

# 1964 - Broad Branch Court Stormwater Improvement Project

## 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 6:43 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 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:** Joni Calmbacher

**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\*:** No

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

### **Project Description\*:**

The project, Broad Branch Court STW Improvements Stormwater Improvement, provides flood control solutions. It focuses on improving the drainage system to mitigate localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual (PFM) to capture and convey the 100-year 24-hour storm within the minor conveyance system using innovative and functional design to improve public safety and sound cost effective solution.

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\*:** 2002, 2011, 2012

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

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

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

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

## 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\*:** All hybrid approaches whose end result is a nature-based solution

**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)

<b>Socially Vulnerable*:</b>	Very Low Social Vulnerability (Less than -1.0)
Is the proposed project part of an effort to join or remedy the community's probation or suspension from the NFIP?	
<b>NFIP*:</b>	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.	
<b>Low-Income Geographic Area*:</b>	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?	
<b>Reduction of Nutrient and Sediment Pollution*:</b>	No
Does this project provide ?community scale? benefits?	
<b>Community Scale Benefits*:</b>	Less than 25% of census block
Expected Lifespan of Project	
<b>Expected Lifespan of Project*:</b>	Over 20 Years
<b>Comments:</b>	

## 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\\_Broad\\_Branch\\_FINAL.pdf](#)

### **Comments:**

See Scope of Work

### **Budget Narrative**

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

### **Comments:**

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\*:**

Round 4 A.5 CEX Match Letter.pdf

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

**Benefit-Cost Analysis\*:**

[See Grant Application Report.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**

[See Grant Application Report.pdf](#)

**Loss Properties\*:**

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 hybrid solutions - Fund 60%/Match 40%

**Total Project Amount\*:**

\$450,000.00

**REQUIRED Match Percentage Amount:**

\$180,000.00

## BUDGET TOTALS

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

Match Percentage:	40.00%	Verify that your match percentage matches your required match percentage amount above.
Total Requested Fund Amount:	\$270,000.00	
Total Match Amount:	\$180,000.00	
<b>TOTAL:</b>	<b>\$450,000.00</b>	

### 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
No Data for Table			

### Contracts

Description	Requested Fund Amount	Match Amount	Match Source
Design Contract	\$270,000.00	\$180,000.00	Emergency and Flood Response CIP
	\$270,000.00	\$180,000.00	

### 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
No Data for Table			

## 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
No Data for Table	

#### ***Other Direct Costs***

Description	Requested Fund Amount
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)	Broad Branch 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-2251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-2251</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/fairfax-county-comprehensive-plan">https://www.fairfaxcounty.gov/planning-development/fairfax-county-comprehensive-plan</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 mitigation project and compares those benefits to its cost-effectiveness.</i>	
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
Approval Letter	<a href="#">515525 Fairfax County 220110_Resilience Plan APPROVAL.pdf</a>	pdf	347 KB	11/08/2023 01:08 PM
Approved Resilience Plan	<a href="#">515525_Fairfax_County_CFPF_Resilience_Plan_2021.10.25_reduced.pdf</a>	pdf	864 KB	11/08/2023 01:08 PM



**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*

*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.

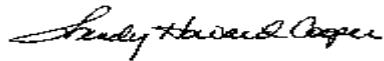
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater 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

**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).

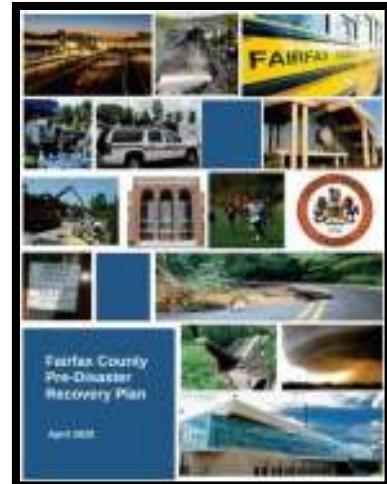


Figure 2: Pre-Disaster Recovery Plan Cover

[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			

# National Flood Hazard Layer FIRMette



ATTACHMENT 7

## Legend

SEE HS REPORT FOR DETAILED LEGEND AND INDEX FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE); Zone A, V, A1

With BFE or Depth 1% AF: 40, 48, 56, 64

Regulatory Floodways

### SPECIAL FLOOD HAZARD AREAS

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

### OTHER AREAS

Area of Undetermined Flood Hazard Zone U

GENERAL STRUCTURES - - - - - 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

