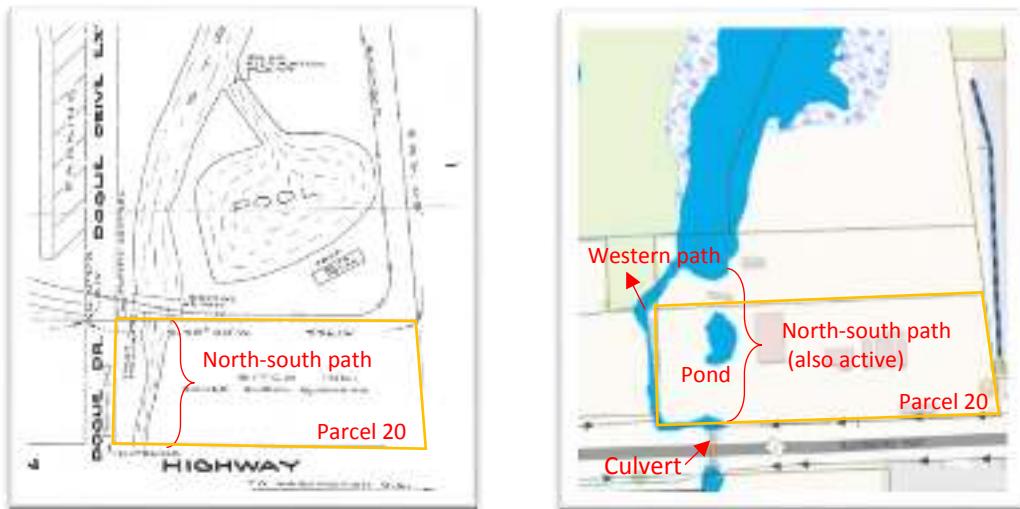


Figure 4 – Part of Approved Plat, 1955 (left) Dogue Creek and related features, researched 06/2018 (right)

continue to be problematic due to the 90 degree turn at Richmond Highway. Compounding concerns about erosion near and along Richmond Highway are concerns about additional erosion of the stream channel a short distance upstream, in an area that until recently had been ponded. Large volumes of sediment were deposited in the formerly ponded area. Any additional destabilization of this area could result in the movement of much of this sediment downstream, and stream channel erosion progressing upstream.

It is staff's view that more discussions with VDOT about the interface between Dogue Creek and the new bridge are needed to fully address the Board's request to determine whether redevelopment could be consistent with the VDOT Richmond Highway Corridor Improvements project. Improving the stability of the stream channel is also an important consideration to mitigate existing conditions and protect new infrastructure.

The estimated schedule for the VDOT Corridor Improvements Project includes a design public hearing in the fall of 2018 and design approval in the winter of 2018/19. A number of additional milestones are identified before construction begins in the Spring of 2023. For the most recent information, see the VDOT project website at [http://www.virginiadot.org/projects/northernvirginia/richmond\\_highway.asp](http://www.virginiadot.org/projects/northernvirginia/richmond_highway.asp).

## ANALYSIS

### ***Environment***

#### **Terms and Definitions**

As previously noted, the subject area is almost entirely within the 100-year floodplain of Dogue Creek as well as the associated EQC and RPA. The 100-year floodplain is the flat area adjacent to a main stream channel that has a one percent (1%) chance of being covered by a flood event in any

given year. The majority of the subject property is also a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area. Special Flood Hazard Areas are defined as high risk areas identified by FEMA Flood Insurance Program maps.<sup>1</sup> Floodplain management regulations must be enforced and mandatory purchase of flood insurance applies for Special Flood Hazard Areas.<sup>2</sup>

RPsAs are defined and delineated under the Chesapeake Bay Preservation Ordinance, which was adopted by the county per the requirements of Virginia's Chesapeake Bay Preservation Act; this Act is applicable to all "Tidewater" localities in Virginia. These are generally localities that have land east of I-95, but also cities and towns surrounded by such localities (e.g. Fairfax City and the towns of Vienna, Clifton and Herndon). RPsAs are corridors of environmentally sensitive land located alongside or near the shorelines of streams, rivers, and other waterways. Most types of new development are prohibited in RPsAs. Some disturbances such as infrastructure improvements may be permitted, but most types of land disturbance in RPsAs must be granted through an RPA exception. In Fairfax County, exceptions may be approved by the Board if the proposed disturbance is part of a zoning request. Redevelopment is permitted within RPsAs if there is no increase in the amount of impervious cover and there is no further encroachment within the RPA.

EQCs are environmentally-sensitive lands that are identified and recommended for protection and restoration through the EQC Policy in the Comprehensive Plan. Areas are recommended for inclusion within EQCs based on the criteria as provided in the policy, and the ability to achieve any of the stated purposes of EQCs including habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollutant reduction. The EQC policy also supports the restoration of degraded areas that would otherwise meet the EQC designation criteria. These networks of the county's natural landscapes can also provide passive recreation opportunities, an important function that protects and enriches the quality of life for residents of Fairfax County. There are no regulatory requirements for the protection of EQCs; however, the preservation of EQCs is long-standing Board-adopted policy typically achieved through the development review process, acquisition of parkland, and the donation of easements.

#### Comparison with EQC Policy

The Board specifically requested that staff evaluate the amendment within the context of the Policy Plan guidance addressing EQCs, which includes guidance for considering disturbances to EQCs. The policy recommends that, with some specific exceptions, disturbances to EQCs should only be considered in "*extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits related to most, if not all, of the EQC purposes that are applicable to the proposed disturbances.*" In staff's view, there is not the presence of such an "extraordinary circumstance" which warrants re-planning land that is floodplain, RPA, and EQC for residential use. Further, at the time of staff report publication, there was not sufficient evidence that most of the applicable purposes of the EQC (in this case, habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities) would receive a net benefit, or

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<sup>1</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

<sup>2</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

that mitigation/compensation measures demonstrating a clear and substantial net environmental benefit would be provided to offset a residential development at a density up to 8 du/ac.

#### *History of EQC Policy Including EQC Disturbance Considerations*

Given the proposed disturbance to the EQC, a summary of the history and purpose of the adopted EQC policy is provided in this section.

The guidance recommending the protection of EQCs was initially adopted in the 1975 Edition of the Comprehensive Plan and has been refined since that time. The guidance regarding proposed disturbances to EQCs was adopted by the Board in 2010 in response to questions raised in 2009 in conjunction with the approval of a zoning application for the Aerospace Corporation. The application identified the filling of two headwater stream valleys along with a comprehensive EQC restoration effort. At that time, Policy Plan guidance did not account for the consideration of such trade-offs. Therefore, after approving the application, the Board requested a thorough review of the EQC policy as it relates to proposals for disturbance to EQCs. The issue was referred by the Planning Commission to its Environment Committee.

In contemplating circumstances under which such EQC trade-offs should be considered, the Planning Commission's Environment Committee stressed that EQC disturbances should only be supported in extraordinary circumstances; i.e., the consideration of EQC disturbances and possible trade-offs should not be routinely or typically applied. The Planning Commission supported the Environment Committee's proposal to establish the "extraordinary circumstance" benchmark, and the Board adopted this guidance. The term "extraordinary circumstance" was not defined, recognizing the different circumstances could arise among applications, and this guidance would be considered on a case-by-case basis.

Since the 2010 adoption of the Policy Plan guidance addressing disturbances to EQCs, there have been two instances where such disturbances were approved when applying the guidance. In 2015, the Board of Supervisors and BZA approved zoning applications from Fairfax Water and Vulcan Quarry. The ability to reconfigure and convert a portion of the quarry was approved in order to support the long term water supply storage needs of Fairfax County and the region. The quarry would ultimately be able to store approximately 17 billion gallons of water upon completion of the quarry expansion around the year 2085. A small stream valley on the Vulcan Quarry property was proposed to be incorporated within the expanded quarry, and as part of the review of the zoning applications, significant analysis was conducted to understand the impacts of diverting the stream's flow and compensating for its loss. A development condition was included that resulted in Vulcan Quarry preparing and submitting an EQC compensation plan.

The other instance was a Proffered Condition Amendment for Circle Towers in 2011 that included a request for new vehicular access that would result in crossing the RPA and EQC at the western edge of the site. In this case, consideration of the EQC crossing was considered an extraordinary circumstance because of external limitations to proposed improvements for the two existing access points to Circle Towers. Additionally, the applicant had made extensive efforts to provide improved accessibility and circulation through other alternatives. In order to mitigate impacts for the proposed EQC crossing, the applicant both designed a wetland area and habitat to be restored in the existing EQC, and also designed the crossing in an environmentally sensitive manner as a

bridge spanning the EQC rather than a road built on a culvert or filled area. These efforts offset and mitigated the encroachment and impact of the EQC/RPA crossing, and were ultimately determined to provide a net environmental benefit. At the time of staff report publication, the applicant had not pursued redevelopment and the associated mitigations that were part of the approved Proffered Condition Amendment.

#### New Residential Lots and Other Development in Floodplains

As stated previously, the Board's authorization directs staff to consider the effect of development within the EQC, which is mostly coterminous with the 100-year floodplain and RPA. The Policy Plan recommends that new residential structures within flood impact hazard areas be prohibited. Staff is not aware of circumstances where new residential lots have been approved within 100-year floodplains, and the approval of this amendment could be regarded as an example for similar proposals elsewhere requesting new residential lots within floodplains. Further, unless there is a clear demonstration that the circumstances warranting consideration of this amendment are truly extraordinary and not something that could be routinely applied to degraded EQCs elsewhere in the county, the approval of this amendment could have the effect of generating increased development pressure for land use activities that propose disturbances to EQCs.

Another consideration is the potential for impacts to Fairfax County's rating in the FEMA National Flood Insurance Community Rating System. The Community Rating System is a voluntary program that encourages communities to enact floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) standards. Under the Community Rating System, communities may benefit from discounted flood insurance premium rates as a result of community activities that reduce flood losses, facilitate accurate insurance ratings, and promote awareness of flood insurance. Each year, Fairfax County submits an annual recertification. Adjustments could be made to the rating based on a community's mitigation and floodplain management activities.<sup>3</sup> Fairfax County has participated in the program since 1993, and is one of two jurisdictions in Virginia with a rating of Class 6, meaning that property owners can obtain flood insurance at a discount.<sup>4</sup> Comprehensive Plan guidance recommending new development in floodplains, that may be looked to as an example when considering future land disturbance in floodplains, may negatively impact to the county's rating.

#### Noise Considerations

The subject area will continue to be affected by high noise levels generated by traffic on Richmond Highway. VDOT's proposed replacement of the bridge over Dogue Creek with a higher structure may complicate the consideration of available noise mitigation strategies for residential development.

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<sup>3</sup> FEMA Community Rating System Fact Sheet, June 2017. Accessed June 7, 2018. <https://www.fema.gov/media-library-data/1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP CRS Fact Sheet 2017 508OK.pdf>

<sup>4</sup> National Flood Insurance Program, Fairfax County Public Works and Environmental Services. Accessed June 7, 2018. <https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>.

## ***Land Use***

### **Embark Plan Amendment and Revitalization Considerations**

The Embark Richmond Highway planning process resulted in the adoption of corridor-wide guidance that was the outcome of extensive community and stakeholder engagement and refinement based on collective input. One of the overarching principles of the Plan guidance is focusing revitalization and redevelopment in the corridor's nodes (the CBCs), an idea that is also conveyed in the Comprehensive Plan's Concept for Future Development. The corridor-wide guidelines for the Richmond Highway Corridor recommend preserving, enhancing, and restoring the environment by minimizing the impact of development on the natural environment including impacts to water quality and the ecological conditions of streams. The Suburban Neighborhood Areas were recommended to retain their adopted land uses and intensities. Parcel 18C falls outside of the Richmond Highway Corridor and was not included in the Embark planning study.

Specific to the Woodlawn area, the possibility of using the environmental features of Dogue Creek as an amenity for future development was recommended as early as the 1984 Edition of the Comprehensive Plan, which states that “the environmental characteristics of the area [the Dogue Creek EQC] should serve not only as a tool for shaping growth into nodes, but should provide an amenity to all future development in the corridor.” The Embark planning effort was able to, more broadly, bring this guidance to the forefront and recognize that highlighting environmental features could also support revitalization efforts through a new “ecological spine” environmental concept in certain CBCs. As redevelopment occurs, previously impacted streams and waterways are recommended to be improved by removing conveyance pipes and impervious surfaces, restoring environmental functions, and creating passive recreation uses that would not negatively impact the newly daylighted streams. The proposed Plan amendment is counter to the spirit of ecological spines as development that could occur under the proposed amendment would preclude the ability to restore environmental functions within the EQC areas that would be developed. The potential for future restoration of these areas would remain under the current recommendation for private open space. One purpose of the EQC system is to preserve its pollution reduction capabilities. Residential use could result in the introduction of a new level of activity that generates pollutants that would not likely be produced to the same degree through an open space use (e.g., runoff of fertilizers and pesticides used for lawn management).

The subject property was subject to extensive disturbance in the past. In 1955, an outdoor amusement center was approved by the Board of Zoning Appeals (BZA) for Parcel 20, and a private recreation club was approved several months later by the BZA for the remainder of the subject area and the adjoining property to the west. Light industrial uses and related businesses replaced the amusement center beginning in the 1960s and continued for approximately five decades, primarily on Parcels 19 and 20. The uses included vehicle repair; a storage yard for inoperable vehicles, trailers, tires, boats, and construction equipment; and landscaping services. A majority of the uses required the submission and approval of special exception applications, site plans, and/or permits which are not on record with the county. In 2015-2016, the Fairfax County Department of Code Compliance (DCC) conducted inspections that revealed ongoing violations of Zoning Ordinance provisions. The Notice of Violations issued in September 2016 was appealed by the property owner. On June 14, 2017, the BZA upheld the Zoning Administrator regarding the Notice of Violations. Subsequently, the violations were addressed by removing the structures and

the storage yard that were in violation of the Zoning Ordinance provisions. One permitted use, a welding operation, remains on a portion of Parcel 20.

Staff recognizes that the history of uses may generate interest in accommodating some redevelopment. Where appropriate, the county supports redevelopment of uses that could be viewed as inconsistent with revitalization goals. On this site, revitalization considerations are secondary to the many environmental concerns, including the inability to achieve adopted Plan policies for EQCs, EQC disturbances, and recently adopted Richmond Highway Corridor guidance, and the potential consequences of recommending residential use in a floodplain.

#### Parcel Consolidation

The subject property is comprised of an eight-acre consolidated area. One of the benefits of parcel consolidation is the ability to configure development in a manner that minimizes negative impacts, such as environmental disturbance.

#### *Transportation*

An evaluation of trip generation was conducted based on the rezoning applicant's proposal for 43 townhomes (5-6 du/ac) and the site design at the time of staff report publication. The Comprehensive Plan guidance for the Richmond Highway Corridor recommends multimodal connections between the CBCs and SNAs, where appropriate. A grid network to accommodate vehicles, pedestrians, and bicyclists is recommended in the Woodlawn CBC, adjacent to the subject area. The applicant's rezoning application proposes a new road through their site. If the Plan amendment is adopted and the subject area is developed, consideration should be given to configuring the new road in a manner that could connect with the other half of the roadway that would be provided when the Sacramento Center Shopping Center redevelops, provided that analysis is done that weighs the benefits and disadvantages of encroaching into the RPA between the Woodlawn CBC and the subject property with the transportation connectivity goals for the corridor.

An estimated 104 daily vehicular trips are generated by existing uses, and this would increase to 309 trips. This results in an increase of 205 daily trips when compared to the existing uses. A total of 26 morning peak hour trips and 72 afternoon peak hour trips are estimated under a townhouse scenario, this is 27 less vehicular trips during the morning peak hours and 7 less trips during the afternoon peak hours compared with the existing uses. There are currently no trips generated by the planned private open space use; therefore the net increase compared to the adopted Comprehensive Plan is 309 daily trips, 53 morning peak hour trips, and 72 afternoon peak hour trips. The increased number of vehicular trips is not anticipated to cause significant impacts to the transportation network provided that appropriate mitigation is addressed as part of the rezoning review process.

The Board authorization indicates the need for potential development to be consistent with the VDOT Richmond Highway Corridor Improvements Project. The transit, roadway, bicycle, and pedestrian improvements on Richmond Highway will require right-of-way from the subject area. The right-of-way needs, timing of any proposed land development activities, and relevant site design considerations should be coordinated with VDOT to avert potential conflicts with the corridor improvements project.

### **Public Schools**

The schools analysis evaluated the potential impact to the public schools serving the subject area under the maximum residential density under consideration (8 du/ac). Based on 64 single-family attached residential units, a total of 30 students are estimated using the most current countywide student yield ratio at the time of the analysis, as shown in Figure 5. The schools that serve the study area are Mount Vernon High School, Whitman Middle School, and Washington Mill Elementary School. Based on school capacity as of January 2018, Mount Vernon and Whitman schools are under capacity (at 84% and 79% of their capacity, respectively) and Washington Mill is over capacity (at 116% percent). The capacity and projected enrolled is based on the adopted Fiscal Year 2019-2023 Capital Improvements Program (CIP). The CIP identifies a number of potential solutions to alleviate current and projected school capacity deficits, including program changes, capacity enhancement through a modular or building addition, and boundary adjustment with schools having a capacity surplus. Any options chosen to address school capacity would be discussed through a public process with stakeholder and community engagement, in accordance with School Board Policies and Regulations.

School Level	Proposed Student Yield
High	9
Middle	4
Elementary	17

Figure 5: Student Yield by School Level

### **Parks & Recreation**

The parks analysis evaluated 64 single-family attached residential units to estimate the greatest potential impact to the parks serving the subject area under the maximum residential density under consideration (8 du/ac). The additional residents from this level of development would generate the need for an additional 0.92 acres of local park space and 2.39 acres of district/countywide park space, using the average household size of a single-family attached unit for the Mount Vernon Planning District (2.93 people/single-family attached unit). Residential projects are recommended to offset impacts to parkland and park facilities for which there are adopted service level standards through monetary or “in-kind” contributions to serve the corridor.

As mentioned previously, Dogue Creek runs along the shared eastern boundary of Pole Road Park and the subject area. If the amendment is approved and development occurs, any development should provide for the treatment of invasive species and use only native plants for landscaping, seed mixes, and erosion control. Due to the extent of the floodplain on the subject area and adjoining park, seeds could be more easily transported and spread to the adjoining parkland, therefore the use of native species and treatment of invasive species is of particular importance.

Due to the previous disturbance on Parcels 19 and 20, there is a low probability of significant cultural resources on this portion of the site and additional archaeological study is not warranted. Parcel 18C has less disturbance, therefore a Phase I archaeological survey, followed by Phase II archaeological testing and Phase III archaeological data recovery, as appropriate, should be considered.

### ***Heritage Resources***

The Comprehensive Plan guidance for the Richmond Highway Corridor notes the importance of considering a development's potential impacts to resources in two historic overlay districts (HOD) proximate to the corridor, Woodlawn and Huntley. A portion of the subject area is within the Woodlawn Historic Overlay District (HOD). Should the amendment be approved and development pursued, the design of the proposed development should be sensitive to the heritage resources within the Woodlawn HOD, including historic roadways. If potential impacts to the viewsheds from Huntley or Woodlawn are identified, mitigation should be pursued through modified building height, the use of non-reflective building materials, and/or other approaches.

### **CONCLUSION**

The proposed amendment generates considerable concerns when evaluated within the context of three main considerations expressed in the Board's authorization: residential use; Policy Plan guidance for EQCs and disturbances to EQCs; and consistency with VDOT's Richmond Highway project.

In terms of the appropriateness of residential use on the subject property, new residential development that significantly encroaches into a floodplain and EQC and would require filling in a floodplain is contrary to long-established county policy and newly adopted Plan recommendations for the Richmond Highway Corridor. There is also concern about the potential for precedent with countywide implications; unless there is a clear demonstration that the circumstances warranting consideration of this amendment are truly extraordinary and not something that could be routinely applied elsewhere in the county, the approval of this amendment could have the effect of generating increased development pressure for land use activities that propose disturbances to EQCs.

As for the EQC policy, all of the stated purposes of EQCs are applicable to this site (habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities). Under the recommendation for private open space, there is potential to restore those EQC functions. The current Plan reflects the inherent environmental value of the subject area (EQC, RPA, and floodplain). Staff recognizes that the history of uses and extent of previous disturbance may generate interest in accommodating some redevelopment. However, establishing new residential lots within the floodplain is not the appropriate course of action to achieve the desired outcome. A clear and net substantial environmental benefit and a net benefit to the applicable purposes of the EQC would not be gained from re-planning the subject property from open space to residential use at density up to 8 du/ac, and is also of concern.