— — — — Profile Baseline

— Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped

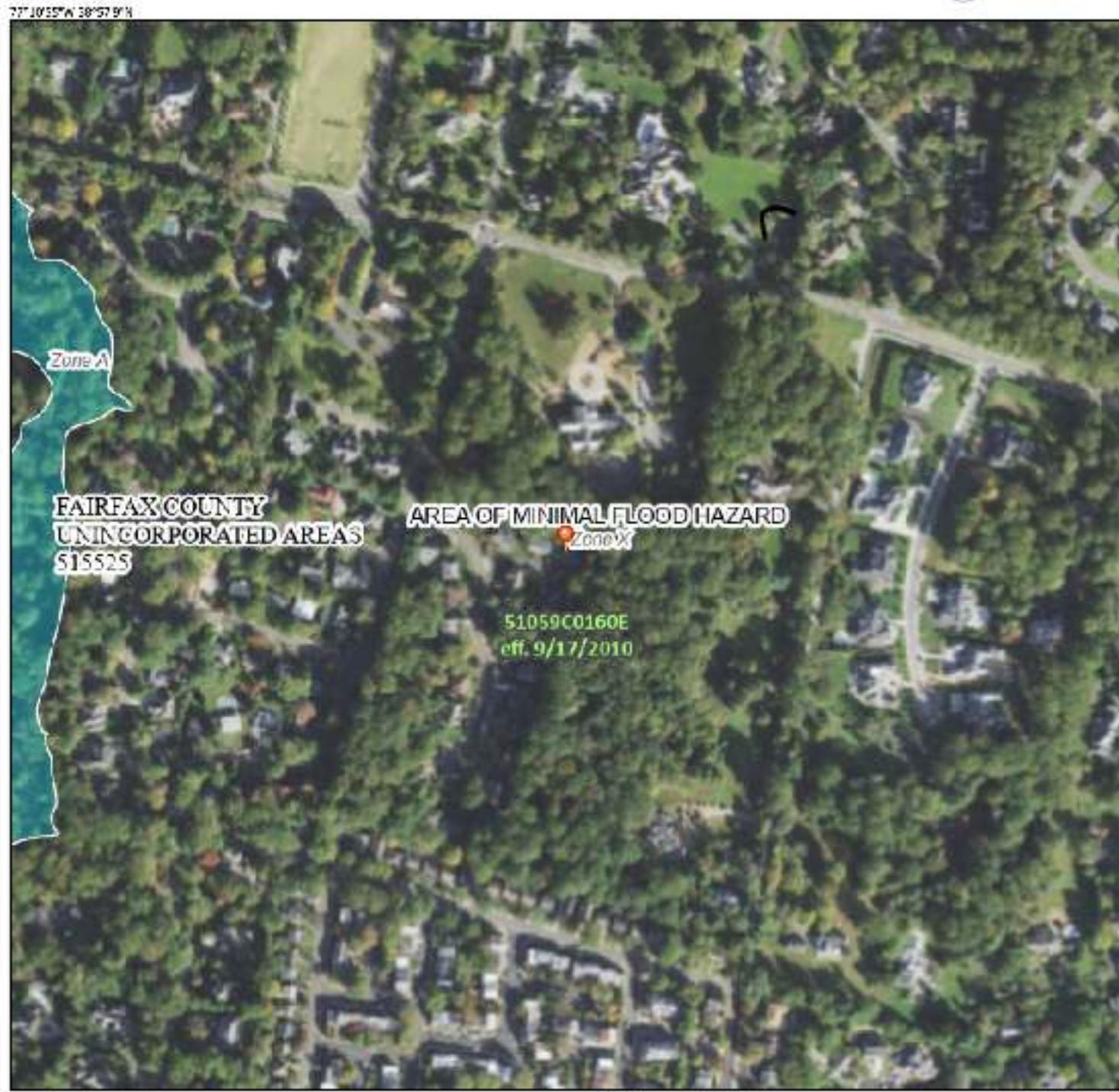


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 10/24/2023 at 8:06 AM 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 unmodeled areas cannot be used for regulatory purposes.



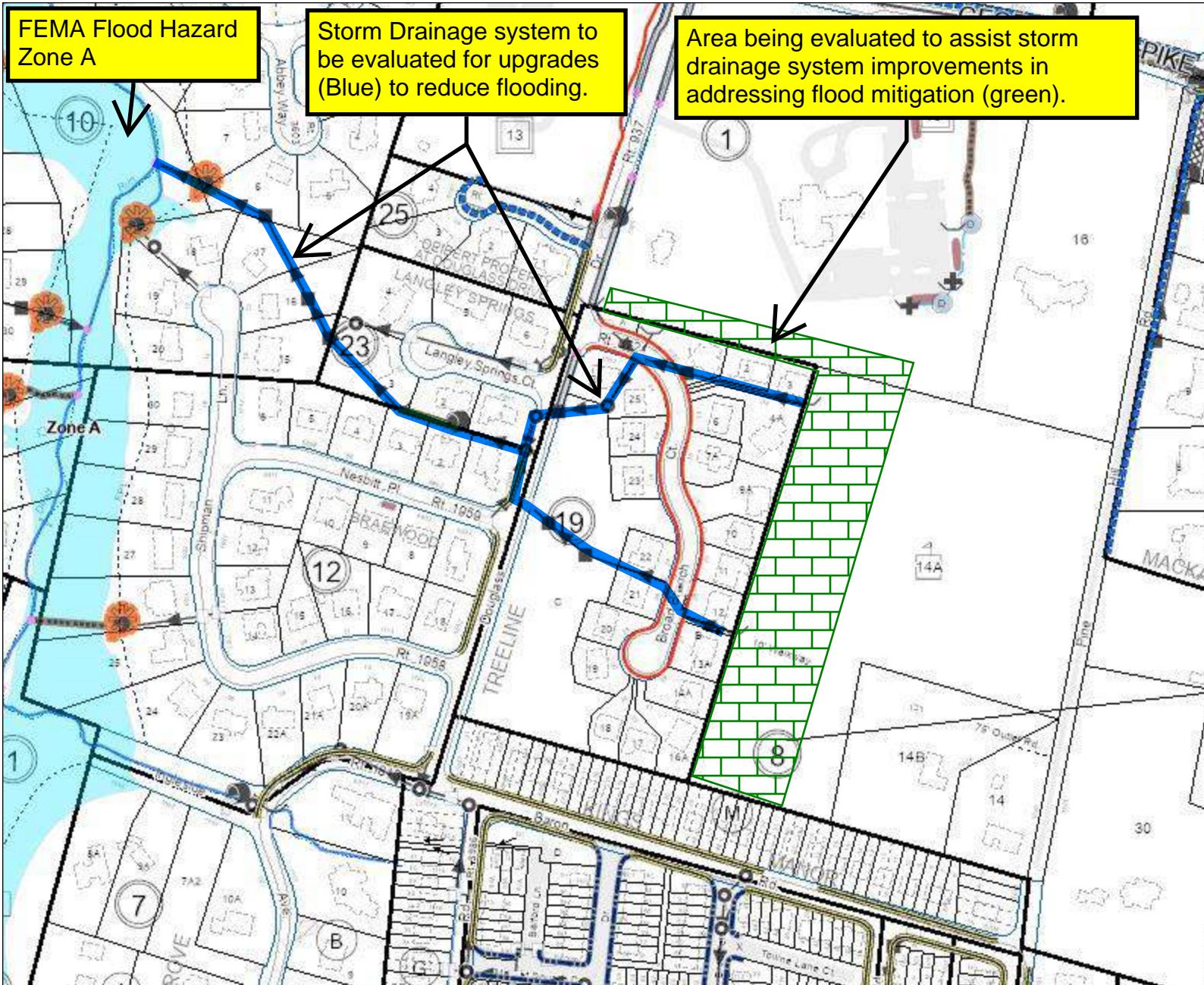
Feet

1:6,000

77°10'35"W 38°57'9"N



# Broad Branch Court STW Improvements Stormwater Improvement



0

0.14

0.3 Miles

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

Major Roadways	
Interstates; Toll Roads	
Parkways; Major Arterials	
Walkway Maintenance Respo	
Dept of Public Works & Environme	
Fairfax County Facilities Manageme	
Fairfax County Public Schools	
Northern Virginia Regional Park Au	
Private	
Reston Association	
Unknown	
Virginia Department of Transportati	
Stormwater Structures	
Bilco Door	
Bioretention	
Control Structure	
Curb Inlet	
Dry Pond	
Farm Pond	
Grate Inlet	
Inlet	
Junction Box	
MS4 Outfall	
MS4 Piped Discharge	

Notes:

Map produced: 10/24/2023

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**



# Virginia Flood Risk Information System (VFRIS)

ArcGIS WebMap

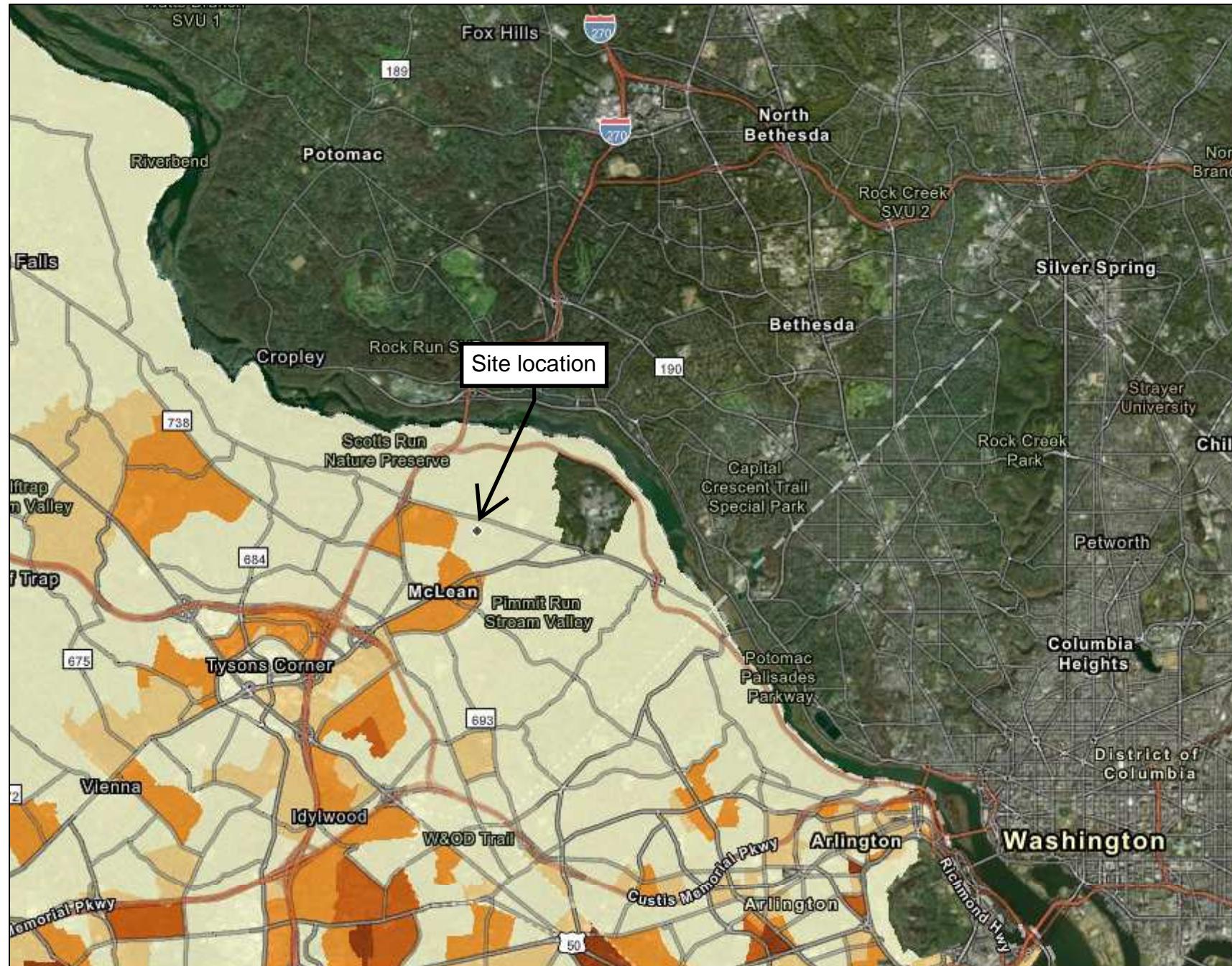
ATTACHMENT 8

Date: 10/24/2023

## Legend

Virginia Social  
Vulnerability  
Block Groups  
2020

- Very Low Social Vulnerability
- Low Social Vulnerability
- Moderate Social Vulnerability
- High Social Vulnerability
- Very High 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 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 Coddling, 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\_Broad\_Branch\_FINAL.pdf**

# FAIRFAX COUNTY

## Broad Branch Court STW Improvements Project

Virginia Community Flood Preparedness Fund

2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-2



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## Attachments

Attachment 1. Adopted Fairfax County Fiscal Year 2024 budget

Attachment 2. County Resilience Plan

Attachment 3. Project encumbrances

Attachment 4. Total project cost estimate

Attachment 5. Request for funding authorization

Attachment 6. Detailed map of the project area

Attachment 7. FIRMette of the project area

Attachment 8. Social vulnerability map

## 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 mitigate flooding at the Broad Branch CT neighborhood in McLean within the Dranesville Magisterial District. The project, Broad Branch Court STW Improvements Stormwater Improvement, provides flood control solutions. It focuses on improving the drainage system to mitigate localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual (PFM) to capture and convey the 100-year 24-hour storm within the minor conveyance system using innovative and functional design to improve public safety and sound cost effective solution.

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. In order 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 addresses community concerns and supports resilience goals by addressing the watershed drainage problem within the project area.