Lastly, in terms of consistency with the Richmond Highway Corridor Improvements Project, Dogue Creek on and near the subject area has ongoing streambank erosion and channel stability issues. The potential for the release of accumulated sediment furthers concerns about the unstable stream condition. Additional discussions about these outstanding concerns and an identification of a preferred course of action are critical in order to assess whether redevelopment could be consistent with the bridge and related aspects of VDOT's efforts.

## **RECOMMENDATION**

It is staff's view that the amendment creates conflicts with established Comprehensive Plan policy and would create adverse precedent relating to new residential development within floodplains. Adequately addressing the concerns regarding the stability of the Dogue Creek channel, erosion, and VDOT's Richmond Highway project requires further coordination and discussion. Staff does not support this amendment.



**PROPOSED  
COMPREHENSIVE PLAN  
AMENDMENT ADDENDUM**

**ITEM:** PA 2018-IV-MV2  
Original Staff Report published July 5, 2018  
Date of Addendum: October 3, 2018

**GENERAL LOCATION:** North of Richmond Highway, west of Sacramento Center, east of Pole Road Park

**SUPERVISOR DISTRICT:** Mount Vernon

**PLANNING AREA:** Area IV

**PLANNING DISTRICT:**

Mount Vernon Planning District

**SUB-DISTRICT DESIGNATION:**

Richmond Highway Corridor Area,  
MV8 Woodlawn Community Planning Sector

**PARCEL LOCATION:** 109-2 ((1)) 18C, 19, and 20

For additional information about this amendment call (703) 324-1380.

**PLANNING COMMISSION:**

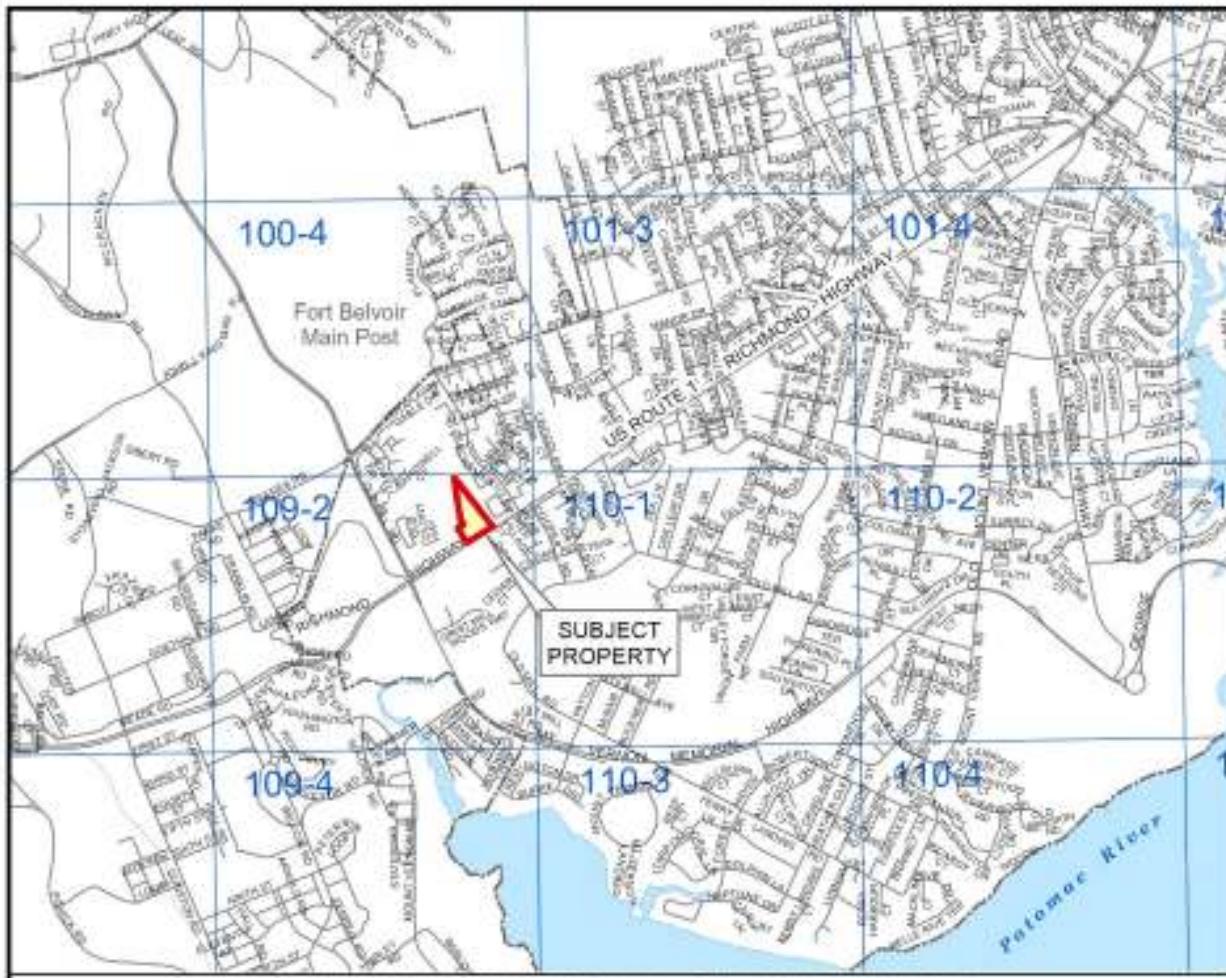
Public meeting held Thursday,  
July 19, 2018 @ 7:30 PM

Public hearing scheduled for Wednesday,  
October 24, 2018 @ 7:30 PM

**BOARD OF SUPERVISORS PUBLIC HEARING:**  
Tuesday, November 20, 2018 @ 4:30 PM

**PLANNING STAFF DOES NOT RECOMMEND  
THIS ITEM FOR PLAN AMENDMENT**

Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.



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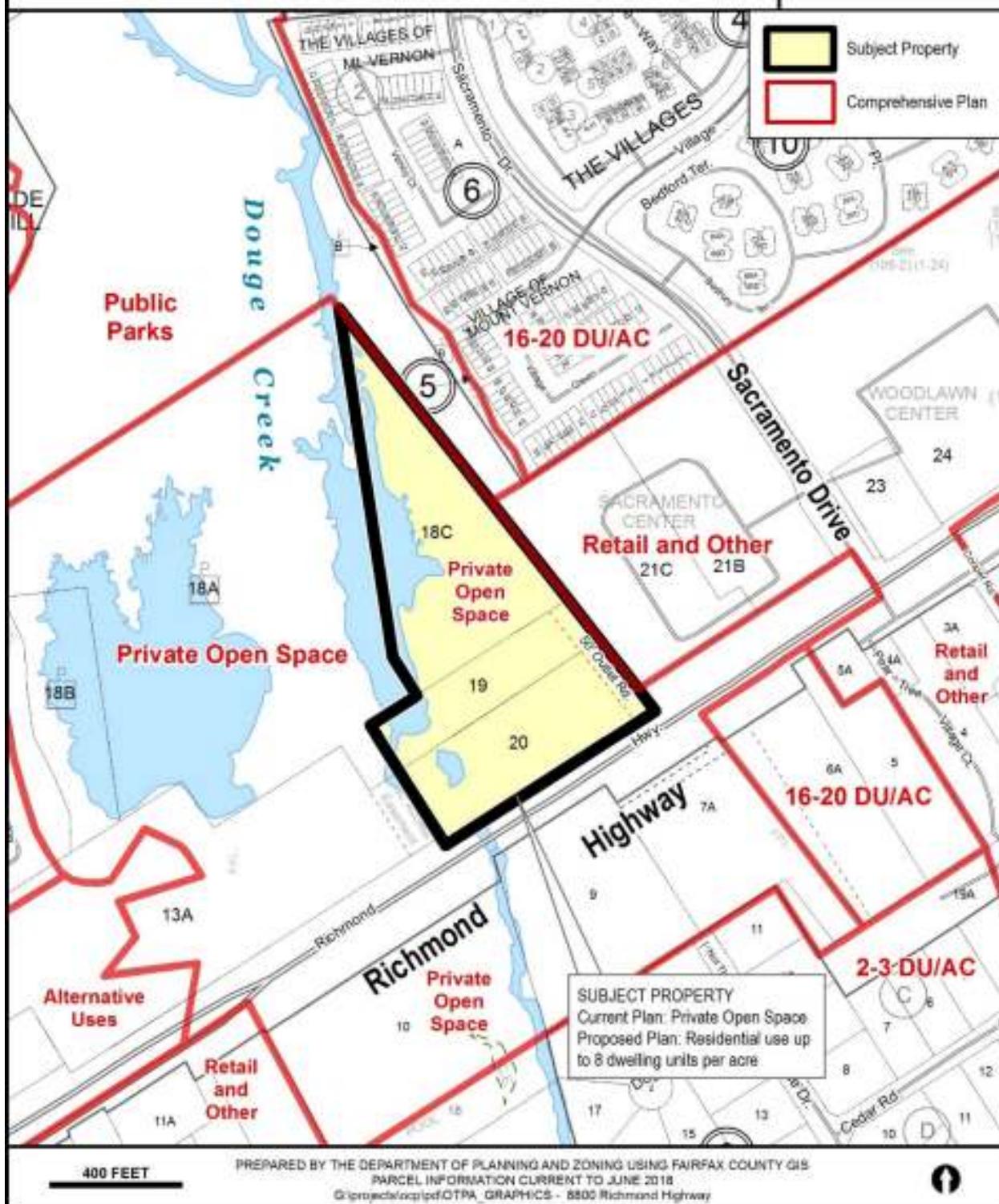
PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS  
8800 Richmond Highway



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**CURRENT PLAN AND PROPOSED CHANGE**  
PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR  
SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

ITEM:  
**PA 2018-IV-MV2**



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**PLAN AMENDMENT 2018-IV-MV2**  
**STAFF REPORT ADDENDUM**  
**Published October 3, 2018**

The staff report addendum addresses issues and requests raised at the July 19, 2018 Planning Commission meeting for proposed Comprehensive Plan amendment 2018-IV-MV2 (8800 Richmond Highway), as well as additional requests and considerations raised subsequent to the meeting. The staff report published on July 5, 2018 can be found at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy). The Plan amendment is concurrently under review with Rezoning and Final Development Plan application RZ/FDP 2016-MV-018 and Special Exception application SE 2016-MV-016. Consult [ldsnet.fairfaxcounty.gov/ldsnet/CurrentInProcessBOS.aspx](http://ldsnet.fairfaxcounty.gov/ldsnet/CurrentInProcessBOS.aspx) for information on these applications.

## **BACKGROUND**

### *Plan Amendment Authorization*

On March 6, 2018, the Board of Supervisors (Board) authorized consideration of a Plan amendment for an approximately eight-acre area located at 8800 Richmond Highway, as shown on the maps on the previous pages. The Board requested that staff evaluate residential use at a density up to 8 du/ac for the subject property, which is planned for private open space. In addition to evaluating residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform with Policy Plan guidance for Environmental Quality Corridors (EQCs), including the demonstration of any circumstances that merit disturbance the EQC, and that EQC disturbance is mitigated/compensated by measures that result in a net environmental benefit to the parcels and net benefits related to most, if not all, of the purposes of the EQC policy that are applicable to the proposed disturbances. The authorization also identified a need for proposed development to be consistent with the Virginia Department of Transportation (VDOT) Richmond Highway Corridor Improvements Project.

### *Public Hearings*

A Planning Commission meeting was held on July 19, 2018. A public hearing before the Planning Commission has been scheduled for October 24, 2018 at 7:30 p.m. as explained in the memo included as Attachment A on page 9. The testimony from the July 19 meeting has been transcribed and can be found on the Plan amendment webpage at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy) and the Planning Commission calendar at [www.fairfaxcounty.gov/planningcommission/sites/planningcommission/files/assets/calendar/2017/october2017.pdf](http://www.fairfaxcounty.gov/planningcommission/sites/planningcommission/files/assets/calendar/2017/october2017.pdf). Any speakers who wish to have their July testimony considered by the Planning Commission should email [Plancom@fairfaxcounty.gov](mailto:Plancom@fairfaxcounty.gov) or call the Planning Commission office at 703-324-2865 and identify the portion of the transcript to be submitted in lieu of or to supplement testimony at the October 24 public hearing. The Board of Supervisors public hearing is scheduled for Tuesday, November 20, 2018 at 4:30 p.m. Note this time is an update to the information included in the memo shown as Attachment A.

*Staff Recommendation*

Staff recommends retaining the adopted Comprehensive Plan recommendation for private open space. Staff's analysis can be found in the staff report published July 5, 2018 at [www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy](http://www.fairfaxcounty.gov/planning-zoning/plan-amendments/8800-richmond-hwy).

**DISCUSSION**

A number of considerations specific to the development proposal for RZ/FDP 2016-MV0-018 and SE 2016-MV-016 were mentioned at the Planning Commission's July 19 meeting. While these matters are typically the focus of the staff report and public hearing for the rezoning and special exception applications, because extensive discussion ensued and interest in these applications was expressed by the Planning Commission and the public in July and following the meeting, this section of the addendum provides updated information and additional considerations related to the concurrent applications that may be pertinent to the evaluation of the proposed Plan amendment.

*Updates*

Topic 1: Impacts to Dogue Creek - whether the proposed development would have any negative effect on Dogue Creek

In staff's view, issues regarding potential adverse impacts to Dogue Creek have not been definitively resolved. While information has been provided by the applicant identifying a reduction in phosphorus runoff as a result of the development proposal, there is a need to consider more broadly the potential impacts to Dogue Creek and water quality that could result from the proposed development, particularly in relation to the potential for erosion and sedimentation. Staff and representatives of the applicant have engaged in numerous conversations about these concerns, and further discussion is anticipated as the review of the rezoning application continues. An assessment of potential impacts or benefits to Dogue Creek and its RPA and EQC should include an analysis of the environmental corridor more holistically beyond phosphorus runoff. This type of analysis is needed to assess conformance with the Board's EQC policy and other environmental goals and objectives.

Topic 2: Dogue Creek Floodplain Revision – information about the applicant's floodplain study

The purpose and intent of the Floodplain Ordinance is "to protect against loss of life, health, or property from flood or other dangers." As such, the applicant is required to conduct a floodplain study to demonstrate the proposed development would not raise flood elevations. In light of the magnitude of the pending floodplain revision that is explained in the following paragraphs, the development plan under the proposed Plan amendment density of 8 du/ac may be determined to be contrary to the purpose and intent of the Floodplain Ordinance. Modeling a 100-year recurrence interval flood is a statistical approach to risk reduction, and the inherent inaccuracies of estimating flood flows further underscores the importance of land preservation and safe development practices near sources of flooding.

Since the staff report publication and Planning Commission meeting in July, staff identified that the existing FEMA floodplain report used in previous floodplain studies underestimated flood

flows as 4,250 cubic feet per second (cfs) where 8,377 cfs more accurately represents the discharge.

The applicant's materials to date have included floodplain information based on the effective FEMA hydraulic analysis report for Dogue Creek. The Fairfax County Department of Land Development Services (LDS) approved the applicant's most recent floodplain study, #5271-FPV-002-A-1, based on the flow data in the effective FEMA report. The applicant's study showed the proposed development would not raise flood elevations by placing the proposed fill. Since that time, VDOT shared hydrologic analysis with the County showing that flood flows are underestimated in the effective FEMA floodplain report. The County concurs with the hydrologic assessment performed by VDOT and notified the applicant on September 7, 2018 that a new floodplain study is required to reflect the significantly higher and more accurate flow rates. Floodplain elevations at the site are anticipated to be 1.0 to 2.5 feet higher than in the effective FEMA floodplain study, and the applicant's most recent floodplain study, and will be confirmed in subsequent submissions of the floodplain study.

Topic 3: Environmental Improvement - whether the proposed development improves the environmental condition of the property compared to its current condition

Several factors are critical in the evaluation of potential environmental benefits and/or improvements. These include: the extent of the proposed EQC restoration; the extent of the natural buffer that will be restored/protected between the proposed development and the stream and its associated wetlands; proposed changes to drainage conditions on the subject area (including measures that will be taken by the applicant to resolve erosion and sedimentation concerns related to the drainage issues as described in the staff report); tree planting and preservation; landscaping; and invasive plant management. At the time of staff report addendum publication, the above mentioned factors are actively being discussed between staff and the applicant, and staff cannot conclude that the proposed rezoning application would result in an overall environmental improvement. These issues necessitate continued discussion during the review of the rezoning application if a Plan amendment is adopted.

Topic 4: Stream buffer – whether there is a standard for a minimum buffer distance

Virginia's Chesapeake Bay Preservation Area Designation and Management Regulations, which establish the required parameters of the county's Chesapeake Bay Preservation Ordinance, require that a "vegetated buffer not less than 100-feet wide be located adjacent to and landward of all tidal shores, tidal wetlands, certain associated non-tidal wetlands, and along both sides of all water bodies with perennial flow".<sup>1</sup> The Regulations also state, "to minimize the adverse effects of human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100-foot wide buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff shall be retained if present

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<sup>1</sup> Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance. "Riparian Buffers Modification & Mitigation Guidance Manual." September 2003, reprinted 2006. *Virginia Department of Environmental Quality*. [www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf), page 1. Accessed September 2018.

and established where it does not exist.”<sup>2</sup> Fairfax County has added to this state minimum-required buffer area all “major floodplain” areas, which are 100-year floodplains of streams/watercourses with drainage areas of 360 acres or more.

The following diagram illustrates many of the benefits provided by riparian forest buffers and depicts the ranges in minimum buffer widths that are recommended to achieve these benefits. The range and extent of benefits grow with increasing buffer widths. Relatively narrow buffer areas provide limited benefits.

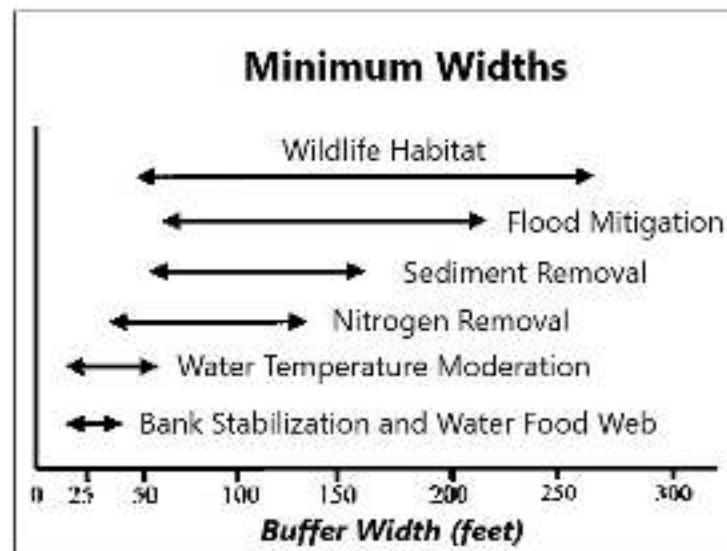


Figure 6-3. Range of minimum widths for meeting specific buffer objectives.

Source: United States Department of Agriculture. “Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers.” May 1997, revised June 1998.

*Chesapeake Bay Program.* [www.chesapeakebay.net/content/publications/cbp\\_13019.pdf](http://www.chesapeakebay.net/content/publications/cbp_13019.pdf), Section IV, page 6-8, Figure 6-3.

#### *Response to Cited Rezoning Application RZ/FDP 1998-LE-055*

At the Planning Commission meeting on July 19, 2018, RZ/FDP 1998-LE-055 (Hybla Valley Property LLC) was referenced by a representative of the rezoning applicant (Mark Viani) as an example of a development plan that included new residential lots in a floodplain. The purpose of the following discussion is to provide additional information regarding staff’s evaluation and the approved development plan that was not available at the July 19 meeting.

Attachment B, pages 10-11, shows the approved development plan with the 100-year floodplain delineation highlighted in yellow. Two lots are identified as being partially within the 100-year floodplain; the lots are designated “Lot A” and “Lot B” for the purposes of explanation in this staff report addendum.

<sup>2</sup> Virginia Department of Conservation and Recreation, Chesapeake Bay Local Assistance. “Riparian Buffers Modification & Mitigation Guidance Manual.” September 2003, reprinted 2006. *Virginia Department of Environmental Quality.* [www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf](http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/RiparianBufferManual.pdf), page 101. Accessed September 2018.

For “Lot A”, the 2<sup>nd</sup> Addendum to the Environmental Assessment dated August 30, 2000 includes the following on page 2: “in light of the location of this area near the proposed culvert crossing (and the disturbance that will be needed for this crossing), the disturbance that has already occurred in this area, and the broad expanse of the floodplain in this area, this Branch [Environment and Development Review, Planning Division] does not object to these minor encroachments.”