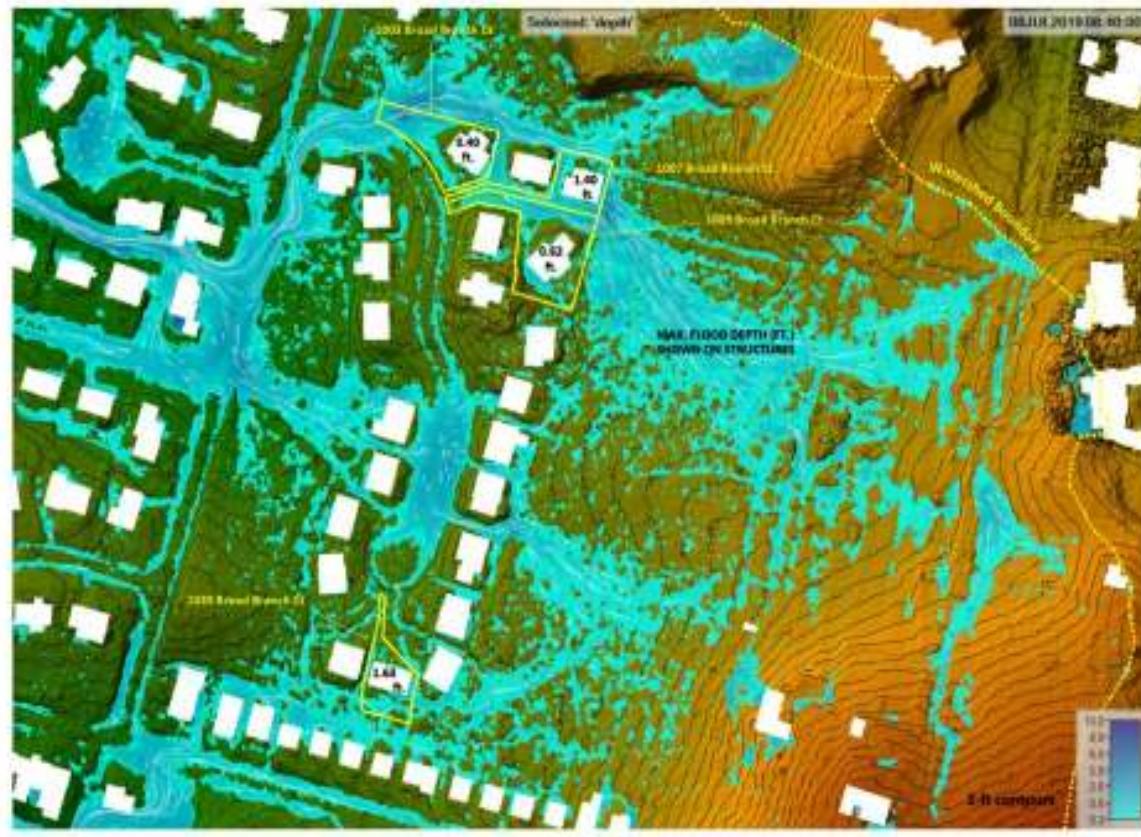
## Scope of Work Narrative

### 1. Project Information

Broad Branch Ct. Neighborhood located in McLean within the Dranesville Magisterial District in Fairfax County, where it suffers from drainage issues. On July 8, 2019, an exceptionally severe rainstorm passed through the Dranesville District of Fairfax County, two property owners reported structural flooding. Since then, County engineers have been working with citizens to gather data and make initial assessments about the severity and potential causes of flooding at the affected properties. These neighborhoods were built prior to many stormwater management requirements and contain little infrastructure to adequately convey runoff from numerous residential lots and roadways.

During the rainstorm event on July 8, 2019, a significant amount of overland flow was directed to the existing headwall and 30” pipe adjacent to 1007 Broad Branch Ct. The pipe capacity was overwhelmed, causing overland flow down the shared driveway and along the back side of these homes. Significant flow was also observed around another property at the end of Broad Branch Ct. (Map 1) where the flows exceeded the capacities of the existing yard inlet.

*Map 1: 100-year Limits*



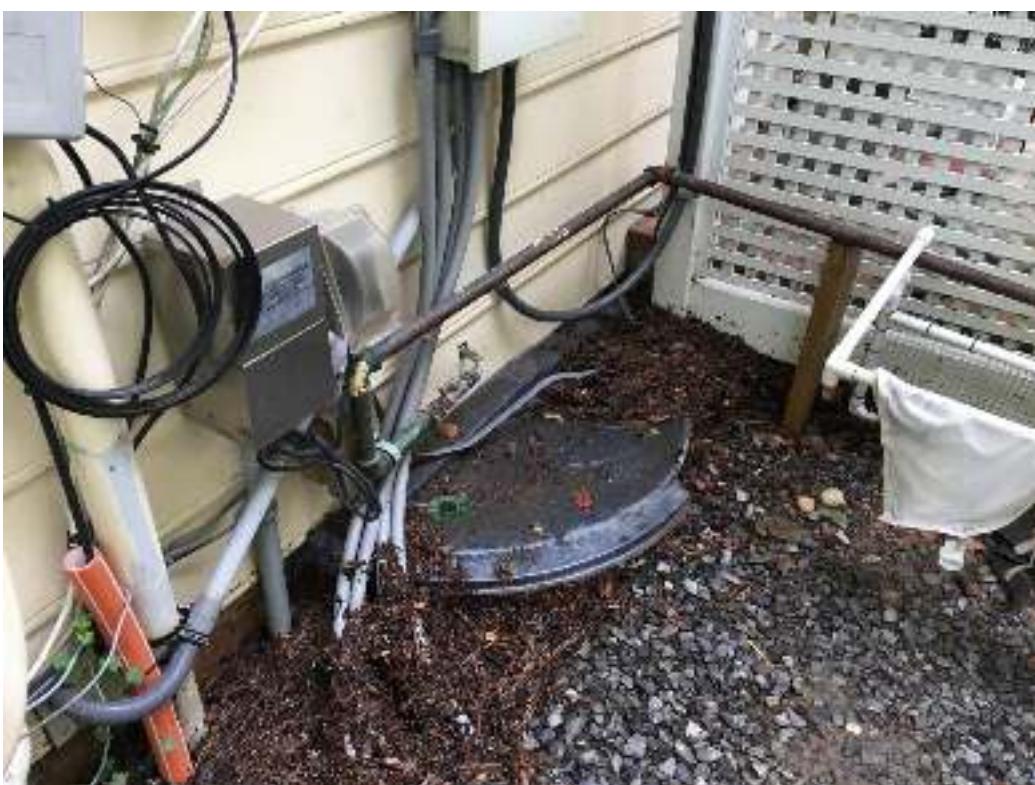
#### *Population*

Fairfax County has a population of about 1.17 million. The proposed project is in the Dranesville Magisterial District in McLean. The project impacts approximately 10 single family homes on Broad Branch Court.

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

The project area has a history of drainage issues with runoff coming off of the slope on the property to the east of Broad Branch Ct. Figure 1 below shows post storm images from the July 8, 2019, event. Five properties have reported overland flow or structural flooding from the July 8, 2019, event.

*Figure 1: Post Flood Pictures*



### *Local Government Cost Share*

The design of the project is identified in the County's FY24 stormwater capital improvement plan (CIP). It is currently anticipated that the County's cost-share would be provided through Emergency and Flood Response under Fund 40100 Stormwater Services in the Fairfax County Fiscal Year 2024 budget (see Attachment 1 for the County's stormwater CIP plan and County budget document).

### *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 (figure 3). 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 floodplain immediately downstream of the project area is classified as SFHA Zone-A.

### *Project Priority*

#### *Flood Damage*

This project was prioritized due to numerous structural and yard flooding complaints. Residences in the project area were constructed in the late 1970s prior to floodplain and stormwater management regulations. Properties at Broad Branch Ct. reported basement flooding. This flooding is due to the large amount of overland flow that drains from County property east of Broad Branch Ct. The runoff overwhelms the existing infrastructure resulting in localized flooding.