For “Lot B”, page 2 of the same report states, “with the exception of [Lot A], the development plan should be revised such that all private lot areas will be located outside of the 100-year floodplain areas and that no clearing and grading for residential development will occur within such areas. Prior to DPWES approval of the floodplain study, the applicant dealt with this concern by including with the draft proffers a commitment that ‘all private lots shall be located outside the limits of the final boundaries of the flood plain areas as approved by DPWES.’ ” As shown on the development plan, “Lot B” was left vacant. Ultimately, this lot was not established through the subdivision process.

During a conversation with staff subsequent to the July 19 meeting, Mr. Viani highlighted a statement from the August 30, 2000 memorandum expressing the Environment and Development Review Branch’s opposition to “the expansion of the geographic extent of the 100-year floodplain such that private lot areas would be located within the floodplain (either existing or post-development) or such that clearing or grading will be needed in the floodplain . . .”. Mr. Viani raised the concern that the statement suggested staff’s opposition to modifying the floodplain delineation based on an updated floodplain study. While staff does not recall the specific context behind this statement, it is likely this concern addressed the effect that the proposed development would have on the floodplain boundaries and the need to ensure any changes in these boundaries would not result in private lots in floodplains, rather than a dismissal of updated floodplain information. Regardless of the context, the statement did not support the inclusion of private lot areas within the floodplain, with the noted exception of “Lot A”. It is staff’s view that the corners of residential lots encroaching into the floodplain is not analogous to the floodplain impact that would be anticipated through development of residential use up to 8 du/ac that is being evaluated.

#### *Countywide Resource Protection Area (RPA) and Floodplain Data*

Staff received a request from a Planning Commissioner regarding countywide and magisterial district floodplain, EQC, and RPA acreage data, as well as related information regarding private or public ownership, location within or outside of revitalization districts, and impervious cover. Data about EQC acreage is not readily available, however floodplain and RPA data is provided in this section. Tables A through D contain countywide floodplain and RPA acreage information. Tables E and F contain data about impervious acreage. Table G includes data by Supervisor district. The information is aggregated from parcel data and excludes rights-of-way.

Approximately 40,780 acres, or 15.7 percent of the county, is located within RPA *and/or* floodplain. Approximately 20,220 acres, or 7.7 percent of the county, is located in both RPA *and* floodplain. Sully District contains the most acreage in both RPA *and* floodplain, followed by Mount Vernon and Springfield Districts. Together, these three districts contain over 57 percent of the land in the county that is both in RPA *and* floodplain. Of the countywide acreage that is in

RPA *and* floodplain, 530 acres are categorized as impervious. Mount Vernon District contains 285 acres, or over 70 percent of privately owned impervious acreage within RPA *and* floodplain.

Table A: Countywide area within floodplain

Countywide area within floodplain	21,364	acres
<b>Ownership</b>		
Publicly Owned	11,843	acres
Private/Other	9,521	acres
<b>Revitalization District</b>		
In	38	acres
Out	21,326	acres

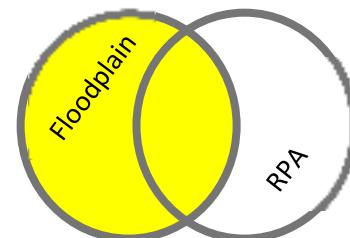
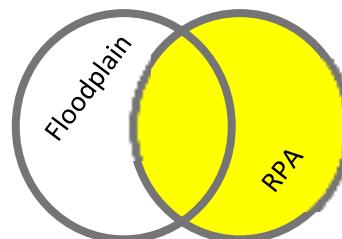
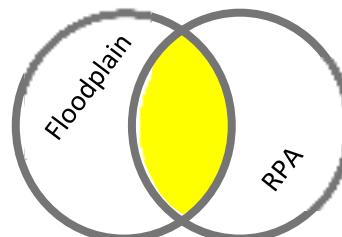


Table B: Countywide area within RPA

Countywide area within RPA	39,738	acres
<b>Ownership</b>		
Publicly Owned	19,640	acres
Private/Other	20,098	acres
<b>Revitalization District</b>		
In	73	acres
Out	39,665	acres

Table C: Countywide area within both floodplain *and* RPA

Countywide area within both floodplain <i>and</i> RPA	20,218	acres
<b>Ownership</b>		
Publicly Owned	11,563	acres
Private/Other	8,655	acres
<b>Revitalization District</b>		
In	34	acres
Out	20,184	acres

Table D: Countywide area within floodplain *and/or* RPA

Countywide area within floodplain <i>and/or</i> RPA	40,783	acres
<b>Ownership</b>		
Publicly Owned	19,851	acres
Private/Other	20,932	acres
<b>Revitalization District</b>		
In	80	acres
Out	40,703	acres

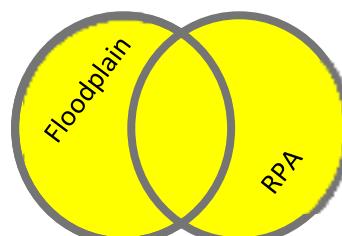


Table E: Countywide **impervious area** within both floodplain *and* RPA

Countywide impervious area within both floodplain <i>and</i> RPA	530	acres
<b>Ownership</b>		
Publicly Owned	127	acres
Private/Other	403	acres
<b>Revitalization District</b>		
In	12	acres
Out	518	acres

Table F: Countywide **impervious area** within floodplain *and/or* RPA

Countywide impervious area within floodplain <i>and/or</i> RPA	2,058	acres
<b>Ownership</b>		
Publicly Owned	202	acres
Private/Other	1,856	acres
<b>Revitalization District</b>		
In	36	acres
Out	2,022	acres

Table G: Data by Supervisor District

Supervisor District	Area within floodplain and/or RPA (acres)	Area within both floodplain and RPA (acres)	Privately owned impervious area within floodplain and/or RPA (acres)	Privately owned impervious area within both floodplain and RPA (acres)
Braddock	2,770	1,466	124	5
Dranesville	6,106	2,802	155	18
Hunter Mill	3,299	1,733	175	13
Lee	2,523	770	150	9
Mason	1,652	732	162	34
Mount Vernon	8,443	3,910	623	285
Providence	1,835	1,056	193	15
Springfield	8,411	3,517	183	14
Sully	5,744	4,231	91	10
<i>Total</i>	<i>40,783</i>	<i>20,218</i>	<i>1,856</i>	<i>403</i>

*Draft Comprehensive Plan Text*

The Planning Commission requested that staff provide a response to draft text provided by Mr. Viani at the July 19 Planning Commission meeting or alternative draft Plan text. Attachment C, pages 12-13, is staff's alternative draft Plan text. Attachment D, pages 14-15, is Planning Commissioner Clarke's alternative draft Plan text. Attachment E, pages 16-17, is Commissioner Clarke's draft modified by staff's suggested draft. In light of the environmental characteristics of the subject property, some of which have significance beyond property lines (i.e. Dogue Creek), staff's version includes conditions that with appropriate implementation would mitigate many of the environmental concerns associated with a recommendation for residential use up to 8 du/ac. While staff is not recommending changes to the adopted Comprehensive Plan guidance for the subject area, draft Plan text is offered for the Planning Commission's consideration if an amendment to the Comprehensive Plan is supported.

Attachment A: Memo dated August 30, 2018



County of Fairfax, Virginia

**MEMORANDUM**

DATE: August 30, 2018

**TO:** Supervisor Dan Storch  
Planning Commissioner Walter Clarke

**FROM:** Fred Seiden, Director of ~~DPZ~~  
Department of Planning and Zoning (DPZ)

**SUBJECT:** New Planning Commission Public Hearing for Comprehensive Plan  
Amendment 2018-IV-MV2 (8800 Richmond Highway)

On March 6, 2018, the Board of Supervisors authorized consideration of a proposed Comprehensive Plan amendment for an approximately eight-acre area located at 8800 Richmond Highway, comprised of Tax Map Parcels 109-2 ((1)) 18C, 19, and 20. The Board of Supervisors requested that staff evaluate residential use at a density up to 8 dwelling units per acre (du/acre) for the subject area, which is currently planned for private open space. In addition to residential use, the authorization requested that staff consider full parcel consolidation and the ability for development to conform to Policy Plan guidance on BQC's. The authorization also identified a need for proposed redevelopment to be consistent with the VDOT widening of Richmond Highway.

On July 19, 2018, the Planning Commission held a public hearing for PA 2018-IV-MV2 and recommended deferring the decision to September 13, 2018. Because the staff recommendation is to retain the adopted Plan for private open space, proposed revisions to the Plan guidance were not included in the staff report or available for public review ahead of the hearing. The Virginia Code requires, however, that a Plan amendment ad identify a place in the locality where copies of the proposed amendment are available for examination. Given the absence of any such amendment text before the hearing, the most prudent course of action is to advertise a new Planning Commission public hearing and have draft Plan text available.

Therefore, a new Planning Commission public hearing date has been scheduled for October 24, 2018 at 7:30 pm and the Board of Supervisors public hearing is now scheduled to November 26, 2018 at 4:00 pm. We will make every effort to avoid delays to the consideration of the associated rezoning application as a result of having to hold this new public hearing.

We regret the inconvenience this will cause to the Planning Commission, Board of Supervisors and the many community members who are interested in this proposed Comprehensive Plan amendment.

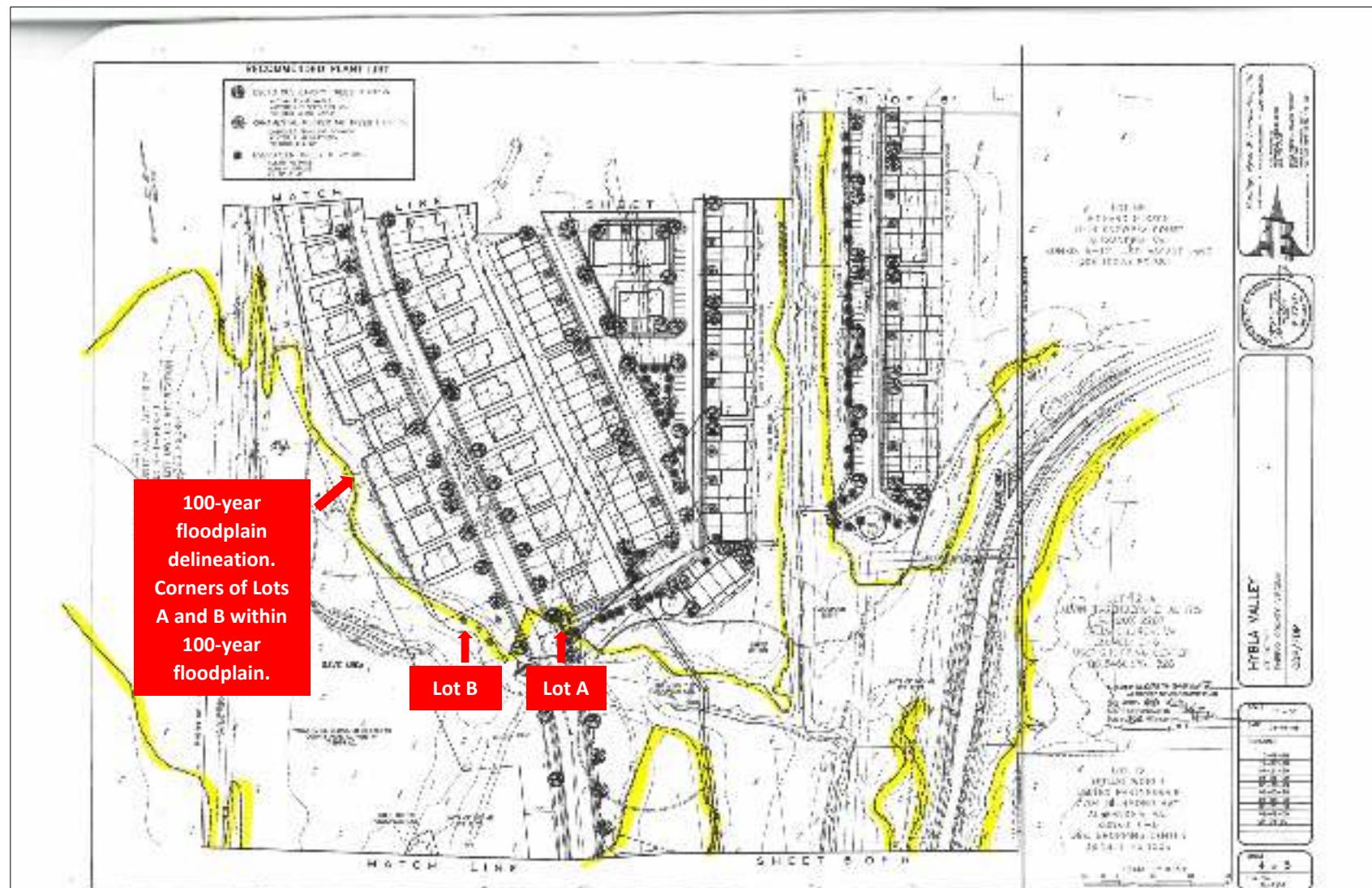
Please contact me at 703-324-1262 with questions or to discuss further.

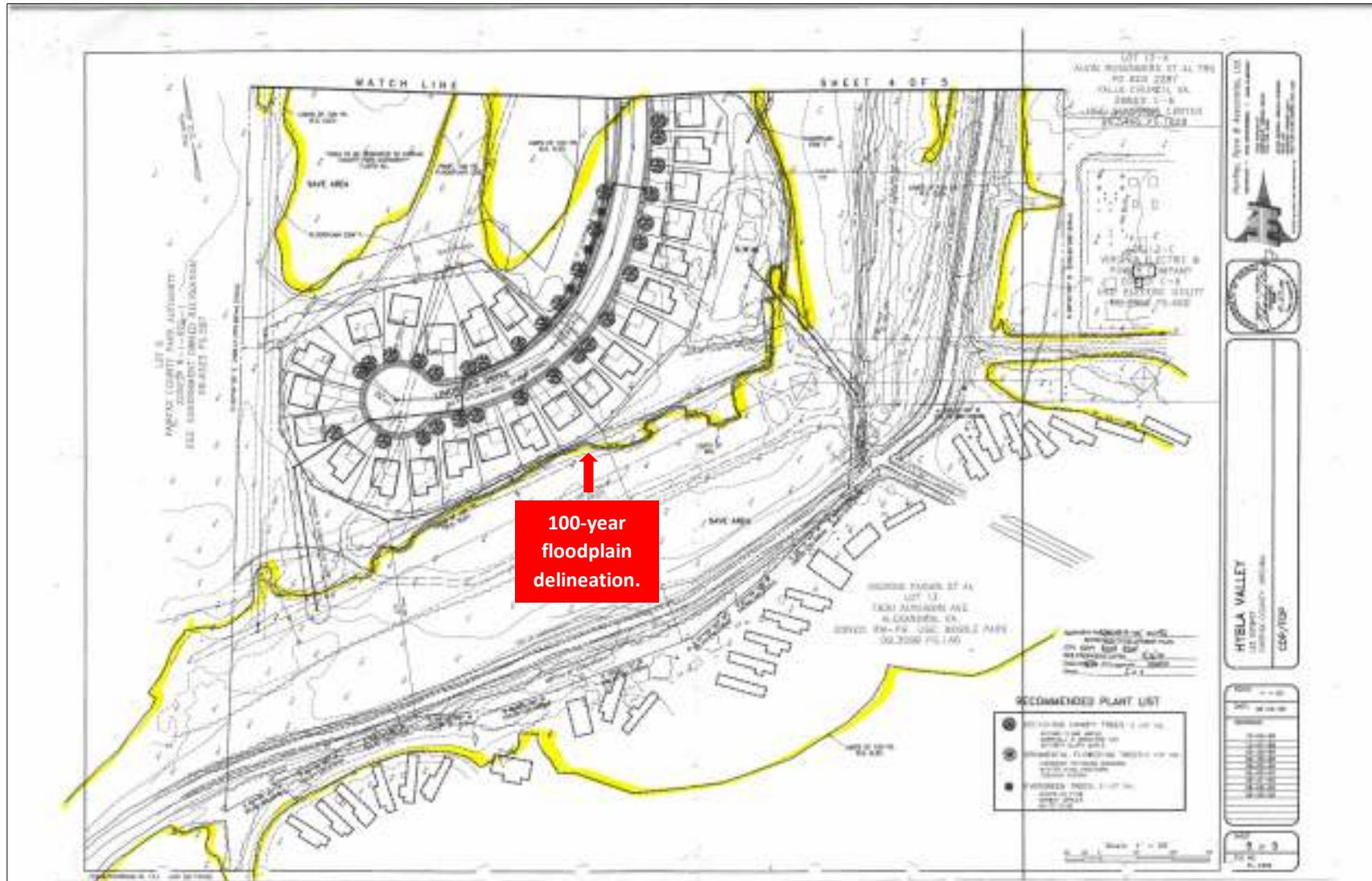
Excellence • Innovation • Stewardship  
Integrity • Teamwork • Public Service

Department of Planning and Zoning  
Planning Division  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035-5507  
Phone: 703-324-1380  
Fax: 703-653-9447  
[www.fairfaxcounty.gov/planning-zoning](http://www.fairfaxcounty.gov/planning-zoning)



Attachment B: Sections of approved development plan for RZ/FDP 1998-LE-055





Attachment C: Staff draft Plan text

Text proposed to be deleted is shown with ~~strikethrough~~. Text proposed to be added is shown as underlined.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

“1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, ~~and 20,~~ and 18C on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on a limited portion of Tax Map Parcels 109-2 ((1)) 19, 20, and 18C at a density up to 5-8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Development should provide a street network that is coordinated and/or aligned with the planned grid in the Woodlawn CBC. Density may be limited by the need to achieve the conditions for this option. Since the majority of the area is in the floodplain of Dogue Creek, measures should be taken to minimize and mitigate the environmental impact and ensure development is protected from potential flood-related impacts. Under the residential option, the following conditions should be met:

- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Restore a minimum 100-foot vegetated buffer landward from the banks of Dogue Creek and other perennial channels and the maximum extent of connected and contiguous wetlands;
- Reduce encroachment into the RPA and EQC compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities;
- Coordinate with state, federal and local government agencies to ensure development is in harmony with and will not impede improvements to Richmond Highway;
- Ensure the Dogue Creek stream alignment and erosion concerns near the roadbed of Richmond Highway are addressed consistent with the Virginia Department of Transportation’s planned improvements and replacement of the bridge over Dogue Creek;
- Identify a stream channel alignment for the restoration of Dogue Creek agreeable to Fairfax County, the State of Virginia and the United States Army Corps of Engineers. Reserve the land needed to achieve the alignment and allow Fairfax County and/or other entities to implement the channel realignment and related restoration efforts if these actions are not completed as part of the residential development;
- Consider restoring the channel of Dogue Creek using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage.

In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC;

- Ensure that environmental restoration efforts pursued in conjunction with development will be effective and viable over the long term. This could include the establishment of criteria to measure restoration efforts, monitoring of the success of restoration efforts over time (with triggers for corrective action) and consideration of measures that can support appropriate management of restored areas in perpetuity.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018:

Figure 1, page 2; Figure 2, page 5; Figure 4, page 26; Figure 56, page 146; Figure 64, page 160; Figure 72, page 180:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Land Use Plan Map, amended through July 31, 2018 to include Plan Amendment Number 2017-15:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area Plans and Policy Plan:

Revise figures and text references as needed to reflect the expanded boundary area.

Attachment D: Planning Commissioner Clarke draft Plan text

Text proposed to be deleted is shown with ~~strikethrough~~. Text proposed to be added is shown as underlined.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

“1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, ~~and 20, and 18C~~ on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on Tax Map Parcels 109-2((1)) 19, 20, and 18C at a density up to 8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Due to the fact that much of the site has historically been used for light industrial uses and that a portion of Dogue Creek and its associated floodplain are located on the site, measures should be taken to mitigate environmental impacts and ensure development is protected from potential flood-related impacts. Environmental restoration efforts in conjunction with development should be effective and viable over time. Under the residential option, the following should be considered:

- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Create a vegetated buffer along Dogue Creek to generally meet the intent of the Chesapeake Bay Preservation Act;
- Reduce the extent of impervious surfaces in the RPA compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities commensurate with existing conditions and the scope of the proposed residential development;
- Ensure development is in harmony with planned improvements to Richmond Highway; and
- Consider restoring a portion of the original channel of Dogue Creek located on the subject property using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage. In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC;

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018:

Figure 1, page 2; Figure 2, page 5; Figure 4, page 26; Figure 56, page 146; Figure 64, page 160; Figure 72, page 180:

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**MODIFY:** Fairfax County Comprehensive Land Use Plan Map, amended through July 31, 2018 to include Plan Amendment Number 2017-15:

Expand the boundary area of Recommendation #1 within the Suburban Neighborhood Area adjacent to Woodlawn CBC to include Parcel 109-2 ((1)) 18C to reflect the proposed consolidated area.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area Plans and Policy Plan:

Revise figures and text references as needed to reflect the expanded boundary area.