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

The project was prioritized as a result of several neighborhood resident reports of drainage issues. Fairfax County participated in the development of Northern Virginia Hazard Mitigation Plan, and this plan identified flooding as one of the highest-ranked hazards for the county. Figure 2 shows hazard rankings for Fairfax County from the current 2022 Northern Virginia Hazard Mitigation Plan.

Figure 2: Table from 2022 Northern Virginia Hazard Mitigation Plan

Table 12: Hazard Risk Ranking Summary: Natural Hazards

Hazard	Total Probability Score	Total Consequence Score	Overall Risk Score	Hazard Ranking
Winter Storm	3.7	3.5	7.2	High
Flood/Flash Flood	1.7	4.2	5.9	High
High Wind/Severe Storm	2.7	3.2	5.8	High
Dam Failure	1.0	4.5	5.5	Medium
Tornado	1.3	4.2	5.5	Medium
Extreme Temperatures	2.7	2.5	5.2	Medium
Drought	2.0	3.2	5.2	Medium
Earthquake	1.7	3.2	4.9	Medium
Wildfire	1.0	3.0	4.0	Low
Karst/Sinkhole/Land Subsidence	1.0	2.5	3.5	Low
Landslide	1.0	2.5	3.5	Low

Figure 3: NFIP and CRS participation



## 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. Fairfax County's adopted Fiscal Year 2024 Stormwater Services budget includes \$7.0 million for emergency and flood response projects (Figure 4), 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.

*Figure 4: 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
CAPIVDAP Grant Contribution to NVSWCD (2G25-011-C0C)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,843,450.33	5,000,929.65	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	5,009,029.28	12,180,745.62	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,386.22	7,885,633.78	4,179,875	4,179,875
<b>Emergency and Flood Response Projects (SD-000032)</b>	<b>43,861,661</b>	<b>1,263,804.43</b>	<b>20,389,681.87</b>	<b>7,000,000</b>	<b>7,000,000</b>
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,040.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,202.02	2,480,742.22	0	0
Lake Accotink Dredging (SD-00041)	5,000,000	516,946.24	3,608,858.14	0	0
NVSWCD Contribution (2G25-007-000)	7,138,388	564,811.00	609,346.00	509,346	509,346
Occonquan Monitoring Contribution (2G25-008-000)	1,940,079	177,789.00	189,437.00	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 Profers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,586.07	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)	280,310,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,876	600,087.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	338,498	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$65,797,438.76</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 Vulnerability Index Map (Attachment 8), the project is not in a socially vulnerable area.

### *Alternatives*

The project will propose a hybrid solution.

### **3. Goals and Objectives**

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

- Improve the drainage system and reduce localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual. The design will evaluate the cumulative increases in runoff from infill development based on existing and future buildout conditions.
- Address public safety concerns.
- Use innovative, sustainable, and functional designs.
- Develop a sound, cost effective solution that can be collaboratively implemented and maintained.

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

The main goal of this project is to design a more resilient stormwater management conveyance system in the Broad Branch Ct. neighborhood. The existing conveyance system in the project area, which serves a drainage area of approximately 54 acres (Figure 1). The County will evaluate the nearby county owned property east of Broad Branch Ct. for potential supplementary grading and other options to assist the storm drainage system improvements and further control stormwater runoff during larger storms.

Typically, closed stormwater conveyance systems are designed to carry the 10-year flow. Due to repeated flooding the County's desire to integrate resiliency into the design, the closed conveyance system may potentially be designed to accommodate up to the 100-year flow capacity within the system (Map 2).

### **5. Work Plan**

<b>Major Tasks</b>	<b>Responsible Party</b>	<b>Timeframe</b>	<b>Partners</b>
Negotiate Design Task Order	Consultant and County	3 months from grant award notice	
Complete Final Design	Consultant and County	2 years from Notice to Proceed with the Design	Community and Property Owners

Map 2: Detailed Map of Infrastructure



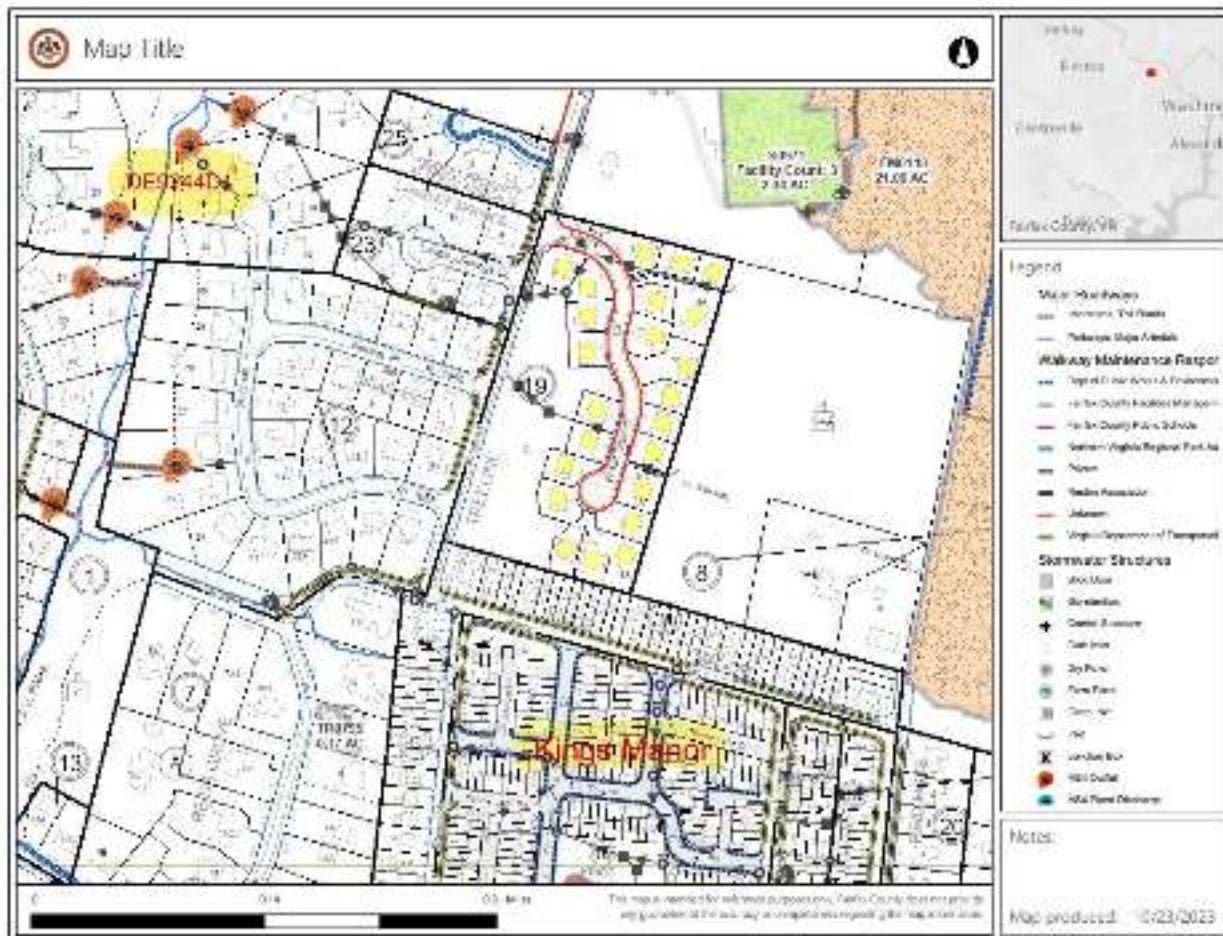
## 6. Relationship to Other Projects

Fairfax County's Middle Potomac Watershed Management Plan identified the area immediately downstream of this project for stream restoration. The Broad Branch Ct. neighborhood is adjacent to the Kings Manor Town homes stormwater improvement project, another area with known drainage issues (Map 3). The Broad Branch Ct. neighborhood is upstream of a stream restoration project (identified as DE9244D1) and could provide additional controls for stormwater runoff water that will enter the channel identified under DE9244D1.

The Dead Run Watershed Management Plan can be found in the following link for the Middle Potomac Watershed Management Plan:

<https://www.fairfaxcounty.gov/publicworks/stormwater/middle-potomac-watersheds>

### *Map 3. Relationship to other projects*



## 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 restoration projects. Since this project will be constructed by the county, it will be maintained by MSMD.

## *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 2)*

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 Emergency and Flood Response Projects (see Attachment 1).*

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 reduce the flooding in the neighborhood. The project design objective is to provide resiliency in the closed system to handle the 100-year storm event. The County will further evaluate the public property to the east of Brand Branch Ct. to further enhance the storm drainage system improvements with green stormwater infrastructure and detention.*

## SUPPORTING DOCUMENTATION

Scope of Work Narrative	
Documents	Link or Attachment
Detailed map of the project area	Attachment 6
FIRMette of the project area	Attachment 7
Historic flood damage data/image	Figure 1 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/fairfax-county-comprehensive-plan">https://www.fairfaxcounty.gov/planning-development/fairfax-county-comprehensive-plan</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)	2002, 2011, 2012

## Budget Narrative

### 1. Estimated Total Project Design Services Cost

The estimated total cost for conceptual design services for Broad Branch Ct. Stormwater Improvement project is \$450,000.

#### Unencumbered: \$450,000

Design Services: \$400,000

Land Acquisition: \$30,000

Utilities & Permits: \$20,000

See Attachment 3 for the project encumbrances and Attachment 4 for the total project estimate.

### 2. Grant Requested

The County requests \$270,000 from the Fund (50% of the Design Services Cost). This is the total amount of any grant assistance sought from the Fund. 100% of this grant will be applied to the Design services of the project.

### 3. Available Funds

Fairfax County has not encumbered any funds for the design task order, land acquisition and utilities designation. Additional funds for the cost-share are available in Emergency and Flood Response under Fund 40100 Stormwater Services in the adopted Fairfax County Fiscal Year 2024 budget (Attachment 1).

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.

## Conclusion

Fairfax County has many older neighborhoods which were built prior to current floodplain regulations. Due to the global influence of climate change, rainfall intensity has changed over time resulting in the flooding of more and more neighborhoods and roadways. The implementation of this project, where limited conveyance exists, will provide the greatest relief to the neighborhood. The project not only provides a resilient conveyance system, but also improves water quality for the drainage shed. Fairfax County is therefore requesting funding support for the implementation of the project to reduce flooding threats to the neighborhood.

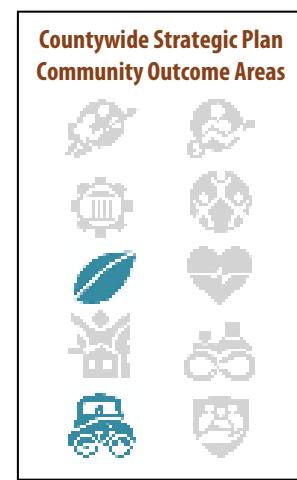
# Fund 40100: Stormwater Services

## 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.

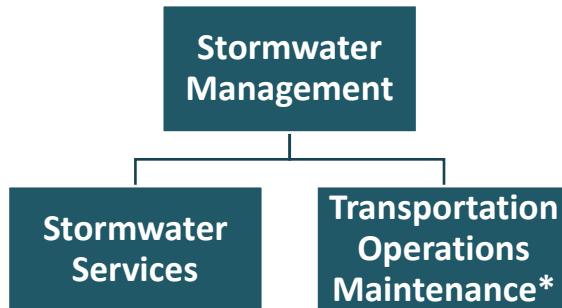
### *Stream and Water Quality Improvements*

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>

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.

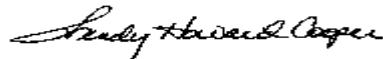
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater 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

**From:** [REDACTED]  
**Sent:** Tuesday, October 24, 2023 10:03 AM  
**To:** [REDACTED]  
**Subject:** RE: Broad Branch Court STW Improvements Project, SD-00032-128

[REDACTED]

**There are no encumbrances associated with the project currently unless there is one pending process.** Jenifer would know more about that. Please let us know if there's anything else you need.

[REDACTED]

DPWES, Stormwater Management  
12000 Government Center Parkway Suite 368.2  
Fairfax, VA 22035

"I hope that all of us or none of us are judged by the actions of our weakest moments,  
but rather by the strength we show when and if we're ever given a second chance."

---

**From:** [REDACTED]  
**Sent:** Tuesday, October 24, 2023 9:51 AM  
**To:** [REDACTED]  
**Subject:** Broad Branch Court STW Improvements Project, SD-00032-128

[REDACTED]

I'm searching for any encumbrances associated with the subject project. I searched Focus and nothing showed up. I just wanted to confirm that nothing has been encumbered for this project.