Attachment E: Commissioner Clarke's draft modified by staff's draft using ~~strike through~~ and underline. Proposed figure and map modifications are the same and therefore not repeated below.

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area IV, Richmond Highway Corridor Area amended through 5-1-2018, Suburban Neighborhood Areas, Page 181:

"1. Tax Map Parcels 109-2 ((2)) 7A and 9 and Tax Map Parcels 109-2 ((1)) 19, 20, and 18C on both sides of Richmond Highway are predominantly floodplain and planned for open space.

As an option, residential development on a limited portion of Tax Map Parcels 109-2((1)) 19, 20, and 18C at a density up to 5- 8 du/ac may be considered with full parcel consolidation and high-quality architecture, site, and landscape design. Development should provide a street network that is coordinated and/or aligned with the planned grid in the Woodlawn CBC. Density may be limited by the need to achieve the conditions for this option. Since a majority of the area is in the floodplain of Dogue Creek, Due to the fact that much of the site has historically been used for light industrial uses and that a portion of Dogue Creek and its associated floodplain are located on the site, measures should be taken to minimize and mitigate the environmental impacts and ensure development is protected from potential flood-related impacts. Environmental restoration efforts in conjunction with development should be effective and viable over time. Under the residential option, the following conditions should be considered be met:

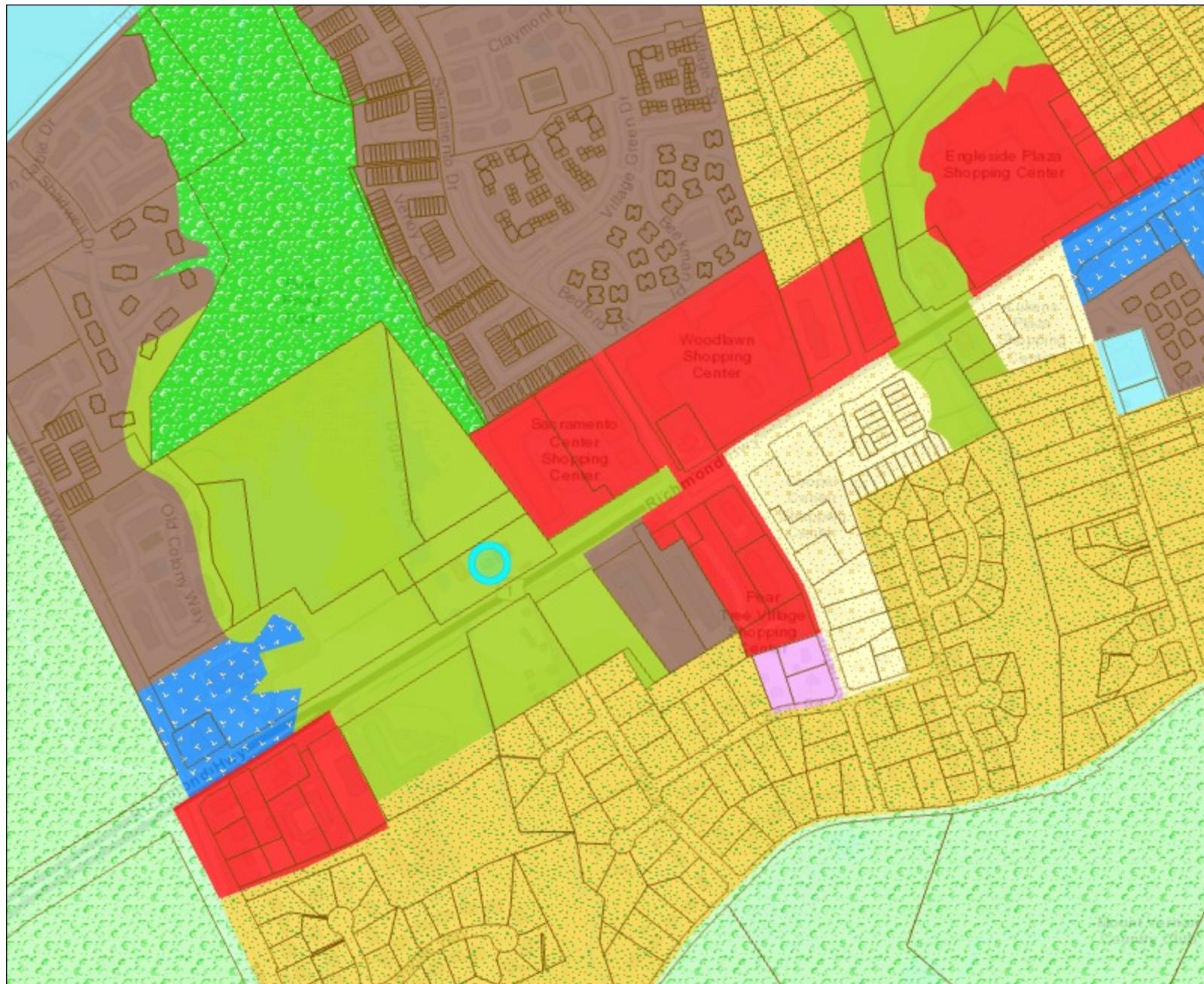
- Coordinate with the Fairfax County Park Authority to determine whether a portion of the consolidated area is suitable to be dedicated to the Park Authority;
- Restore a minimum 100-foot Create a vegetated buffer landward from the banks of along Dogue Creek and other perennial channels and the maximum extent of connected and contiguous wetlands to generally meet the intent of the Chesapeake Bay Preservation Act;
- Reduce encroachment into the RPA and EQC the extent of impervious surfaces in the RPA compared to existing conditions;
- Provide mitigation/compensation to ensure a substantial net environmental benefit to the EQC as measured by habitat quality, connectivity, hydrology/stream buffering/stream protection, and pollution reduction capabilities ~~commensurate with existing conditions and the scope of the proposed residential development;~~
- Coordinate with state, federal and local government agencies to Ensure development is in harmony with and will not impede planned improvements to Richmond Highway;
- Ensure the Dogue Creek stream alignment and erosion concerns near the roadbed of Richmond Highway are addressed consistent with the Virginia Department of Transportation's planned improvements and replacement of the bridge over Dogue Creek;
- Identify a stream channel alignment for the restoration of Dogue Creek agreeable to Fairfax County, the State of Virginia and the United States Army Corps of Engineers. Reserve the land needed to achieve the alignment and allow Fairfax

County and/or other entities to implement the channel realignment and related restoration efforts if these actions are not completed as part of the residential development;

- Consider restoring a portion of the original the channel of Dogue Creek located on the subject property using natural channel design methods or other appropriate methods to adequately and non-erosively convey storm flows, improve water quality and in-stream habitat, and provide fish passage. In light of erosion and sedimentation concerns, such effort may be necessary to ensure a net environmental benefit to the EQC; and
- Ensure that environmental restoration efforts pursued in conjunction with development will be effective and viable over the long term. This could include the establishment of criteria to measure restoration efforts, monitoring of the success of restoration efforts over time (with triggers for corrective action) and consideration of measures that can support appropriate management of restored areas in perpetuity.



# 8800 Richmond Highway Planned Land Use



0

1,505

3,009 Feet

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.



## Legend

Parcels	
Comprehensive Plan Base	
Fairfax Center Area	
.1-.2 DU/AC	
.2-.5 DU/AC	
.5-.1 DU/AC	
1-.2 DU/AC	
2-.3 DU/AC	
3-.4 DU/AC	
4-.5 DU/AC	
5-.8 DU/AC	
8-.12 DU/AC	
12-.16 DU/AC	
16-.20 DU/AC	
20+ DU/AC	
RPC	
Office	
Retail and Other	
Industrial	
Public Parks	
Private Recreation	
Private Open Space	
Public Facilities	
Mixed Uses	

## Notes:

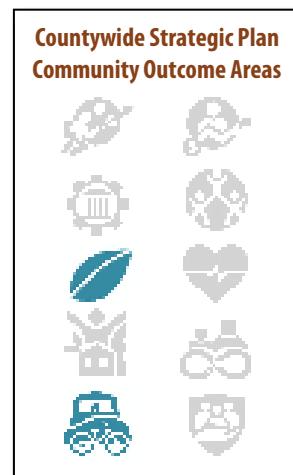
Map produced: 10/25/2023

## Mission

To develop and maintain a comprehensive watershed and infrastructure management program to protect property, health, and safety; to enhance the quality of life; and to preserve and improve the environment for the benefit of the public. To plan, design, construct, operate, inspect, and maintain stormwater infrastructure; perform environmental assessments through coordinated stormwater and maintenance programs in compliance with all government regulations utilizing innovative techniques, customer feedback and program review; and to be responsive and sensitive to the needs of the residents, customers, and public partners.

## Connection to the Countywide Strategic Plan

The Fairfax County Board of Supervisors adopted the first-ever Countywide Strategic Plan on October 5, 2021. The Countywide Strategic Plan serves as a road map to help guide future work, focusing on the 10 Community Outcome Areas that represent the issues of greatest importance to the community. In February of 2023, the first Annual Report on the work of the strategic plan was released to the public. The report contains point-in-time progress highlights for each of the proposed plan strategies, plus a sample data dashboard and data story that is being replicated across all of the outcome areas, and a number of additional initiatives to embed the elements of the plan within department-level work. The report also includes a Year Two Implementation Model, which focuses on identifying the specific strategies that will move forward to implementation under the guidance of the Board of Supervisors. For more information on the Countywide Strategic Plan, please visit [www.fairfaxcounty.gov/strategicplan](http://www.fairfaxcounty.gov/strategicplan). Fund 40100, Stormwater Services, primarily supports the following Community Outcome Areas:



Community Outcome Area	Vision Statement
Environment and Energy	<i>All people live in a healthy sustainable environment.</i>
Mobility and Transportation	<i>All residents, businesses, visitors and goods can move efficiently, affordably and safely throughout the county and beyond via our well-designed and maintained network of roads, sidewalks, trails and transit options.</i>

## Focus

Stormwater Services are essential to protect public safety, preserve property values, and support environmental mandates such as those aimed at protecting the Chesapeake Bay and the water quality of local jurisdictional waterways. Projects in this fund include repairs to stormwater infrastructure; measures to improve water quality such as stream stabilization, rehabilitation, safety upgrades of state regulated dams, repair and rehabilitation of underground pipe systems and surface channels, flood mitigation, site retrofits and best management practices (BMP); and other stormwater improvements.

## Fund 40100: Stormwater Services

The Board of Supervisors approved a special service district to support the Stormwater Management Program and provide a dedicated funding source for both operating and capital project requirements by levying a service rate per \$100 of assessed real estate value, as authorized by [Code of Virginia Ann. Sections 15.2-2400](#). Since this fund was established, staff has made significant progress in the implementation of watershed master plans, public outreach efforts, stormwater monitoring activities, water quality and flood mitigation project implementation, and operational maintenance programs related to existing storm drainage infrastructure including stormwater conveyance and regulatory requirements.

Staff continues to assess the appropriate service rate required to fully support the stormwater program in the future and address the growth in inventory and other community needs. Some of the additional community needs under evaluation include debt service to support the dredging of Lake Accotink, the anticipation of additional flood mitigation requirements, and strengthening the role and financial support for the implementation of stormwater requirements associated with Fairfax County Public Schools sites under renovation. This enhanced program may require incremental changes to the rate over time and may result in a higher rate to fully support the program. Staff continues to evaluate these requirements, as well as the staffing to support them, and analyze the impact of increased real estate values on revenue projections.

One of the recent initiatives being funded by the Stormwater Services Fund is the new Stormwater/Wastewater facility which will consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions. Stormwater operations are currently conducted from various locations throughout the County, and a new colocation of Stormwater and Wastewater staff will provide efficiencies and sharing of resources.

While staff continues to further evaluate the impact of recent initiatives and the long-term requirements for the Stormwater Program, the FY 2024 rate will remain the same as the [FY 2023 Adopted Budget Plan](#) level of \$0.0325 per \$100 of assessed value. However, based on capital project costs and projected revenues, it is anticipated that in the next several years, incremental rate increases will be required based on continued growth of stormwater facilities and infrastructure that must be inspected and maintained by the County, the implementation of flood mitigation projects, and additional requirements in the forthcoming Municipal Separate Storm Sewer System (MS4) Permit. On an annual basis, staff will continue to evaluate the program, analyze future requirements, and develop Stormwater operational and capital resource needs.

The FY 2024 levy of \$0.0325 will generate \$100,802,650, supporting \$29,460,043 for staff and operational costs; \$69,942,607 for capital project implementation including, infrastructure reinvestment, regulatory requirements, dam safety, emergency and flood response and contributory funding requirements; and \$1,400,000 transferred to the General Fund to partially offset central support services such as Human Resources, Purchasing, Budget and other administrative services supported by the General Fund, which benefit this fund.

### Stormwater Services Operational Support

Stormwater Services operational support includes funding for staff salaries, Fringe Benefits, and Operating Expenses for all stormwater operations. In addition, Fund 40100 includes positions related to transportation operations maintenance provided by the Maintenance and Stormwater Management Division. All funding for the transportation related salary expenses and equipment previously supported by Agency 87, Unclassified Administrative Expenses - Public Works Programs, are supported by capital projects in Fund 30010, General Construction and Contributions, as they do not qualify for expenses related to the stormwater service district. Funding for these programs

## Fund 40100: Stormwater Services

within Fund 30010, General Construction and Contributions, provides more transparency and the carryforward of balances at year-end.

Fund 40100 also supports the Urban Forestry Management Division (UFMD). The UFMD was established to mitigate tree loss and maximize tree planting during land development, enforce tree conservation requirements and monitor and suppress populations of Gypsy Moth, Emerald Ash Borer, and other forest pests. The UFMD also implements programs needed to sustain the rich level of environmental, ecological, and socio-economic benefits provided by the County's tree canopy. The UFMD is aligned with the mission of Stormwater Services as it strives to "improve water quality and stormwater management through tree conservation." Tree canopy and forest soils function to mitigate significant levels of water pollution and stormwater runoff. Thirteen merit positions and two temporary positions were transferred from the UFMD in Fund 40100, Stormwater Services, to Fund 40200, Land Development Services, in FY 2023 to better align resources and achieve efficiencies.

### FY 2024 Stormwater Capital Project Support

#### *Conveyance System Inspections, Development and Rehabilitation*

The County owns and operates approximately 1,614 miles of underground stormwater pipes and improved channels, with an estimated replacement value of over one billion dollars. County staff continues to perform internal inspections of all the stormwater pipes. The initial results show that approximately 5 percent of the pipes exhibit conditions of failure, and an additional 5 percent require



maintenance or repair. MS4 Permit regulations require inspection and maintenance of these 1,614 miles of existing conveyance systems, 68,000 stormwater structures, and a portion of the immediate downstream channel at the 7,000 regulated pipe outlets. Acceptable industry standards indicate that one dollar reinvested in infrastructure saves seven dollars over the asset's life and 70 dollars if asset failure occurs. The goal of this program is to inspect pipes on a 20-year cycle and rehabilitate pipes and improve outfall channels before total failure occurs. Total funding in the amount of \$10.0 million is included for Conveyance System Inspections, Development and Rehabilitation in FY 2024, including \$3.0 million for inspections and development and \$7.0 million for rehabilitation and outfall restoration.

#### *Dam Safety and Facility Rehabilitation*

There are approximately 8,200 stormwater management facilities in service that range in size from small rain gardens to large state-regulated flood control dams. The County is responsible for inspecting approximately 5,800 privately-owned facilities and maintaining over 2,400 County-owned facilities. This inventory increases annually and is projected to continually increase as new development and redevelopment occurs in the County. This initiative also includes the removal of sediment that occurs in both wet and dry stormwater management facilities to ensure that adequate capacity is maintained to treat the stormwater. The program results in approximately 50 projects annually that require design and construction management activities as well as contract

## Fund 40100: Stormwater Services

management and maintenance responsibilities. This program maintains the structures and dams that control and treat the water flowing through County-maintained facilities. This program improves dam safety by supporting annual inspections of 20 state-regulated dams and the Huntington Levee and by developing Emergency Action Plans required by the state. The Emergency Action Plans are



updated annually. In addition, these plans include annual emergency drills and exercises, and flood monitoring for each dam. Total funding in the amount of \$17.0 million is included in FY 2024, including \$6.0 million for maintenance and \$11.0 million for rehabilitation.

### *Stormwater/Wastewater Facility*

This project will provide funding for a Stormwater/Wastewater Facility which will consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions. Currently, Stormwater operations are conducted from various locations throughout the County, with the majority of staff located at the West Drive facility. Facilities for field maintenance operations and for field/offices-based staff are inadequate and outdated for the increased scope of the stormwater program, and inadequate to accommodate future operations. This project is currently in construction and is scheduled to be completed in late 2025. The facility is financed by EDA bonds with the Stormwater Services Fund and Wastewater Fund supporting the debt service. Funding in the amount of \$4.2 million is included in FY 2024 to support the debt service for the Stormwater/Wastewater Facility.

### *Emergency and Flood Response Projects*

This program supports flood control projects for unanticipated flooding events that impact storm systems and structural flooding. The program provides annual funding for scoping, design, and construction activities related to flood mitigation projects. Funding in the amount of \$7.0 million is included for the Emergency and Flood Response Projects in FY 2024.

### *Enterprise Asset Management-Work Order System*

This project will provide funding for the transition from an Enterprise Asset Management (EAM) system to a more functional Asset Management Program (AMP). This funding will support the acquisition of software, servers, and consultant services to migrate asset management and related work order management into the new system. The current system tracks assets, inspections, daily work management, and associated contractor costs. Features of the replacement system include geographic information system (GIS) integration and field mobility. The Department of Public Works and Environmental Services (DPWES) Information Technology staff have collaborated with the Stormwater Management and the Wastewater Management staff to promote interagency capabilities, optimize performance, and improve system lifecycle management for the new system. This new system will meet future expectations for both divisions and optimize service delivery for DPWES. Funding in the amount of \$0.64 million is included in Capital Projects and an amount of \$0.66 million is included in Operating Expenses for this project in FY 2024.

## Fund 40100: Stormwater Services

### *Stormwater-Related Contributory Program*

Contributory funds are provided to the Northern Virginia Soil and Water Conservation District (NVSWCD) and the Occoquan Watershed Monitoring Program (OWMP). The NVSWCD is an independent subdivision of the Commonwealth of Virginia that provides leadership in the conservation and protection of Fairfax County's soil and water resources. It is governed by a five-member Board of Directors - three members are elected every four years by the voters of Fairfax County and two members are appointed by the Virginia Soil and Water Conservation Board. Accordingly, the work of NVSWCD supports many of the environmental goals established by the Board of Supervisors. The goal of the NVSWCD is to continue to improve the quality of the environment and general welfare of the citizens of Fairfax County by providing them with a means of dealing with soil, water conservation, and related natural resource problems. It provides County agencies with comprehensive environmental evaluations for proposed land use changes with particular attention to the properties of soils, erosion potential, drainage, and the impact on the surrounding environment. NVSWCD has consistently been able to create partnerships and leverage state, federal and private resources to benefit natural resources protection in Fairfax County. FY 2024 funding of \$0.6 million is included in Fund 40100 for the County contribution to the NVSWCD.

The OWMP and the Occoquan Watershed Monitoring Laboratory (OWML) were established to ensure that water quality is monitored and protected in the Occoquan Watershed. Given the many diverse uses of the land and water resources in the Occoquan Watershed (agriculture, urban residential development, commercial and industrial activity, water supply, and wastewater disposal), the OWMP plays a critical role as the unbiased interpreter of basin water quality information. FY 2024 funding of \$0.2 million is included in Fund 40100 for the County contribution to the OWMP.

Contributory funding also supports additional projects selected through the successful NVSWCD-administered Conservation Assistance Program (CAP) and Virginia Conservation Assistance Program (VCAP) as approved by the Board of Supervisors on September 4, 2021. CAP and VCAP provide cost share and technical assistance for the voluntary installation of environmental best management practices (BMP). The programs align with the County's watershed management plans that suggest establishing a cost share program with property owners on BMP projects located on private land. The BMPs installed under CAP and VCAP help address private drainage and erosion issues, improve water quality, and support long-term stewardship of the County watersheds by building awareness of the importance of watershed protection. FY 2024 funding of \$0.25 million is included in Fund 40100 for the first year of this contribution to NVSWCD.

### *Stormwater Allocation to Towns*

On April 18, 2012, the State Legislature passed SB 227, which entitles the Towns of Herndon and Vienna to all revenues collected within their boundaries by Fairfax County's stormwater service district. An agreement was developed whereby the Towns remain part of the County's service district and the County returns 25 percent of the revenue collected from properties within each town. This allows for the Towns to provide services independently, such as maintenance and operation of stormwater pipes, manholes, and catch basins. The remaining 75 percent remains with the County and the County takes on the responsibility for the Towns' Chesapeake Bay Total Maximum Daily Load (TMDL) requirements as well as other TMDL and MS4 requirements. This provides for an approach that is based on watersheds rather than on jurisdictional lines. Funding in the amount of \$1.25 million is included for the Stormwater Allocations to Towns project in FY 2024.

### *Regulatory Program*

The County is required by federal law to operate under the conditions of a state-issued MS4 Permit. Stormwater staff annually evaluates funding required to meet the increasing federal and state

regulatory requirements pertaining to the MS4 Permit, and state and federal mandates associated with controlling water pollution delivered to local streams and the Chesapeake Bay. The MS4 Permit allows the County to discharge stormwater from its stormwater systems into state and federal waters. There are approximately 15,000 stormwater outfalls in the County and 7,000 are regulated outfalls covered by the permit. The most recent permit was issued to the County in April 2015 and expired in April 2020. The County is operating under an Administrative Continuance until a new permit is issued. The permit requires the County to document the stormwater management facility inventory, enhance public outreach and education efforts, increase water quality monitoring efforts, and provide stormwater management and stormwater control training to all appropriate County employees. The permit requires the County to implement sufficient stormwater projects that will reduce the nutrients and sediment to comply with the Chesapeake Bay and local stream TMDL requirements. Funding in the amount of \$4.0 million is included for the Stormwater Regulatory Program in FY 2024.

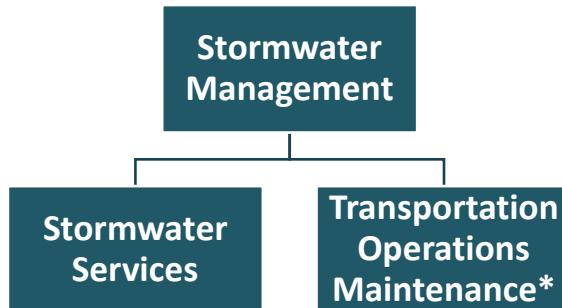
### *Stream and Water Quality Improvements*

This program funds water quality improvement projects necessary to mitigate the impacts to local streams and the Chesapeake Bay resulting from urban stormwater runoff. This includes water quality projects such as construction and retrofit of stormwater management ponds, implementation of green stormwater infrastructure facilities, stream restoration, and water quality projects identified in the



completed Countywide Watershed Management Plans. These projects will aid in the reduction of pollutants and improve water quality in County streams that are considered to be in fair to very poor condition and likely do not meet Federal Clean Water Act water quality standards. In addition, TMDL requirements for local streams and the Chesapeake Bay are the regulatory drivers by which pollutants entering impaired water bodies must be reduced. The Chesapeake Bay TMDL was established by the EPA and requires that MS4 communities, as well as other dischargers, implement measures to significantly reduce the nitrogen, phosphorous, and sediment loads in waters that drain to the Chesapeake Bay by 2025. MS4 Permit holders must achieve 35 percent of the required reductions within the current five-year permit cycle and 60 percent of the required reductions in the next five-year permit cycle. In addition, compliance with the Chesapeake Bay TMDL requires that the County undertake construction of new stormwater facilities and retrofit existing facilities and properties. The EPA continually updates the Chesapeake Bay compliance targets and credits. It is anticipated that the changes to the assigned targets as well as how projects are credited will likely impact future compliance requirements. In addition to being required to meet the Chesapeake Bay TMDL targets, the current MS4 Permit requires the County to develop and implement action plans to address local impairments. Most of the 1,900 watershed management plan projects contribute toward achieving the Chesapeake Bay and local stream TMDL requirements. Funding in the amount of \$24.8 million is included for Stream and Water Quality Improvements in FY 2024.

### Organizational Chart



\*Denotes functions that are included in both Fund 30010, General Construction and Contributions, and Fund 40100, Stormwater Services.

### Budget and Staff Resources

Category	FY 2022 Actual	FY 2023 Adopted	FY 2023 Revised	FY 2024 Advertised	FY 2024 Adopted
<b>FUNDING</b>					
<b>Expenditures:</b>					
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550	\$26,824,362
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636	3,870,636
Capital Equipment	1,519,045	652,000	1,019,268	895,000	895,000
Capital Projects	56,797,439	65,879,740	257,786,068	70,747,419	69,942,607
<b>Subtotal</b>	<b>\$83,313,972</b>	<b>\$95,123,010</b>	<b>\$287,772,206</b>	<b>\$101,532,605</b>	<b>\$101,532,605</b>
Less:					
Recovered Costs	(\$1,547,199)	(\$2,129,955)	(\$2,129,955)	(\$2,129,955)	(\$2,129,955)
<b>Total Expenditures</b>	<b>\$81,766,773</b>	<b>\$92,993,055</b>	<b>\$285,642,251</b>	<b>\$99,402,650</b>	<b>\$99,402,650</b>
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>					
Regular	200 / 200	208 / 208	194 / 194	208 / 208	194 / 194

### FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 program. Included are all adjustments recommended by the County Executive that were approved by the Board of Supervisors, as well as any additional Board of Supervisors' actions, as approved in the adoption of the Budget on May 9, 2023.

**Employee Compensation** \$2,275,938  
 An increase of \$2,275,938 in Personnel Services includes \$1,272,723 for a 5.44 percent market rate adjustment (MRA) for all employees and \$405,184 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2023. The remaining increase of \$598,031 is included to support employee retention and recruitment efforts that will reduce pay compression and align the County's pay structures with the market based on benchmark data.

**Other Post-Employment Benefits** (\$32,210)  
 A decrease of \$32,210 in Personnel Services reflects required adjustments associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. For more information on Other Post-Employment Benefits, please refer to Fund 73030, OPEB Trust, in Volume 2 of the FY 2024 Adopted Budget Plan.

<b>Asset Management Program</b>	(\$140,000)
Funding of \$660,000 in Operating Expenses, a decrease of \$140,000 from the <u>FY 2023 Adopted Budget Plan</u> , will support a new Asset Management Program (AMP). Funding will support the acquisition of software, servers, and consultant services to migrate asset management and related work order management into the new system. This new system will meet the future expectations for both Stormwater and Wastewater divisions and optimize service delivery for the Department of Public Works and Environmental Services.	
<b>Capital Equipment</b>	<b>\$243,000</b>
Funding of \$895,000 in Capital Equipment, an increase of \$243,000 over the <u>FY 2023 Adopted Budget Plan</u> , is included for new equipment and replacement equipment that has outlived its useful life. Replacement equipment in the amount of \$195,000 includes: \$175,000 to replace two equipment trailers and one forklift that support all maintenance and emergency response programs in transporting construction materials, light duty and snow removal equipment; and \$20,000 to replace two backpack electrofishers that are used to support the Countywide comprehensive biological monitoring program to assess the ecological health of watersheds and to satisfy regulatory requirements of the Municipal Separate Storm Sewer System (MS4) permit issued by the state (and mandated by the Clean Water Act). In addition, new equipment in the amount of \$700,000 includes: \$350,000 to retrofit older trucks with new spreader controllers and a GPS enabled system to optimize the County's winter weather operations; \$250,000 to purchase a heavy equipment simulator package that is capable of training operators on backhoes, wheel loaders, excavators, skid steers, and bulldozers; and \$100,000 to purchase a web-based GPS location system for the County's assets in order to instantly locate and check the status of all machinery, equipment, and tools.	
<b>Capital Projects</b>	<b>\$4,062,867</b>
Funding of \$69,942,607 in Capital Projects, an increase of \$4,062,867 over the <u>FY 2023 Adopted Budget Plan</u> , has been included in FY 2024 for priority stormwater capital projects.	

## Changes to FY 2023 Adopted Budget Plan

*The following funding adjustments reflect all approved changes in the FY 2023 Revised Budget Plan since passage of the FY 2023 Adopted Budget Plan. Included are all adjustments made as part of the FY 2022 Carryover Review, FY 2023 Third Quarter Review, and all other approved changes through April 30, 2023.*

<b>Carryover Adjustments</b>	<b>\$192,712,809</b>
As part of the <u>FY 2022 Carryover Review</u> , the Board of Supervisors approved funding of \$192,712,809 based on the carryover of unexpended project balances in the amount of \$190,278,892 and a net adjustment of \$2,433,917. This adjustment included the carryover of \$742,868 in operating and capital equipment encumbrances and an increase to capital projects of \$1,691,049. The adjustment to capital projects was based on the appropriation of higher than anticipated Stormwater tax revenues of \$841,515; actual Economic Development Authority (EDA) Bonds of \$376,033 and interest earnings of \$154,900 associated with the Stormwater/Wastewater Facility; operational savings of \$247,858; revenues of \$195,570 received in FY 2022 as a reimbursement from the Metropolitan Washington Council of Governments; revenues of \$30,583 collected for tree preservation and planting projects in FY 2022; revenues received in FY 2022 from the sale of capital equipment in the amount of \$24,340; and the appropriation of \$1,796, which was the result of a reconciliation of fund balances to the County's financial statements. The adjustment to capital projects was partially offset by a decrease of \$181,546 due to the transfer of Civil Penalties Fees to Fund 40200, Land Development Services.	

## Position Adjustments

\$0

In order to better support the Department of Public Works and Environmental Services' (DPWES) four core business areas and enhance department-wide initiatives, 1/1.0 FTE position was transferred from Fund 40100, Stormwater Services, to Agency 25, Business Planning and Support, in FY 2023 to serve as a Sustainability Officer and provide enterprise-level coordination and high-level policy related to the County's sustainability efforts. The funding related to this position will be provided as part of the *FY 2023 Carryover Review*. In addition, 13/13.0 FTE positions were transferred from Fund 40100, Stormwater Services, to Fund 40200, Land Development Services, in FY 2023 to better align resources and achieve efficiencies.

## Position Detail

The FY 2024 Adopted Budget Plan includes the following positions:

STORMWATER SERVICES – 194 Positions			
<b>MSMD Administration (10 positions)</b>			
1	Director, Maintenance and SW	1	Safety Analyst I
1	HR Generalist II	1	Administrative Assistant IV
1	HR Generalist I	4	Administrative Assistants III
1	Safety Analyst II		
<b>IT – Director's Office/Stormwater (1 position)</b>			
1	Network/Telecom. Analyst I		
<b>Finance – Wastewater and Stormwater (4 positions)</b>			
1	Financial Specialist IV	1	Financial Specialist I
1	Financial Specialist II	1	Administrative Assistant III
<b>Contracting Services/Material Support (5 positions)</b>			
1	Material Mgmt. Specialist III	1	Financial Specialist II
2	Contract Analysts I	1	Inventory Manager
<b>Dam Safety and Maintenance Projects/Projects and LID/Inspection and Maintenance (18 positions)</b>			
1	Public Works-Env. Serv. Manager	5	Engineering Technicians III
1	Engineer IV	2	Engineering Technicians II
1	Senior Engineer III	1	Project Manager II
2	Engineers III	2	Project Managers I
1	Ecologist III	1	Assistant Project Manager
1	Ecologist II		
<b>Field Operations (74 positions)</b>			
2	Env. Services Supervisors	3	Masons
1	Public Works-Env. Serv. Manager	1	Vehicle Maintenance Coordinator
3	Public Works-Env. Bus. Ops. Managers	5	Engineering Technicians III
2	Public Works-Env. Serv. Specialists	2	Engineering Technicians II
8	Senior Maintenance Supervisors	1	Carpenter II
5	Maintenance Supervisors	2	Equipment Repairers
2	Maintenance Crew Chiefs	1	Welder II
15	Senior Maintenance Workers	1	Welder I
10	Heavy Equipment Operators	1	Trades Supervisor
9	Motor Equipment Operators		
<b>Stormwater Infrastructure Branch (16 positions)</b>			
1	Public Works-Env. Serv. Manager	1	Senior Engineering Inspector
4	Engineers IV	2	Engineering Technicians II
1	Senior Engineer III	2	Engineering Technicians I
4	Engineers III	1	Project Manager I
<b>Transportation Infrastructure Branch (7 positions)</b>			
1	Engineer V	3	Project Managers I
1	Engineer IV	1	Engineering Technician II
1	Project Manager II		

Stormwater Planning Division (56 positions)	
1	Director, Stormwater Planning
1	Engineer V
4	Engineers IV
1	Senior Engineer III
9	Engineers III
4	Project Managers II
2	Project Managers I
4	Ecologists IV
5	Ecologists III
3	Ecologists II
2	Ecologists I
3	Project Coordinators
1	Public Works-Env. Serv. Manager
Urban Forestry (3 positions)	
1	Director, Urban Forestry Division
1	Urban Forester III
1	Project Manager I

## Performance Measurement Results by Community Outcome Area

### Environment and Energy

The objective to receive no MS4 Permit violations related to inspection and maintenance of public and private stormwater management facilities was met in FY 2020, FY 2021 and FY 2022. It is expected that this objective will also be met in FY 2023 and FY 2024. The objective to update 100 percent of the Stormwater emergency action plans was also met in prior years. It is expected that this trend will continue in both FY 2023 and FY 2024.

### Mobility and Transportation

The objective to keep 100 percent of the commuter facilities operational for 365 days was met in prior years. It is expected that this goal will be met in FY 2023 and FY 2024.

Community Outcome Area	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Environment and Energy</b>						
<b>Promoting Air, Water and Land Quality</b>						
MS4 permit violations received	0	0	0	0	0	0
Percent of Emergency Action Plans current	100%	100%	100%	100%	100%	100%
<b>Mobility and Transportation</b>						
<b>Infrastructure Condition, Sustainability and Environmental Impact</b>						
Percent of commuter facilities available 365 days per year	100%	100%	100%	100%	100%	100%

A complete list of performance measures can be viewed at  
<https://www.fairfaxcounty.gov/budget/fy-2024-adopted-performance-measures-pm>

# Fund 40100: Stormwater Services

## FUND STATEMENT

Category	FY 2022 Actual	FY 2023 Adopted Budget Plan	FY 2023 Revised Budget Plan	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
<b>Beginning Balance</b>	<b>\$90,246,043</b>	<b>\$0</b>	<b>\$192,147,379</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue:</b>					
Stormwater Service District Levy	\$88,017,253	\$94,393,055	\$94,393,055	\$100,802,650	\$100,802,650
Sale of Bonds <sup>1</sup>	93,376,033	0	0	0	0
Interest on Investments <sup>2</sup>	154,900	0	0	0	0
Stormwater Local Assistance Fund (SLAF) Grant <sup>3</sup>	2,967,180	0	629,613	0	0
Tree Preservation/Planting Fund <sup>4</sup>	30,583	0	0	0	0
Miscellaneous <sup>5</sup>	247,160	0	81,000	0	0
<b>Total Revenue</b>	<b>\$184,793,109</b>	<b>\$94,393,055</b>	<b>\$95,103,668</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Total Available</b>	<b>\$275,039,152</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Expenditures:</b>					
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550	\$26,824,362
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636	3,870,636
Recovered Costs	(1,547,199)	(2,129,955)	(2,129,955)	(2,129,955)	(2,129,955)
Capital Equipment	1,519,045	652,000	1,019,268	895,000	895,000
Capital Projects <sup>6</sup>	56,797,439	65,879,740	257,786,068	70,747,419	69,942,607
<b>Total Expenditures</b>	<b>\$81,766,773</b>	<b>\$92,993,055</b>	<b>\$285,642,251</b>	<b>\$99,402,650</b>	<b>\$99,402,650</b>
<b>Transfers Out:</b>					
General Fund (10001) <sup>7</sup>	\$1,125,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
Land Development Services (40200) <sup>8</sup>	0	0	208,796	0	0
<b>Total Transfers Out</b>	<b>\$1,125,000</b>	<b>\$1,400,000</b>	<b>\$1,608,796</b>	<b>\$1,400,000</b>	<b>\$1,400,000</b>
<b>Total Disbursements</b>	<b>\$82,891,773</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>	<b>\$100,802,650</b>
<b>Ending Balance<sup>9</sup></b>	<b>\$192,147,379</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Tax Rate Per \$100 of Assessed Value</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>	<b>\$0.0325</b>

<sup>1</sup> In FY 2022, an amount of \$93.4 million in Economic Development Authority (EDA) Bonds was issued to support the construction of the Stormwater/Wastewater Facility to consolidate operations and maximize efficiencies between the Stormwater and Wastewater Divisions.

<sup>2</sup> Interest on Investments revenue represents interest earned associated with the Stormwater/Wastewater Facility project.

<sup>3</sup> Represents previously approved Virginia Department of Environmental Quality (VDEQ) Stormwater Local Assistance Fund (SLAF) grants to support stream and water quality improvement projects. An amount of \$2,967,180 was received in FY 2022 and an amount of \$629,613 is anticipated in FY 2023 and beyond.

<sup>4</sup> Reflects revenues collected through the land development process that will support tree preservation and planting projects in FY 2023.

<sup>5</sup> Miscellaneous revenues in FY 2022 represent an amount of \$195,570 received as a reimbursement from the Metropolitan Washington Council of Governments for emergency flood response projects, an amount of \$27,250 collected in civil penalties, and an amount of \$24,340 received from the sale of capital equipment. In addition, an amount of \$81,000 is carried forward to FY 2023 to support the Paul Springs Stream Restoration project at Hollin Hills. The existing pipes will be replaced, and the Virginia Department of Transportation (VDOT) has agreed to reimburse Fairfax County for expenses up to \$81,000.

<sup>6</sup> In order to account for revenues and expenditures in the proper fiscal year, audit adjustments were reflected as an increase of \$63,612.94 to FY 2022 Capital Projects to record expenditure accruals. This impacted the amount carried forward resulting in a decrease of \$63,612.94 to the FY 2023 Revised

## Fund 40100: Stormwater Services

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*Budget Plan.* The projects affected by this adjustment were 2G25-006-000, Stormwater Regulatory Program, and SD-000031, Stream and Water Quality Improvements. The Annual Comprehensive Financial Report (ACFR) reflects all audit adjustments in FY 2022. Details of the audit adjustments were included in the FY 2023 Third Quarter Package.

<sup>7</sup> Funding in the amount of \$1,400,000 is transferred to the General Fund to partially offset central support services supported by the General Fund, which benefit Fund 40100. These indirect costs include support services such as Human Resources, Purchasing, Budget and other administrative services.

<sup>8</sup> Funding in the amount of \$208,796 was transferred to Fund 40200, Land Development Services, to reflect all revenues and expenditures associated with civil penalty activities in the new Special Revenue fund.

<sup>9</sup> Capital projects are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

## Fund 40100: Stormwater Services

### SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000	6,000,000
Dam Safety and Facility Rehabilitation (SD-000033)	68,576,104	5,039,029.28	12,188,745.52	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,546.30	82,119,862.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 1, 2023

Ms. Wendy Howard Cooper  
Director, Dam Safety and Floodplain Management  
Department of Conservation and Recreation  
East Main Street, 24<sup>th</sup> Floor  
Richmond, Virginia 23219

Reference: Community Flood Preparedness Fund, CY 2023 Round 4 Grant Applications

Dear Ms. Howard Cooper:

This is a response to the Department of Conservation and Recreation's (DCR) recent announcement of the Virginia Community Flood Preparedness Fund (CFPF) grant.

We are providing CFPF applications that contain information and request funding assistance for the following four flood prevention and protection projects.

1. Broad Branch Court Stormwater Improvement Project
2. Little Pimmit Run Tributary at Woodland Terrace
3. Richmond Highway Voluntary Land Acquisition
4. Woodglen Lake Toe Drain Repair

If one or more of these grants are awarded, Fairfax County (County) will provide the necessary match for each selected project as required by your department, subject to Fairfax County Board of Supervisors approval. It is understood that the County's total match amount for all four County applications being considered during the supplemental review may be as much as \$7,926,300.

If you have any questions or need additional assistance, please contact Joni Calmbacher, Division Director, Department of Public Works and Environmental Service, Stormwater Planning Division at 703-324-5500.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bryan J. Hill".  
Bryan J. Hill  
County Executive

Attachment: Community Flood Preparedness Fund (CFPF): Applications

Bryan J. Hill

Department of Conservation and Recreation, Virginia Community Flood Preparedness Fund

Page 2 of 2

cc:    Rachel Flynn, Deputy County Executive  
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)  
Eleanor Ku Coddng, Deputy Director, DPWES, Stormwater and Wastewater Divisions  
Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division

<b>Goal AE.1</b>	Protection: Protect Natural Resources That Enhance Resilience
<b>STRATEGY AE.1b</b>	Survey and Protect Areas that Provide Natural Resilience Benefits

**Strategy Description:** Healthy natural lands and environmentally sensitive areas are critical to the long-term resilience of Fairfax County. These areas, such as wetlands, critical habitats, biodiverse land, natural shorelines, and healthy stream corridors, can reduce our climate vulnerabilities and enhance resilience in several ways. They can serve as natural barriers against severe storms, absorb excess flood waters and storm surge energy, protect downstream communities, reduce erosion, mitigate against extreme heat, and support the biodiversity of ecosystems threatened by climate change, among other benefits. These areas and natural resources provide many additional co-benefits, such as water quality protection and protection of areas with historical, archaeological, or recreational significance. This strategy involves the surveying, mapping, prioritization, and conservation of natural areas that currently lack sufficient protection.

#### Climate Hazards Addressed:



<b>Lead:</b>	FCPA, NVSWCD	
<b>Partners:</b>	DPD, DPWES, FCDOT, OCA, OEEC, UFMD	
<b>Timeline:</b>	Long-Term (5-8 years)	
<b>Cost:</b>	\$\$\$ (\$500k - \$1 million)	
<b>Existing Staff:</b>	Partial	

#### Implementation Actions:

i.	Identify and secure additional staff capacity and/or consultant support needed to implement this strategy.
ii.	Leverage the Consolidated Natural Resources Management Plan (Strategy AE1.a) and other applicable plans as a starting point for identification of environmentally sensitive areas that could be candidates for more stringent protection. To thoroughly analyze these candidate areas, complete field surveys of public land to verify and document lands that naturally enhance climate resilience, contain sensitive and/or rare habitats, and areas with extensive invasive species in need of management. Consider leveraging existing GIS data, such as tree canopy cover and land use type, to inform field survey work. Partner with state and federal agencies, as applicable, to coordinate survey work and data collection. Build off of existing and ongoing surveys and documentation from FCPA and NVRC.
iii.	Informed by data collection under this strategy as well as available county data, create an updated GIS database of natural areas in need of stronger protections for climate resilience, including lands with sensitive and/or rare habitat and species and high-quality natural resources areas.
iv.	Based upon the field surveys, GIS database, and <a href="#">Resilient Fairfax Vulnerability and Risk Assessment</a> , identify land prioritized for conservation easements, Natural Area Preserve designation, or other protective status to enhance or preserve natural climate resilience.
v.	Explore strategic partnerships, grant opportunities and/or financing opportunities for conservation and protection of identified environmentally sensitive areas, including but not limited to: tidal and freshwater wetlands, intermittent streams, shorelines, and habitat for key species. Partners in this effort may include, but are not limited to: Department of Defense, National Park Service, Northern Virginia Regional Parks, Northern Virginia Conservation Trust, and Virginia Department of Conservation and Recreation.

**Key Performance Indicators:**

- Total amount of land area surveyed, and number of field surveys completed.
- Amount secured in grant and/or other funding sources for conservation.
- Percent of eligible acres of environmentally sensitive land conserved and/or protected within the county.

**Equitable Implementation:**

- ✓ Consider how the protection of environmentally sensitive areas could affect development and/or change land values.
- ✓ Consider whether the benefits of protecting environmentally sensitive areas will be distributed equitably.
- ✓ Along with protecting environmentally sensitive areas, include aspects of environmental restoration in low-income neighborhoods so the benefits that come from these ecosystems are equitably distributed.

**Funding and Resource Opportunities:**

- BRIC
- Coastal and Estuarine Land Conservation Program
- Conservation Reserve Enhancement Program
- Emergency Coastal Resilience Fund
- Land and Water Conservation Fund
- National Coastal Resilience Fund
- National Coastal Wetlands Conservation Grant Program
- Virginia Environmental Endowment
- Wildlife Conservation Society Climate Adaptation Fund
- Virginia Land Conservation Fund
- Virginia Open Space Lands Preservation Trust Fund
- Virginia Recreational Trails Fund

**Co-Benefits:**

## ADDITIONAL STRATEGIES FOR GOAL AE.1

**Strategy  
AE.1c****Update Provisions for Conservation Easements**

Update the provisions for conservation easements to include potential canopy credit as well as resources needed to maintain or improve the condition of the resource in perpetuity.

**Strategy  
AE.1d****Integrate Climate Change Considerations into Urban Forestry Program**

Consider future climate conditions to support long term tree health, including consideration for tree selection, required maintenance, and planting processes.

**Dyke Marsh Wildlife Preserve Restoration**

Dyke Marsh is the Washington metropolitan region's largest freshwater wetland and one of the best studied wetlands in the nation. Located in Fairfax County, the marsh is home to 300 different plant species including six species of concern. The marsh began growing 2,500 years ago. During the 20th century, over 100 acres of the marsh was dredged away for mining of sand and gravel. Erosion and sea level rise pose additional threats. The USACE and NPS have been working on Dyke Marsh stabilization. Phase I is complete, and Phase II was scheduled to start summer 2022. Restoration and stabilization of marshes like Dyke Marsh not only provide critical habitat for a variety of wildlife, but also provide storm buffers, helping to reduce wave energy and prevent erosion. Additionally, our marshes act as natural filters to clean the waters of the Potomac River.



County of Fairfax, Virginia

## **FLOODPLAIN MANAGEMENT PLAN**

(Part of the Northern Virginia Regional Hazard Mitigation Plan)

### **PROGRESS REPORT**



*Depth of flooding above building Lowest Point of Entry (LPE) for  
100-year tidal elevation at Belle Haven*

**STORMWATER PLANNING DIVISION**  
**DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES**  
A Fairfax County, VA Publication, July 2023

the FIRM and FIS in 2024. The County is required to adopt the maps within six months of receiving the LFD.

**XI. Fairfax County Mitigation Action 21 (2010):**

**Develop an outreach program aimed at assisting private dam owners with proper operation and maintenance**

SWPD will identify specific outreach techniques for the private dam owners when resources become available.

**XII. Fairfax County Mitigation Action 23 (2010):**

**Identify gaps in current recovery planning efforts within the County**

In 2012, the County published the Pre-Disaster Recovery Plan, which was scheduled to be revised in 2017. During the review process, gaps were identified and readdressed. Pre-Disaster Recovery plan was updated in 2020. The new 2020 plan was adopted/signed by the County Executive in April 2020. DEMS is planning on starting a review and revision process in the fall/winter timeframe in 2023.

**XIII. Fairfax County Mitigation Action 26 (2010):**

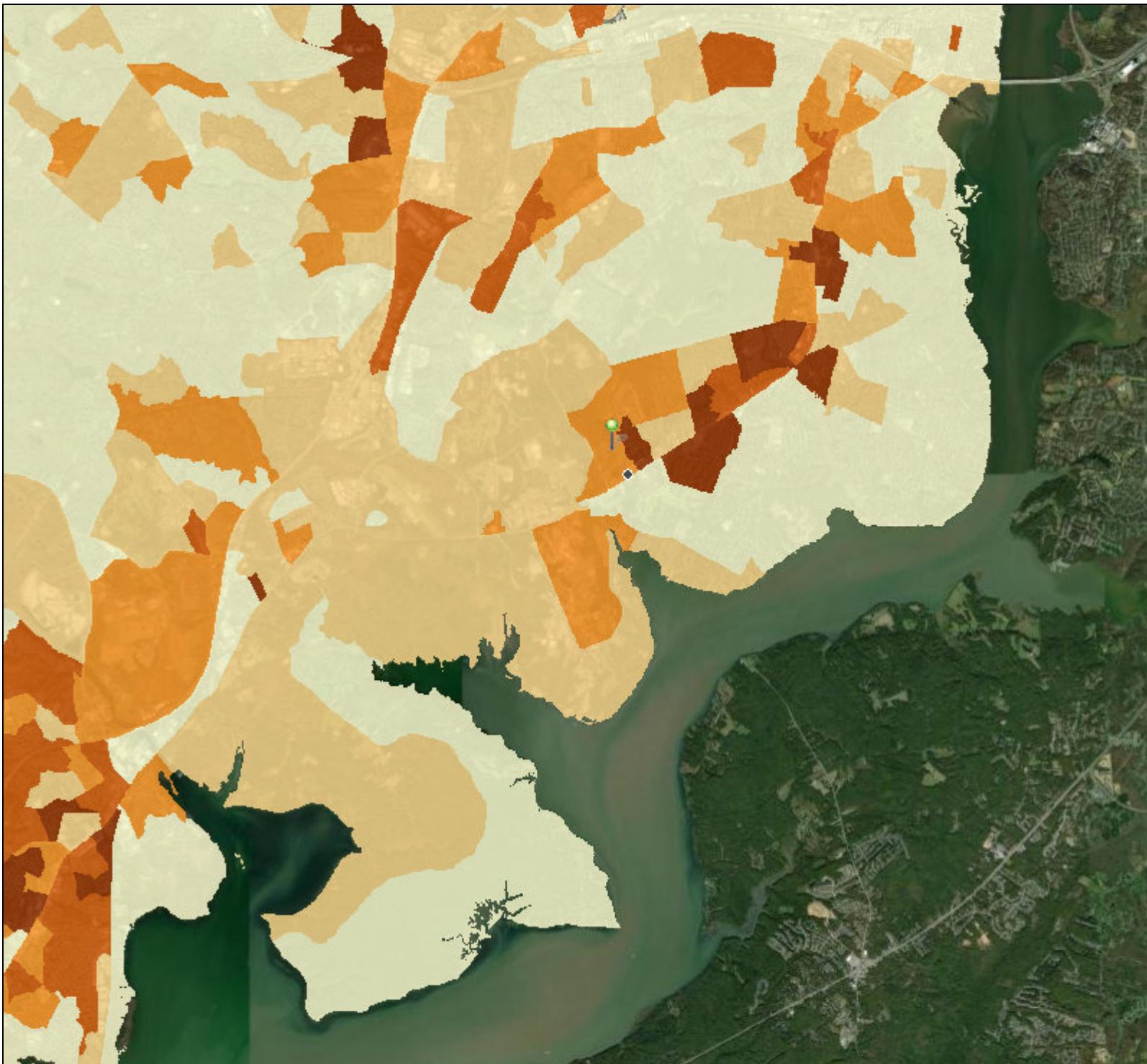
**Use fee simple and/or permanent easement to prevent development in the highest priority undeveloped floodplain (and/or wetlands) areas. Work with land trusts to purchase the land or conservation easements. Use these areas as public open space for passive recreational uses**

FCPA continues to acquire land in undeveloped floodplain areas via fee simple acquisitions, developer dedications, donations, and easements. In FY 2023, 13.6 acres of resource protected land was acquired in fee simple to provide continuous natural habitat in the Accotink Stream Valley Park in Providence District.

**XIV. Fairfax County Mitigation Action 27 (2010):**

**Continue development of a comprehensive River Flood Response System for New Alexandria/Belle View and Huntington in partnership with the National Weather Service (NWS) and the U.S. Army Corps of Engineers**

MSMD continues to coordinate with NWS on updates to the County's flood warning system. SWPD is also continuing to work with the U.S. Army Corps of Engineers to develop rainfall/tide triggers for the community protected by the tide gate at New Alexandria/Belle View.

**Legend**

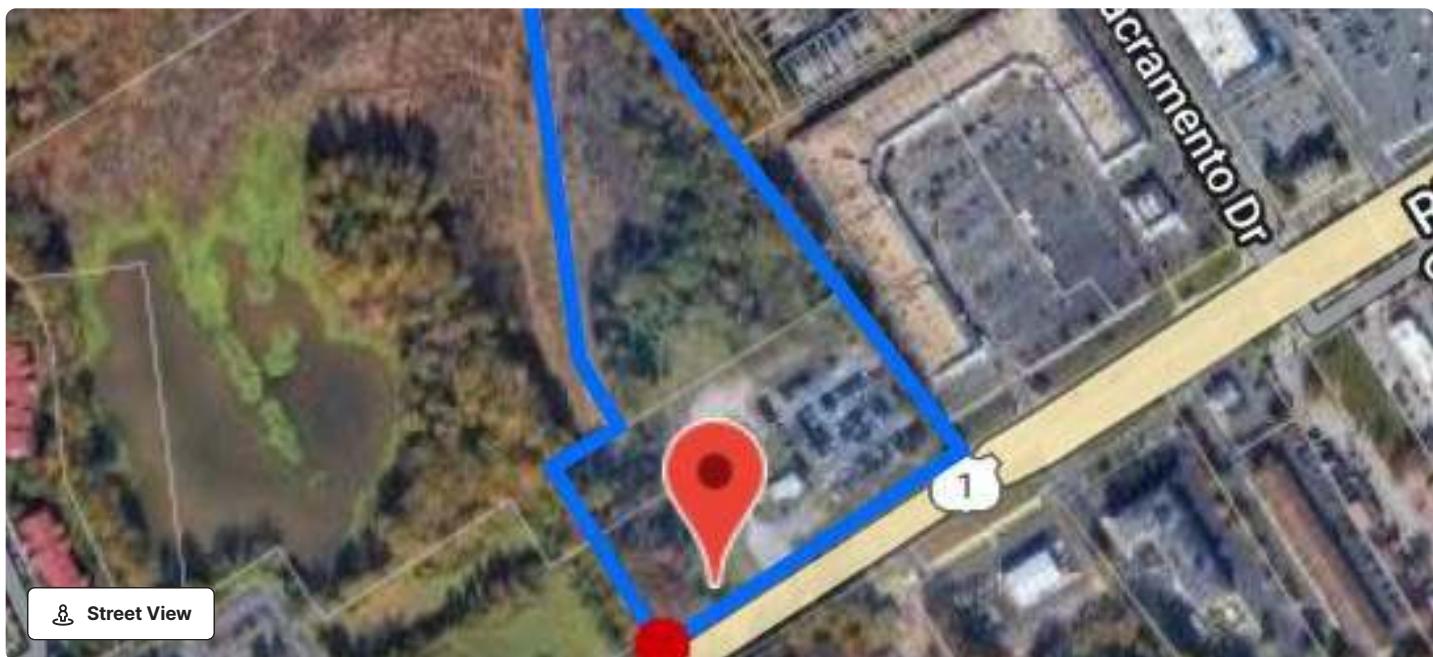
Virginia Social Vulnerability Block Groups 2020	Low Social Vulnerability	Very High Social Vulnerability
	Moderate Social Vulnerability	
	High Social Vulnerability	
	Very Low Social Vulnerability	

Disclaimer: The Virginia Flood Risk Information System (VFRIS) includes information from the National Flood Hazard Layer, National Flood Insurance Program, and Digital Flood Insurance Rate Maps provided by the Federal Emergency Management Agency, as well as data from the National Fish and Wildlife Service, U.S. Geological Survey, and Esri. These data are provided on an 'as is' basis. The Virginia Department of Conservation & Recreation (DCR), Virginia Institute of Marine Science (VIMS), nor other contributors of said data shall not be held liable for any use or application of the data provided whatsoever, whether or not that use is improper or incorrect, and assume no responsibility for the use or application of the data or information derived from interpretation of the data.

1:144,447.64  
0 0.5 1 2 mi



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FOR SALE - ACTIVE

8800 Richmond Hwy, Alexandria, VA 22309

**\$4,000,000**

Est. \$25,988/mo [Get pre-approved](#)

Beds

Baths

**2.55**

Acres (Lot)



Tour with a Redfin Premier agent

OCT  
**25**  
WEDNESDAY

OCT  
**26**  
THURSDAY

OCT  
**27**  
FRIDAY



[TOUR IN PERSON](#)

[TOUR VIA VIDEO CHAT](#)

**Schedule tour**

Next Available: Today at 3:00 PM

Redfin agents led **27 tours** in 22309 in the last 30 days

[Ask a question](#)

(703) 635-3874

### Alexandria is a hot market

33% of homes accept an offer within 2 weeks. Tour it before it's gone!

Today: **3:00 pm • 4:00 pm • 5:00 pm • 6:00 pm • 7:00 pm • More times**

### About this home

Three lots in total (1092010020, 1092010019, 1092010018C) consisting of 8.17 total acres. Amazing opportunity to build off Route 1 in Alexandria. Not all parcels are buildable. Please call LA with questions.

23 days on Redfin

\$36 per sq ft land

Vacant land

2% buyer's agent fee

2.55 acres

Listed by Dimitri Apostolopoulos • Keller Williams Capital Properties • **703-964-1290** (broker)

Redfin checked: **5 minutes ago** (Oct 25, 2023 at 12:25pm) • Source: BRIGHT MLS #VAFX2150016



— min • [Add a commute](#)

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**Diane Freeman**

**241**  
Deals

**\$137M**  
Volume

**\$2.0M**  
Highest Deal



Write a message...

Get in touch

Text or call **(703) 635-3874**

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## Payment calculator

**\$25,497 per month** ⓘ   [Reset](#)

[Get pre-approved](#)

● Principal and interest	\$23,594
● Property taxes	\$836
● Homeowners' insurance	\$1,067

Down payment

20% (\$800,000) 

Home price

\$4,000,000 

Loan details

30-yr fixed jumbo, 8.05% 

...

**Down payment** ×

Cash ⓘ

\$800,000	20%
-----------	-----



Have a home to sell?

[Add my home equity](#)

Cash	\$800,000
Home Equity	\$0

Total Down: **\$800,000 (20%)**

[Additional resources](#)

## Additional resources

### \$ Down payment assistance

View down payment assistance programs for this home.



### ⚡ Electricity and solar

Working on getting current and accurate energy info for this home

### 📡 Internet

View Internet plans and providers available for this home



Provided by Down Payment Resource, Wattbuy, and AllConnect [i](#)

## Additional services

### Find a VA Loan

[0% Down VA Home Loans: Get Quote](#)

Advertisement



### Home Insurance

[Compare Homeowner Insurance Quote](#)

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## Open houses

No upcoming open houses

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Today: [3:00 pm](#) • [4:00 pm](#) • [5:00 pm](#) • [6:00 pm](#) • [7:00 pm](#) • [More times](#)

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## Property details for 8800 Richmond Hwy

### Exterior

#### Property Information

- Federal Flood Zone
- Horse: No
- Improvement Assessed Value: \$78,730
- Ownership Interest: Fee Simple

#### Land Information

- Additional Parcels
- Additional Parcels Description: 1092010020 - C-8, 1092010019 - R-2, 1092010018C - R-2
- Current Use: Storage Yard
- Possible Use: Warehouse, Storage Yard, Shopping Center, Senior Assisted/Day Care, Retail, Residential, Multi-Family, Mixed, Mini-Storage, Land/Lot Only, Investment, Industrial, Flex Space, Development, Commercial, Automotive

#### Building Information

- Construction Not Completed

#### Lot Information

- Ground Rent Payment Frequency: Annually
- Lot Size Dimensions: 8.17 Acres
- Lot Dimensions Source: Estimated
- Tidal Water: No

#### Farm Information

- Farm Land Preservation: No

## Financial

### Tax Information

- Agricultural Tax Due: No
- County Tax: \$8,765
- Tax Assessed Value: \$800,450

- Tax Year: 2023

- Tax Annual Amount: \$10,034

### Assessments Information

- Year Assessed: 2023

## Utilities

### Utilities Information

- 200+ Amp Service
- Water Source: Public

- Municipal Trash: No

## Location

### School Information

- School District Name: FAIRFAX COUNTY PUBLIC SCHOOLS
- School District Source: Listing Agent

### Location Information

- Outside City Limits
- Directions: Route 1 Alexandria to 8800 Richmond Hwy.

Details provided by BRIGHT MLS and may not match the public record. [Learn more.](#)

Advertisement

[Report ad](#)

## Sale and tax history for 8800 Richmond Hwy

### Sale History

### Tax History

### Today

Oct 1, 2023      Listed (Active)      \$4,000,000  
Date                      BRIGHT MLS #VAFX2150016      Price

## Public facts and zoning for 8800 Richmond Hwy

Beds

— Lot Size

2.55 Acres

Baths

— Style

Other

Finished Sq Ft

— Year Built

—

Unfinished Sq. Ft.	—	Year Renovated	—
Total Sq. Ft.	1,080	County	Fairfax County
Stories	1	APN	1092 01 0020

Home facts updated by county records on Aug 24, 2023.

## Additional resources



### Zoning

Working on getting current and accurate zoning information for this home. [Learn more](#)

## Schools

GreatSchools Summary Rating

2/10	<b>Washington Mill Elementary School</b> Public, PreK-6 • Serves this home • 1.5mi	>
3/10	<b>Whitman Middle School</b> Public, 7-8 • Serves this home • 3.3mi	>
3/10	<b>Mount Vernon High School</b> Public, 9-12 • Serves this home • 2.0mi	>

School data is provided by GreatSchools, a nonprofit organization. Redfin recommends buyers and renters use GreatSchools information and ratings as a first step, and conduct their own investigation to determine their desired schools or school districts, including by contacting and visiting the schools themselves.

Redfin does not endorse or guarantee this information. School service boundaries are intended to be used as a reference only; they may change and are not guaranteed to be accurate. To verify school enrollment eligibility, contact the school district directly.

## Around this home

[Redfin](#) > [Virginia](#) > [Fairfax County](#) > [22309](#)

### Transportation near 8800 Richmond Hwy

<b>65</b> /100	<b>44</b> /100	<b>67</b> /100
Somewhat walkable Walk Score®	Some transit Transit Score®	Bikeable Bike Score®



### Places

5 groceries, 27 restaurants, 5 parks



### Transit

## Climate risks

### About climate risks

Most homes have some risk of natural disasters, and may be impacted by climate change due to rising temperatures and sea levels.

#### Risk Factor ⓘ

-  **Flood Factor - Severe** >  
99% chance of flooding in next 30 years
-  **Fire Factor - Moderate** >  
0.15% chance of being in a wildfire in next 30 years
-  **Heat Factor - Severe** >  
7 days above 104° expected this year, 16 days in 30 years
-  **Wind Factor - Moderate** >  
27% chance of strong winds in next 30 years

[View full Risk Factor report](#)

Provided by First Street Foundation ⓘ

## Redfin Estimate for 8800 Richmond Hwy

**\$3,737,454**

▼ **\$263K** under list price of \$4.00M

### Nearby comparable homes

The Redfin Estimate uses 6 recent nearby sales, priced between \$500K to \$1.6M.



SOLD AUG 14, 2023

**\$1,000,000** Sold Price

3 beds 2.5 baths 2,521 sq ft  
8737 Lukens Ln, Alexandria, VA 22309

↓ smaller lot



SOLD SEP 22, 2023

**\$580,000** Sold Price

5 beds 2.5 baths 1,296 sq ft  
8309 Keeler St, Alexandria, VA 22309

↓ smaller lot

[View comparables on map](#)

## Nearby similar homes

Homes similar to 8800 Richmond Hwy are listed between \$65K to \$6M at an average of \$255 per square foot.

**\$400,000**

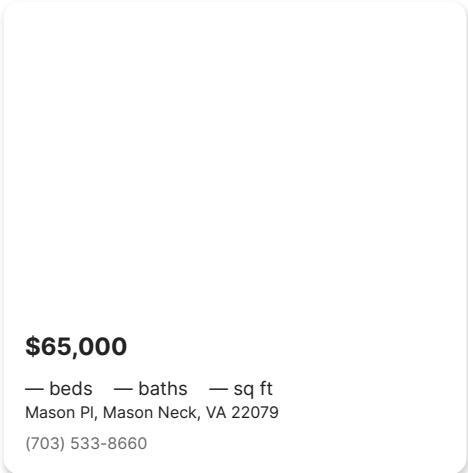
— beds — baths — sq ft  
4875 Dayton Pl, Indian Head, MD 20640  
(301) 375-7976

**\$5,950,000**

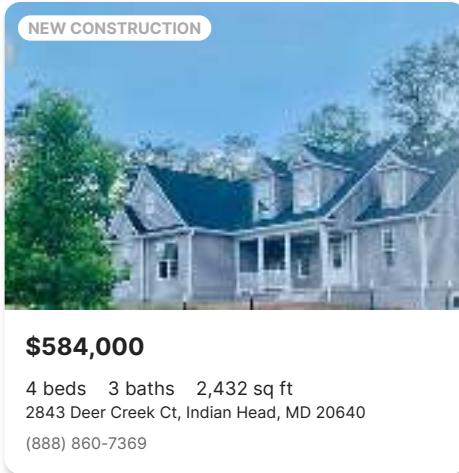
— beds — baths — sq ft  
11295 Cresswell Lndg, Lorton, VA 22079  
(703) 425-8000

**\$185,000**

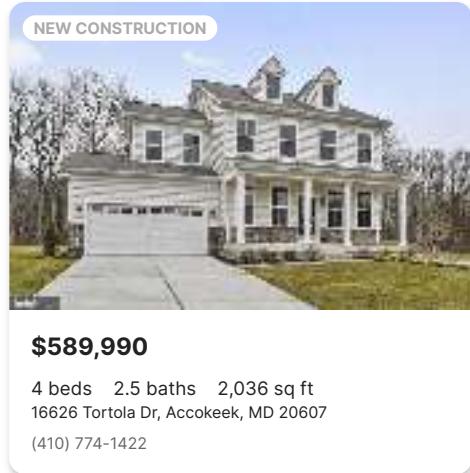
— beds — baths — sq ft  
7638 Belmont Landing Rd, Lorton, VA 22079

**\$65,000**

— beds — baths — sq ft  
Mason Pl, Mason Neck, VA 22079  
(703) 533-8660

**\$584,000**

4 beds 3 baths 2,432 sq ft  
2843 Deer Creek Ct, Indian Head, MD 20640  
(888) 860-7369

**\$589,990**

4 beds 2.5 baths 2,036 sq ft  
16626 Tortola Dr, Accokeek, MD 20607  
(410) 774-1422

[View more homes](#)

## Nearby recently sold homes

Sorry, we don't have any nearby similar homes to display. See all recently sold homes in [22309](#)

## More real estate resources

[New Listings in 22309](#)[Zip Codes](#)[Nearby Cities](#)[Neighborhoods](#)[Popular Searches](#)

8617-D Beekman Pl Unit 17DD  
8508 Washington Ave  
3901 Belle Rive Ter  
8408 Orinda Ct #277

7980 Silverada Pl Unit C  
3805 Laramie Pl Unit H  
8533 Richmond Ave  
8505 Rosemont Cir

## Frequently asked questions for 8800 Richmond Hwy

What is 8800 Richmond Hwy?



How long has this home been listed on Redfin?



How many photos are available for this home?



What comparable homes are near this home?



How much is this home worth?



What's the full address of this home?



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Careers

Find homes faster



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GreatSchools Ratings provided by [GreatSchools.org](#).

Ann Jennings  
*Secretary of Natural and Historic  
 Resources and Chief Resilience Officer*

Clyde E. Cristman  
*Director*



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

January 10, 2022

Joni Calmbacher, PE, CFM  
 Project Manager II  
 DPWES, Stormwater Planning Division  
 Watershed Projects Implementation Branch – South  
 12000 Government Center Parkway Fairfax, VA 22035

RE: Fairfax County Resilience Plan Submission - CFPF

Dear Ms. Calmbacher,

Thank you for providing an overview of your Resilience Plan, and informing DCR of the various plans that Fairfax County will be utilizing to fulfill the Resilience Plan submission requirements. After careful review and consideration, the Virginia Department of Conservation and Recreation has deemed the Plan complete and meets all the criteria outlined in the 2021 Community Flood Preparedness Grant Manual. This approval will remain in effect for a period of three years, ending on January 11, 2025.

The following elements were evaluated as part of this review:

**1. Element 1: It is project-based with projects focused on flood control and resilience. DCR RESPONSE**

Meets criteria as written.

- a. Project-based: Fairfax County is divided into 30 watersheds which have been addressed in 11 major watershed management plans. Each of the watershed management plans contains projects and watershed management area restoration strategies. The *2017 Northern Virginia Hazard Mitigation Plan* was a regional effort involving nineteen counties, including Fairfax County, and outlines specific mitigation projects for each participating community in order to reduce vulnerability and exposure to future hazards, including flooding events. The *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* contains projects at various locations throughout Fairfax County. The projects included and described in the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management* align with the established *Comprehensive Plan* objectives. The *Resilient Critical*

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

*Infrastructure Roadmap for Northern Virginia* contains a database of resilience projects throughout northern Virginia, including Fairfax County.

**2. Element 2: It incorporates nature-based infrastructure to the maximum extent possible. DCR RESPONSE**

Meets criteria as written.

- a. The 2020 *Regional Collaboration to Build Community Resilience in Northern Virginia* expanded upon *The Roadmap*, to include maximization of green infrastructure. Nature-based solutions are also presented in the *Fairfax County Watershed Management Plan* and the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*.

**3. Element 3: It includes considerations of all parts of a locality regardless of socioeconomics or race. DCR RESPONSE**

Meets criteria as written.

- a. All parts of a locality: The *Northern Virginia Hazard Mitigation Plan* discusses the demographic and economic trends throughout the entirety of Fairfax County.
- b. Social vulnerability: The *Regional Collaboration to Build Community Resilience in Northern Virginia* presents a more comprehensive approach that includes an assessment of the socioeconomic impacts of infrastructure disruptions on vulnerable populations that will be taken into account as well as the socioeconomic benefits of infrastructure investment. This expanded upon objectives contained within *The Roadmap*, to ensure equitable access to resilient critical infrastructure.
- c. Demographic Analysis: Population and demographic characteristics outlined within the *Northern Virginia Hazard Mitigation Plan*. The *Fairfax County Comprehensive Plan* also looks at demographics and social factors and utilizes this information to support the Human Services section of the *Comprehensive Plan*.

**4. Element 4: It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation. DCR RESPONSE**

Meets criteria as written.

- a. Coordination with other local and inter-jurisdictional projects, plans and activities: Objective 4: Strengthen Regional Resilience Through Innovative Partnerships, Programs, and Pilots contained within *Resilient Critical Infrastructure Roadmap for Northern Virginia* focuses on coordination with local and inter-jurisdictional agencies and aligning strategies and programs. The *Comprehensive Plan for Fairfax County, Virginia* was adopted by the Board of Supervisors, Planning Commission, The Department of Planning and Zoning, and the Department of Transportation, and guides all of the plans presented in the Resilience Plan

submission for Fairfax County. The *Northern Virginia Hazard Mitigation Plan* was a collaborative effort that was adopted by all impacted localities.

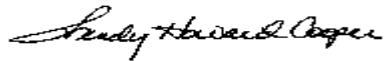
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater Management*. Phased implementation plans presented in the *Fairfax County Watershed Management Plans*.
- 5. **Element 5: Is based on the best available science, and incorporates climate change, sea level rise, storm surge (where appropriate), and current flood maps.**

Meets criteria as written.

- a. The 2018 *Resilient Critical Infrastructure Roadmap for Northern Virginia (Roadmap)* incorporates best available science and identifies actions to potentially decrease the severity of future consequences emanating from climate and extreme weather, to include sea level rise and storm surge. *Sea Level Rise: Impact on Northern Virginia* is an interactive story map and dashboard that was created in 2019 to convey the impact of sea level rise scenarios. The *Northern Virginia Hazard Mitigation Plan* includes analyses of natural hazards based on best available science to include flooding, sea level rise and land subsidence, tropical and coastal storms, and shoreline erosion.

VA DCR looks forward to working with you as you work to make Fairfax County a more resilient community. If you have questions or need additional assistance, please contact us at [cfpf@dcr.virginia.gov](mailto:cfpf@dcr.virginia.gov). Again, thank you for your interest in the Community Flood Preparedness Fund.

Sincerely,

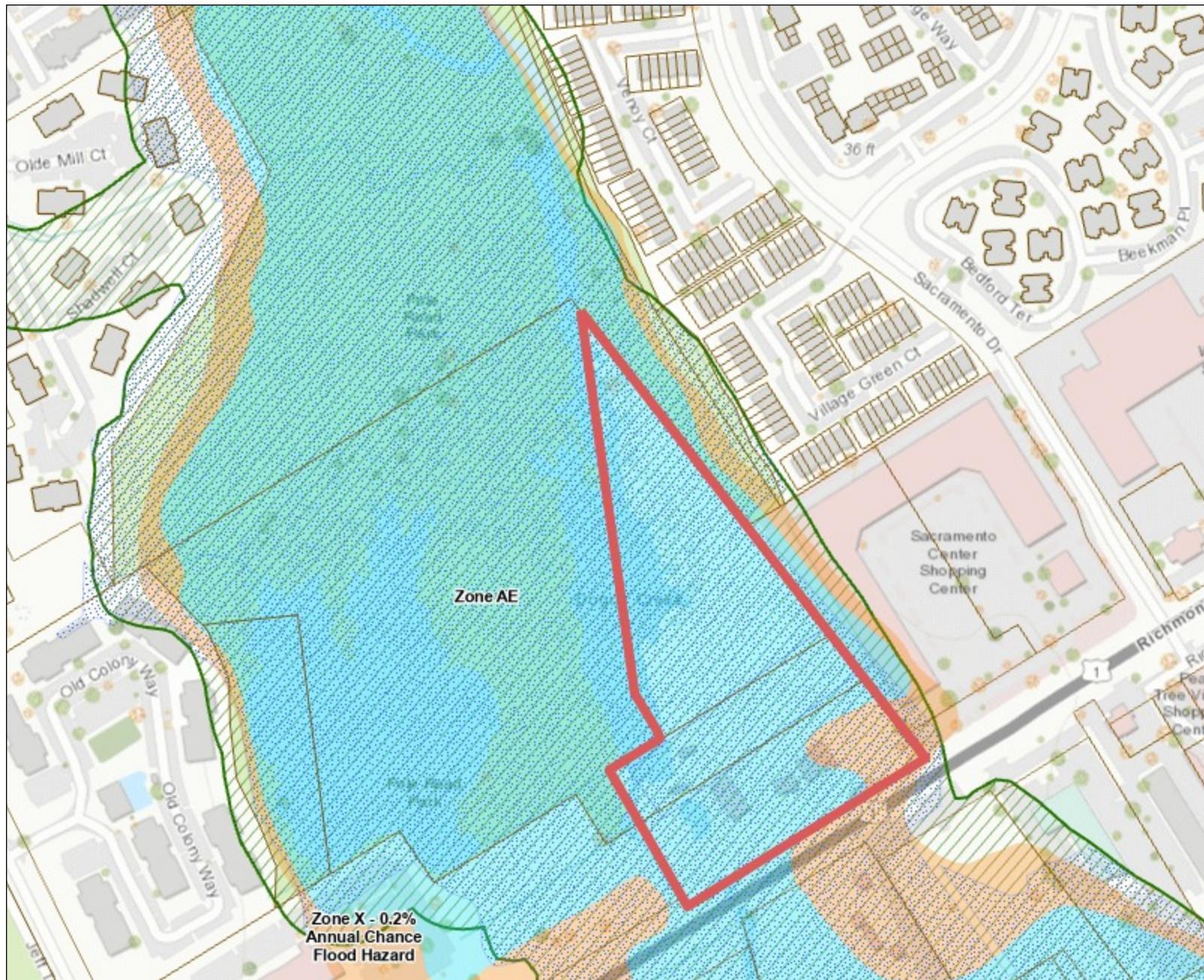


Wendy Howard Cooper, Director  
Dam Safety and Floodplain Management

cc: Darryl Glover, DCR



8800 Richmond Highway, Alexandria, VA 22309



0

752

1,505 Feet

This map is intended for reference purposes only. Fairfax County does not provide any guarantee of the accuracy or completeness regarding the map information.



#### Legend

- Parcels
- Flood Plain Recorded
- FEMA Flood Hazard Areas**
  - Zone A Without Base Flood Elevation AH With BFE
  - Regulatory Floodway
  - Zone X - 0.2% Annual Chance Flood Hazard
  - Zone X - Area With Reduced Flood
- Resource Protection Areas**
  - 1993 RPAs
  - 2003 RPAs
  - 2003 (Rev) RPAs

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette



77°8'2"W 38°43'25"N



Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

### SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

### OTHER AREAS OF FLOOD HAZARD

- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

### OTHER AREAS

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

### OTHER FEATURES

- Digital Data Available
- No Digital Data Available
- Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/23/2023 at 3:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



## Benefit-Cost Calculator

V.6.0 (Build 20231011.1703 | Release Notes)

Attachment 13

## Benefit-Cost Analysis

Project Name: 8800 Richmond Highway



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Acquisition @ 38.7195380; -77.1283109		Riverine Flood	\$ 4,246,415	\$ 4,000,000	1.06	\$ 9,403,581	\$ 4,000,000	2.35
<b>TOTAL (SELECTED)</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>
<b>TOTAL</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>

## Property Configuration

<b>Property Title:</b>	Acquisition @ 38.7195380; -77.1283109
<b>Property Location:</b>	22309, Fairfax, Virginia
<b>Property Coordinates:</b>	38.7195380398629, -77.12831090070694
<b>Hazard Type:</b>	Riverine Flood
<b>Mitigation Action Type:</b>	Acquisition
<b>Property Type:</b>	Non-Residential Building
<b>Analysis Method Type:</b>	Modeled Damages

## Cost Estimation

Acquisition @ 38.7195380; -77.1283109

<b>Project Useful Life (years):</b>	100
<b>Project Cost:</b>	\$4,000,000
<b>Number of Maintenance Years:</b>	100 Use Default:Yes
<b>Annual Maintenance Cost:</b>	\$0

## Hazard Probabilities Parameters - Flood

Acquisition @ 38.7195380; -77.1283109

**Lowest Floor Elevation of the Property (ft):** 0

**Streambed Elevation at the Property Location (ft):** 0

**Use Default Recurrence Intervals:** Use Defau **No**

## Discharge

Acquisition @ 38.7195380; -77.1283109

### BEFORE MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

### AFTER MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

## Estimated Annual Damages by Category

Acquisition @ 38.7195380; -77.1283109

## Before Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## After Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## Building Information

Acquisition @ 38.7195380; -77.1283109

**Non-Residential Occupancy Type:** Select Non-Residential Building Use**Building Type:****Building Is Engineered:** No**NFIP:** No

## Standard Benefits - Building

Acquisition @ 38.7195380; -77.1283109

**Depth Damage Curve:** Use Default:Yes**Building Size (sq.ft):** 0**Building Replacement Value (BRV) (\$/sq.ft):** \$100 Use Default:Yes**Demolition Threshold (%):** 50.00% Use Default:Yes**Expected Annual Losses due to Building Damages before Mitigation:** \$0**Expected Annual Losses due to Building Damages after Mitigation:** \$0**Expected Annual Benefits - Building:** \$0

## Depth Damage Curve - Building

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION				AFTER MITIGATION			
	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)

## Standard Benefits - Contents

Acquisition @ 38.7195380; -77.1283109

<b>Contents Value in Dollars:</b>	\$0	Use Default:Yes
<b>Expected Annual Losses due to Content Damages before Mitigation:</b>	\$0	
<b>Expected Annual Losses due to Content Damages after Mitigation:</b>	\$0	
<b>Expected Annual Benefits - Content:</b>	\$0	

## Depth Damage Curve - Contents

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Percent (%)	Damage Value (\$)	Percent (%)	Damage Value (\$)

## Standard Benefits - Displacement

Acquisition @ 38.7195380; -77.1283109

<b>Monthly Displacement Cost (\$/sq.ft/month):</b>	0	Use Default:Yes
<b>One-Time Displacement Cost (\$/sq.ft):</b>	0	Use Default:Yes
<b>Expected Annual Losses due to Displacement Damages before mitigation:</b>	\$0	
<b>Expected Annual Losses due to Displacement Damages after Mitigation:</b>	\$0	
<b>Expected Annual Losses - Displacement:</b>	\$0	

## Depth Damage Curve - Displacement

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Loss of Function/Loss of Income

Acquisition @ 38.7195380; -77.1283109

<b>Annual Operating Budget:</b>	\$0
<b>Loss of Function/Loss of Income Per Day:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income before mitigation:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income after mitigation:</b>	\$0
<b>Expected Annual Benefits - Expected Annual Benefits - Loss of Function/Loss of Income:</b>	\$0

Depth Damage Curve - Loss of Function/Loss of Income  
Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Street Maintenance Costs

Acquisition @ 38.7195380; -77.1283109

Total Annual Street Maintenance Budget (\$): \$0

Number of Street Miles Maintained: 0

Street Miles that will not require future maintenance: 0

Expected Annual Street Maintenance Benefits: \$0

## Standard Benefits - Volunteer Costs

Acquisition @ 38.7195380; -77.1283109

Number of Volunteers (volunteers/event): 0

Number of Days of Lodging: 0

Expected Annual Volunteer Benefits: \$0

## Standard Benefits - Ecosystem Services

Acquisition @ 38.7195380; -77.1283109

Total Project Area (acres): 8

Percentage of Urban Green Open Space: 0.00%

Percentage of Rural Green Open Space: 0.00%

Percentage of Riparian: 100.00%

Percentage of Coastal Wetlands: 0.00%

Percentage of Inland Wetlands: 0.00%

Percentage of Forests: 0.00%

Percentage of Coral Reefs: 0.00%

Percentage of Shellfish Reefs: 0.00%

Percentage of Beaches and Dunes: 0.00%

Expected Annual Ecosystem Services Benefits: \$297,592

**Benefits-Costs Summary**

Acquisition @ 38.7195380; -77.1283109

**Total Standard Mitigation Benefits:** \$4,246,415**Total Social Benefits:** \$0**Total Mitigation Project Benefits:** \$4,246,415**Total Mitigation Project Cost:** \$4,000,000**Benefit Cost Ratio - Standard:** 1.06**Benefit Cost Ratio - Standard + Social:** 1.06

Applicants must have prior approval from the Department to submit applications, forms, and supporting documents by mail in lieu of the WebGrants portal.

## Appendix A: Application Form for Grant and Loan Requests for All Categories

---

Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

Name of Local Government:

Category Being Applied for (check one):

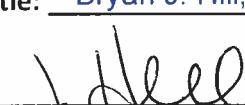
Capacity Building/Planning

Project

Study

NFIP/DCR Community Identification Number (CID) 515525

Name of Authorized Official and Title: Bryan J. Hill, County Executive

Signature of Authorized Official: 

Mailing Address (1): 12000 Government Center Parkway

Mailing Address (2): Suite 552

City: Fairfax State: VA Zip: 22035

Telephone Number: (703) 324-2531 Cell Phone Number: ( ) NA

Email Address: CEXBryanHill@fairfaxcounty.gov

Contact and Title (If different from authorized official): Joni Calmbacher

Mailing Address (1): 12000 Government Center Parkway

Mailing Address (2): Suite 449

City: Fairfax State: VA Zip: 22035

Telephone Number: (703) 324-5500 Cell Phone Number: (\_\_\_\_) NA

Email Address: Joni.Calmbacher@fairfaxcounty.gov

Is the proposal in this application intended to benefit a low-income geographic area as defined in the Part 1 Definitions? Yes        No X

**Categories (select applicable activities that will be included in the project and used for scoring criterion):**

**Capacity Building and Planning Grants**

- Floodplain Staff Capacity.
- Resilience Plan Development
  - Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans.
  - Resource assessments, planning, strategies, and development.
    - Policy management and/or development.
    - Stakeholder engagement and strategies.
- Other: \_\_\_\_\_

**Study Grants (Check All that Apply)**

- Studies to aid in updating floodplain ordinances to maintain compliance with the NFIP, or to incorporate higher standards that may reduce the risk of flood damage. This must include establishing processes for implementing the ordinance, including but not limited to, permitting, record retention, violations, and variances. This may include revising a floodplain ordinance when the community is getting new Flood Insurance Rate Maps (FIRMs), updating a floodplain ordinance to include floodplain setbacks, freeboard, or other

higher standards, RiskMAP public noticing requirements, or correcting issues identified in a Corrective Action Plan.

- Revising other land use ordinances to incorporate flood protection and mitigation goals, standards, and practices.
- Conducting hydrologic and hydraulic (H&H) studies of floodplains. *Changes to the base flood, as demonstrated by the H&H must be submitted to FEMA within 6 months of the data becoming available.*
- Studies and Data Collection of Statewide and Regional Significance.
- Revisions to existing resilience plans and modifications to existing comprehensive and hazard.
- Other relevant flood prevention and protection project or study.

**Project Grants and Loans (Check All that Apply – Hybrid Solutions will include items from both the “Nature-Based” and “Other” categories)**

**Nature-based solutions**

- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development, and where the flood mitigation benefits will be achieved as a part of the same project as the property acquisition.
- Wetland restoration.
- Floodplain restoration.
- Construction of swales and settling ponds.
- Living shorelines and vegetated buffers.
- Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia* Floodplain and Flooding Resilience layer or a similar data driven analytic tool, or the acquisition of developed land for future conservation.
- Dam removal.
- Stream bank restoration or stabilization.
- Restoration of floodplains to natural and beneficial function.

**Other Projects**

- Structural floodwalls, levees, berms, flood gates, structural conveyances.
- Storm water system upgrades.
- Medium and large-scale Low Impact Development (LID) in urban areas.

- Developing flood warning and response systems, which may include gauge installation, to notify residents of potential emergency flooding events.
- Dam restoration.
- Beneficial reuse of dredge materials for flood mitigation purposes
- Removal or relocation of structures from flood-prone areas where the land will not be returned to open space.
- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development, and where the flood mitigation benefits will not be achieved as a part of the same project as the property acquisition.
- Other project identified in a DCR-approved Resilience Plan.

**Location of Project or Activity (Include Maps):** 8800 Richmond Highway, Alexandria VA 22309

**NFIP Community Identification Number (CID#) :** 515525

**Is Project Located in an NFIP Participating Community?**  Yes  No

**Is Project Located in a Special Flood Hazard Area?**  Yes  No

**Flood Zone(s) (If Applicable):** FEMA Zone AE

**Flood Insurance Rate Map Number(s) (If Applicable):** 51059C0385E

**Total Cost of Project:** \$4,000,000

**Total Amount Requested** \$2,800,000

**Amount Requested as Grant** \$2,800,000

**Amount Requested as Project Loan (not including short-term loans for up-front costs)**  
N/A

**Amount Requested as Short-Term loan for Up-Front Costs (not to exceed 20% of amount requested as Grant)** N/A

**For projects, planning, capacity building, and studies in low-income geographic areas: Are you requesting that match be waived?**  Yes  No

**Additional Information for Loan Requests**

**Requested Loan Security:** N/A

(General Obligation, Lease, Revenue, Special Fund Revenue, and/or Moral obligation from other government entity)

**Desired loan term:** N/A

**Since the date of your latest financial statements, did the applicant issue any new debt?** N/A  
(If yes, provide details)

**Is there any pending or potential litigation by or against the applicant?** N/A

**Attach five years of current audited financial statements (FY18-22) or refer to website if posted**  
(Not necessary for existing VRA borrowers)

**Attach FY2024 adopted budget or refer to website**

**Attach current Capital Improvement Plan**

**Attach adopted Financial Policies**

**Attach a list of the ten largest employers in the Applicant's jurisdiction.**

**Attach a list of the ten largest taxpayers in the Applicant's jurisdiction**

Fairfax County: 8800 Richmond Highway Voluntary Land Acquisition  
 Community Flood Preparedness Fund &  
 Resilient Virginia Revolving Loan Fund

Detailed Budget Narrative

Period of Performance: Spring 2024 through Spring 2027  
 Submission Date: November 2023

								Grand Total State Funding Request	\$2,800,000
								Grand Total Local Share of Project	\$1,200,000
								Federal Funding (if applicable)	\$ -
								Project Grand Total	\$4,000,000
								Locality Cost Match	30%
Breakout By Cost Type	Personnel	Fringe	Travel	Equipment	Supplies	Contracts	Indirect Costs	Other Costs	Total
Federal Share (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,200,000	\$ -	\$ -	\$ 1,200,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,800,000.00	\$ -	\$ -	\$ 2,800,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000.00	\$ -	\$ -	\$ 4,000,000.00

## Appendix C: Checklist All Categories

(*Benefit-cost analysis must be included if the proposed Project is over \$2 million.*)

Virginia Department of Conservation and Recreation

Community Flood Preparedness Fund Grant Program

- 
- Detailed map of the project area(s) (Projects/Studies)
  - FIRMette of the project area(s) (Projects/Studies)
  - Historic flood damage data and/or images (Projects/Studies)
  - A link to or a copy of the current floodplain ordinance
  - Non-Fund financed maintenance and management plan for project extending a minimum of 10 years from project close
  - A link to or a copy of the current comprehensive plan
  - Social vulnerability index score(s) for the project area from VFRIS SVI Layer
  - If applicant is not a town, city, or county, letters of support from affected localities
  - Letter of support from impacted stakeholders
  - Budget Narrative
  - Supporting Documentation, including the Benefit-Cost Analysis tool/narrative (for projects over \$2 million)
  - Authorization to request funding from the Fund from governing body or chief executive of the local government

Signed pledge agreement from each contributing organization

Detailed budget and narrative for all costs

## Appendix D: Scoring Criteria

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Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

### SCORING CRITERIA PER CATEGORY

#### Projects

Eligible Projects, up to 30 points.

- Acquisition (30)
- Wetland/floodplain restoration, Construction of swales and settling ponds, Living shorelines and vegetated buffers, Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia*'s floodplain and flooding Resilience layer or a similar data driven analytic tool, Dam removal, Stream bank restoration or stabilization, Restoration of floodplains to natural and beneficial function. (25)
- Other nature-based approach (20)
- Hybrid approach resulting in nature-based solution (15)
- All other projects (10)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Community scale of benefits, up to 30 points.

- More than one census block (30)
- 50-100% of census block (25)
- 25-49% of census block (20)
- Less than 25% of census block (0)

Expected lifespan of project, up to 10 points.

- 10 -14 Years (3)
- 15 - 20 Years (5)
- Over 20 Years (10)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 10, no 0)

Proposed project implements a Chesapeake Bay TMDL BMP (yes 5, no 0)

### **Studies**

Revising floodplain ordinances to maintain compliance with the NFIP or to incorporate higher standards that may reduce the risk of flood damage, 30 points.

Creating tools or applications to identify, aggregate, or display information on flood risk or creating a crowd-sourced mapping platform that gathers data points about real-time flooding.

This could include a locally or regionally based web-based mapping product that allows local residents to better understand their flood risk, 25 points.

Conducting hydrologic and hydraulic studies of floodplains. Applicants who create new maps must apply for a Letter of Map Change through the Federal Emergency Management Agency (FEMA), 15 points.

Studies and Data Collection of Statewide and Regional Significance. Funding of studies of statewide and regional significance and proposals will be considered for the studies listed below, Up to 45 points.

- Updating precipitation data and IDF information (rain intensity, duration, frequency estimates) including such data at a sub-state or regional scale on a periodic basis. (45)
- Regional relative sea level rise projections for use in determining future impacts. (45)
- Vulnerability analysis either statewide or regionally to state transportation, water supply, water treatment, impounding structures, or other significant and vital infrastructure from flooding. (45)
- Flash flood studies and modeling in riverine regions of the state. (45)
- Statewide or regional stream gauge monitoring to include expansion of existing gauge networks. (45)
- New or updated delineations of areas of recurrent flooding, stormwater flooding, and storm surge vulnerability in coastal areas that include projections for future conditions based on sea level rise, more intense rainfall events, or other relevant flood risk factors. (45)
- Regional flood studies in riverine communities that may include watershed scale evaluation, updated estimates of rainfall intensity, or other information. (45)
- Regional hydrologic and hydraulic studies of floodplains. (45)
- Studies of potential land use strategies that could be implemented by a local government to reduce or mitigate damage from coastal or riverine flooding. (40)
- Other proposals that will significantly improve protection from flooding on a statewide or regional basis (35)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 10, no 0)

Proposed project implements a Chesapeake Bay TMDL BMP (yes 5, no 0)

### **Capacity Building and Planning**

Eligible Capacity Building and Planning Activities. Up to 100 points.

Development of a new resilience plan (95)

Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans (60)

Resource assessments, planning, strategies, and development (40)

Policy management and/or development (35)

Stakeholder engagement and strategies (35)

Goal planning, implementation, and evaluation (25)

Long term maintenance strategy (25)

Other proposals that will significantly improve protection from flooding on a statewide or regional basis approved by the Department (15)

Social Vulnerability Index Score, up to 10 points.

- Very High Social Vulnerability (More than 1.5) (10)
- High Social Vulnerability (1.0 to 1.5) (8)
- Moderate Social Vulnerability (0.0 to 1.0) (5)
- Low Social Vulnerability (-1.0 to 0.0) (0)
- Very Low Social Vulnerability (Less than -1.0) (0)

Community scale of benefits, up to 30 points.

- More than one census block (30)
- 50-100% of census block (25)
- 25-49% of census block (20)
- Less than 25% of census block (0)

Remedy for NFIP probation or suspension (yes 5, no 0)

Proposed project part of a low-income geographic area (yes 5, no 0)

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project Richmond Hwy VolAcq\_FINAL.pdf**



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

November 1, 2023

Ms. Wendy Howard Cooper  
Director, Dam Safety and Floodplain Management  
Department of Conservation and Recreation  
East Main Street, 24<sup>th</sup> Floor  
Richmond, Virginia 23219

Reference: Community Flood Preparedness Fund, CY 2023 Round 4 Grant Applications

Dear Ms. Howard Cooper:

This is a response to the Department of Conservation and Recreation's (DCR) recent announcement of the Virginia Community Flood Preparedness Fund (CFPF) grant.

We are providing CFPF applications that contain information and request funding assistance for the following four flood prevention and protection projects.

1. Broad Branch Court Stormwater Improvement Project
2. Little Pimmit Run Tributary at Woodland Terrace
3. Richmond Highway Voluntary Land Acquisition
4. Woodglen Lake Toe Drain Repair

If one or more of these grants are awarded, Fairfax County (County) will provide the necessary match for each selected project as required by your department, subject to Fairfax County Board of Supervisors approval. It is understood that the County's total match amount for all four County applications being considered during the supplemental review may be as much as \$7,926,300.

If you have any questions or need additional assistance, please contact Joni Calmbacher, Division Director, Department of Public Works and Environmental Service, Stormwater Planning Division at 703-324-5500.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bryan J. Hill".  
Bryan J. Hill  
County Executive

Attachment: Community Flood Preparedness Fund (CFPF): Applications

Bryan J. Hill

Department of Conservation and Recreation, Virginia Community Flood Preparedness Fund

Page 2 of 2

cc:    Rachel Flynn, Deputy County Executive  
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)  
Eleanor Ku Coddng, Deputy Director, DPWES, Stormwater and Wastewater Divisions  
Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

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## Benefit-Cost Calculator

V.6.0 (Build 20231011.1703 | Release Notes)

Attachment 13

## Benefit-Cost Analysis

Project Name: 8800 Richmond Highway



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Acquisition @ 38.7195380; -77.1283109		Riverine Flood	\$ 4,246,415	\$ 4,000,000	1.06	\$ 9,403,581	\$ 4,000,000	2.35
<b>TOTAL (SELECTED)</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>
<b>TOTAL</b>				<b>\$ 4,246,415</b>	<b>\$ 4,000,000</b>	<b>1.06</b>	<b>\$ 9,403,581</b>	<b>\$ 4,000,000</b>	<b>2.35</b>

## Property Configuration

<b>Property Title:</b>	Acquisition @ 38.7195380; -77.1283109
<b>Property Location:</b>	22309, Fairfax, Virginia
<b>Property Coordinates:</b>	38.7195380398629, -77.12831090070694
<b>Hazard Type:</b>	Riverine Flood
<b>Mitigation Action Type:</b>	Acquisition
<b>Property Type:</b>	Non-Residential Building
<b>Analysis Method Type:</b>	Modeled Damages

## Cost Estimation

Acquisition @ 38.7195380; -77.1283109

<b>Project Useful Life (years):</b>	100
<b>Project Cost:</b>	\$4,000,000
<b>Number of Maintenance Years:</b>	100 Use Default:Yes
<b>Annual Maintenance Cost:</b>	\$0

## Hazard Probabilities Parameters - Flood

Acquisition @ 38.7195380; -77.1283109

**Lowest Floor Elevation of the Property (ft):** 0

**Streambed Elevation at the Property Location (ft):** 0

**Use Default Recurrence Intervals:** Use Defau **No**

## Discharge

Acquisition @ 38.7195380; -77.1283109

### BEFORE MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

### AFTER MITIGATION

Recurrence Interval (years)	Surface Elevation (ft)	Discharge (cfs)
10	0	0
50	0	0
100	17.5	0
500	0	0

## Estimated Annual Damages by Category

Acquisition @ 38.7195380; -77.1283109

## Before Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## After Mitigation

Flood Depth (ft)	Recurrence Interval (yr)	Building (\$)	Contents (\$)	Displacement (\$)	Loss of Function (\$)
Total (\$)		\$ 0	\$ 0	\$ 0	\$ 0

## Building Information

Acquisition @ 38.7195380; -77.1283109

**Non-Residential Occupancy Type:** Select Non-Residential Building Use**Building Type:****Building Is Engineered:** No**NFIP:** No

## Standard Benefits - Building

Acquisition @ 38.7195380; -77.1283109

**Depth Damage Curve:** Use Default:Yes**Building Size (sq.ft):** 0**Building Replacement Value (BRV) (\$/sq.ft):** \$100 Use Default:Yes**Demolition Threshold (%):** 50.00% Use Default:Yes**Expected Annual Losses due to Building Damages before Mitigation:** \$0**Expected Annual Losses due to Building Damages after Mitigation:** \$0**Expected Annual Benefits - Building:** \$0

## Depth Damage Curve - Building

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION				AFTER MITIGATION			
	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)	Percent (%)	Damage Value (\$)	NFIP (\$)	ICC Fees (\$)

## Standard Benefits - Contents

Acquisition @ 38.7195380; -77.1283109

<b>Contents Value in Dollars:</b>	\$0	Use Default:Yes
<b>Expected Annual Losses due to Content Damages before Mitigation:</b>	\$0	
<b>Expected Annual Losses due to Content Damages after Mitigation:</b>	\$0	
<b>Expected Annual Benefits - Content:</b>	\$0	

## Depth Damage Curve - Contents

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Percent (%)	Damage Value (\$)	Percent (%)	Damage Value (\$)

## Standard Benefits - Displacement

Acquisition @ 38.7195380; -77.1283109

<b>Monthly Displacement Cost (\$/sq.ft/month):</b>	0	Use Default:Yes
<b>One-Time Displacement Cost (\$/sq.ft):</b>	0	Use Default:Yes
<b>Expected Annual Losses due to Displacement Damages before mitigation:</b>	\$0	
<b>Expected Annual Losses due to Displacement Damages after Mitigation:</b>	\$0	
<b>Expected Annual Losses - Displacement:</b>	\$0	

## Depth Damage Curve - Displacement

Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Loss of Function/Loss of Income

Acquisition @ 38.7195380; -77.1283109

<b>Annual Operating Budget:</b>	\$0
<b>Loss of Function/Loss of Income Per Day:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income before mitigation:</b>	\$0
<b>Expected Annual Losses due to Loss of Function/Loss of Income after mitigation:</b>	\$0
<b>Expected Annual Benefits - Expected Annual Benefits - Loss of Function/Loss of Income:</b>	\$0

Depth Damage Curve - Loss of Function/Loss of Income  
Acquisition @ 38.7195380; -77.1283109

Flood Depth (ft)	BEFORE MITIGATION		AFTER MITIGATION	
	Days	Damage Value (\$)	Days	Damage Value (\$)

## Standard Benefits - Street Maintenance Costs

Acquisition @ 38.7195380; -77.1283109

Total Annual Street Maintenance Budget (\$): \$0

Number of Street Miles Maintained: 0

Street Miles that will not require future maintenance: 0

Expected Annual Street Maintenance Benefits: \$0

## Standard Benefits - Volunteer Costs

Acquisition @ 38.7195380; -77.1283109

Number of Volunteers (volunteers/event): 0

Number of Days of Lodging: 0

Expected Annual Volunteer Benefits: \$0

## Standard Benefits - Ecosystem Services

Acquisition @ 38.7195380; -77.1283109

Total Project Area (acres): 8

Percentage of Urban Green Open Space: 0.00%

Percentage of Rural Green Open Space: 0.00%

Percentage of Riparian: 100.00%

Percentage of Coastal Wetlands: 0.00%

Percentage of Inland Wetlands: 0.00%

Percentage of Forests: 0.00%

Percentage of Coral Reefs: 0.00%

Percentage of Shellfish Reefs: 0.00%

Percentage of Beaches and Dunes: 0.00%

Expected Annual Ecosystem Services Benefits: \$297,592

**Benefits-Costs Summary**

Acquisition @ 38.7195380; -77.1283109

**Total Standard Mitigation Benefits:** \$4,246,415**Total Social Benefits:** \$0**Total Mitigation Project Benefits:** \$4,246,415**Total Mitigation Project Cost:** \$4,000,000**Benefit Cost Ratio - Standard:** 1.06**Benefit Cost Ratio - Standard + Social:** 1.06