DEPARTMENT OF PUBLIC WORKS

Date: 10/24/2023  
 Project Name: Broad Branch Court STW Improvements  
 Project Number: SD-000032  
 Sub PN: 128  
 Fund: 400-C40101

Type of Estimate (Check One)  
 Order of Mag/Inception = 25% ±  
 Preliminary/schematic = 15% ±  
 Design-plans & Land acq. = 10% ±  
 Const. after bid = 5%  
 Mid Const. 50% complete = 2%  
 Project complete

ITEM Hours	Cost Estimate		
	Prior	FY24	Future

**Land Acquisition:**

Number of parcels:	0		\$0	\$ - \$ - \$ -
Land Costs:	0			
Damages:	0			
Appraisals: No.	0	6	@ \$3,000	\$ - \$ - \$ 18,000
Title Exams: No.	0	6	@ \$1,300	\$ - \$ - \$ 7,800
Staff Hours:	0	60	@ \$52	\$ - \$ - \$ 3,120
Outside Counsel			@ \$0	\$ - \$ - \$ -
				\$ - \$ 28,920 \$ 30,000

**Stormwater Planning Design Engr.:**

Design Engr.	0	0	@ \$51	\$ - \$ - \$ -
Drafting			@ \$41	\$ - \$ - \$ -
Engr. Support	0	0	@ \$41	\$ - \$ - \$ -

**County Inspections, Plan Review and Permitting Fees:**

<b><u>County Engineering and Construction Management</u></b>				
Proj. Engr.	0	0	@ \$65	\$ - \$ 0.00 \$ 0.00
Plans: (per set)			@ \$50	\$ - \$ - \$ -
Advertisement:				\$ - \$ - \$ -
Specifications:				\$ - \$ - \$ -
Location Survey:			@ \$125	\$ - \$ - \$ -
<b><u>Construction</u></b>				
Survey S/O			@ \$125	\$ - \$ - \$ -
As-Built Survey			@ \$130	\$ - \$ - \$ -
Proj. Engr. <sup>1</sup>	0		@ \$65	\$ - \$ - \$ -
Proj. Insp. <sup>2</sup>	0		@ \$53	\$ - \$ - \$ -
				\$ 0.00 \$ 0.00 \$ 0.00

**Design Consultant** Firm Name: Wetland Studies

Topo		\$ - \$ - \$ -
Design		\$ - \$ 400,000 \$ -
Geotechnical/Contamination/Soil Testing		\$ - \$ - \$ -
<b><u>Construction</u></b>		\$ - \$ - \$ -
Stakeout		\$ - \$ - \$ -
Geotechnical		\$ - \$ - \$ -
Oversight ( <i>including as-built</i> )		\$ - \$ - \$ -
As-builts		\$ - \$ - \$ -
Total Cost Outside Engineering		\$ 400,000 \$ - \$ 400,000

**Outside Construction (i.e. by the contractor)**

Stakeout		\$ - \$ - \$ -
Construction <sup>3</sup>		\$ - \$ - \$ -
As-builts		\$ - \$ - \$ -
Total Cost Outside Construction		\$ - \$ - \$ - \$ -

**Utilities**

Designation		\$ - \$ 10,000 \$ -
Test Pits		\$ - \$ - \$ 10,000
Relocations	Overhead Electric (Assumed)	\$ - \$ - \$ -
Relocations	Overhead Gas (Assumed)	\$ - \$ - \$ -
Relocations	Water (Assumed)	\$ - \$ - \$ -
Total Cost Utilities		\$ - \$ 10,000 \$ 10,000 \$ 20,000

**Permit Fees (Other)**

VDOT		\$ - \$ 120
Other		\$ - \$ - \$ 2,711
Total Cost Permits		\$ - \$ - \$ 2,831
PROJECT TOTALS:		\$ - \$ 399,920 \$ 57,351 \$ 452,831

1. Estimate based on 2 hour daily involvement for 52 week duration + 80 hours

2. Estimate based on 3 hour daily involvement for 52 week duration + 80 hours

3. WSSI Engineer's concept estimate

Order of Mag/Inception = 25% ±

TOTAL PROJECT ESTIMATE:

\$ 450,000



# 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

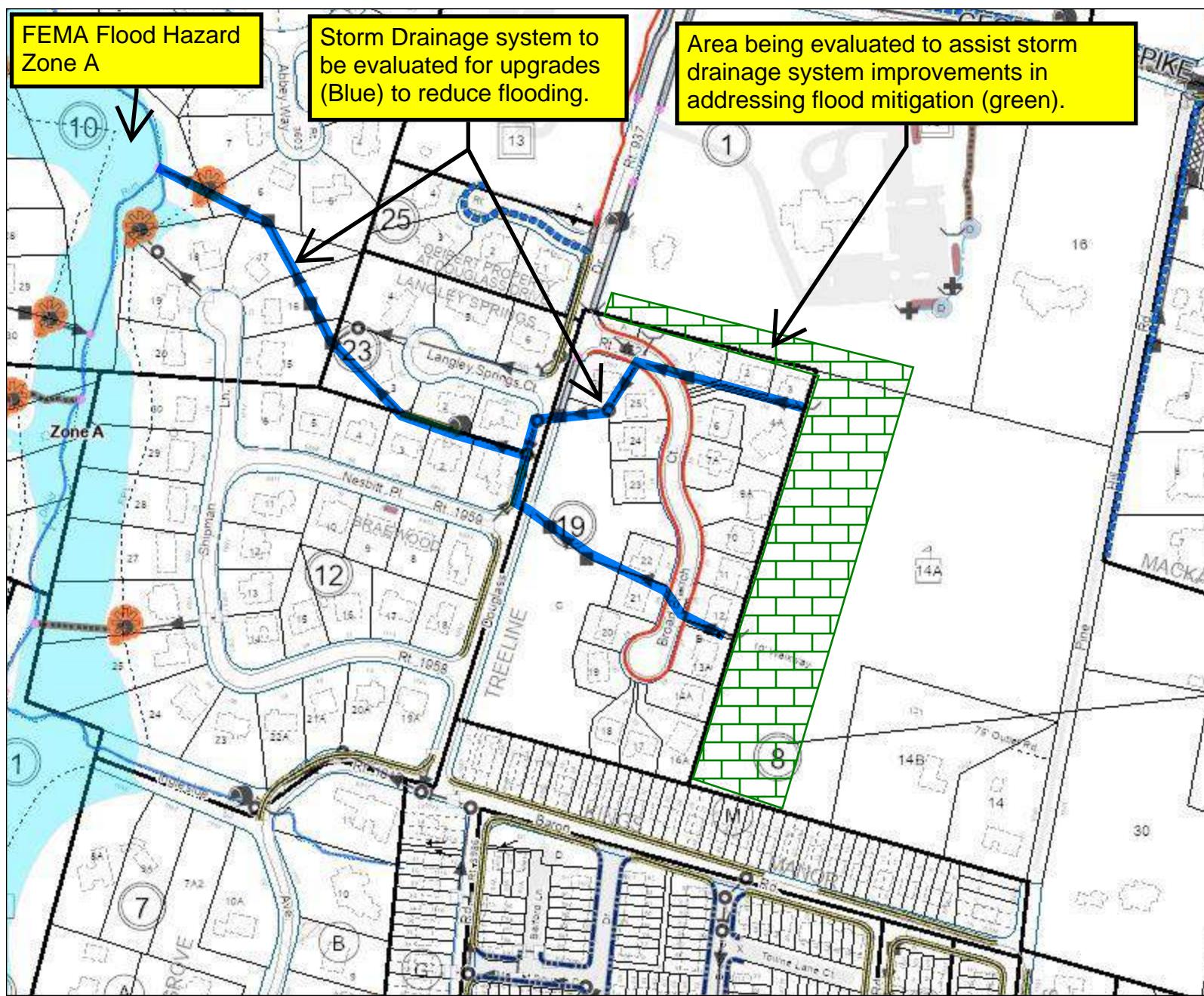


# Broad Branch Court STW Improvements Stormwater Improvement

## FEMA Flood Hazard Zone A

Storm Drainage system to be evaluated for upgrades (Blue) to reduce flooding.

Area being evaluated to assist storm drainage system improvements in addressing flood mitigation (green).



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

Major Roadways

- Interstates; Toll Roads
  - Parkways; Major Arterials

Walkway Maintenance Respor

- Dept of Public Works & Environment
  - Fairfax County Facilities Management
  - Fairfax County Public Schools
  - Northern Virginia Regional Park Authority
  - Private
  - Reston Association
  - Unknown

## Stormwater Structures

-  Bilco Door
  -  Bioretention
  -  Control Structure
  -  Curb Inlet
  -  Dry Pond
  -  Farm Pond
  -  Grate Inlet
  -  Inlet
  -  Junction Box
  -  MS4 Outfall
  -  MS4 Piped Discharge

Notes:

Map produced: 10/24/2023

# National Flood Hazard Layer FIRMette



ATTACHMENT 7

## Legend

SEE HS REPORT FOR DETAILED LEGEND AND INDEX FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE); Zone A, V, A1

With BFE or Depth 1% AF: 40, 48, 56, 64

Regulatory Floodways

### SPECIAL FLOOD HAZARD AREAS

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 U

### OTHER AREAS

GENERAL - - - Channel, Culvert, or Storm Sewer  
STRUCTURES : : : : : 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

OTHER FEATURES - - - - Profile Baseline

— Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped

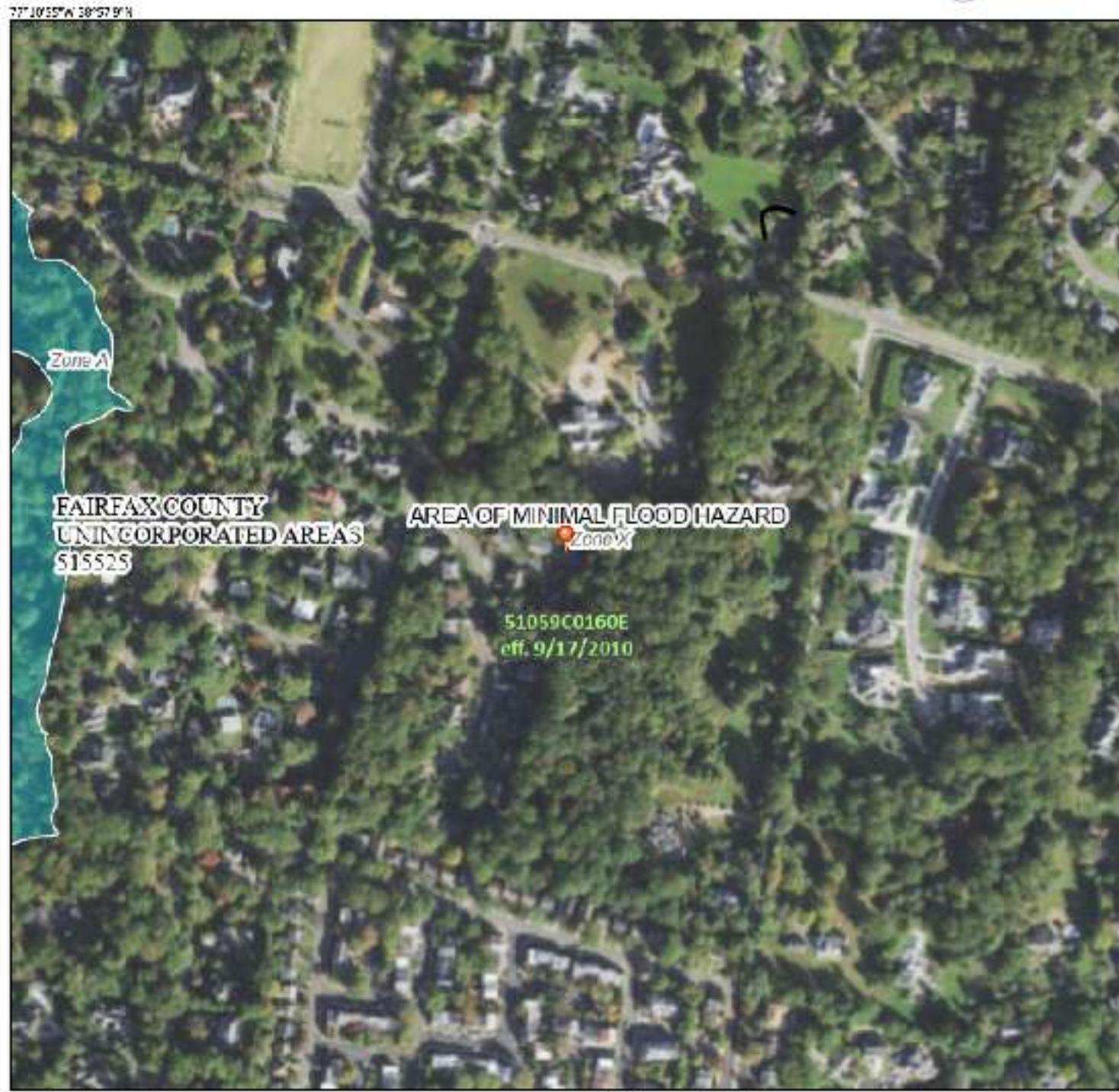


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 NFH web services provided by FEMA. This map was exported on 10/24/2023 at 8:06 AM and does not reflect changes or amendments subsequent to this date and time. The NFH 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 unmodeled areas cannot be used for regulatory purposes.



Feet

1:6,000

77°10'35"W 38°57'9"N



# Virginia Flood Risk Information System (VFRIS)

ArcGIS WebMap

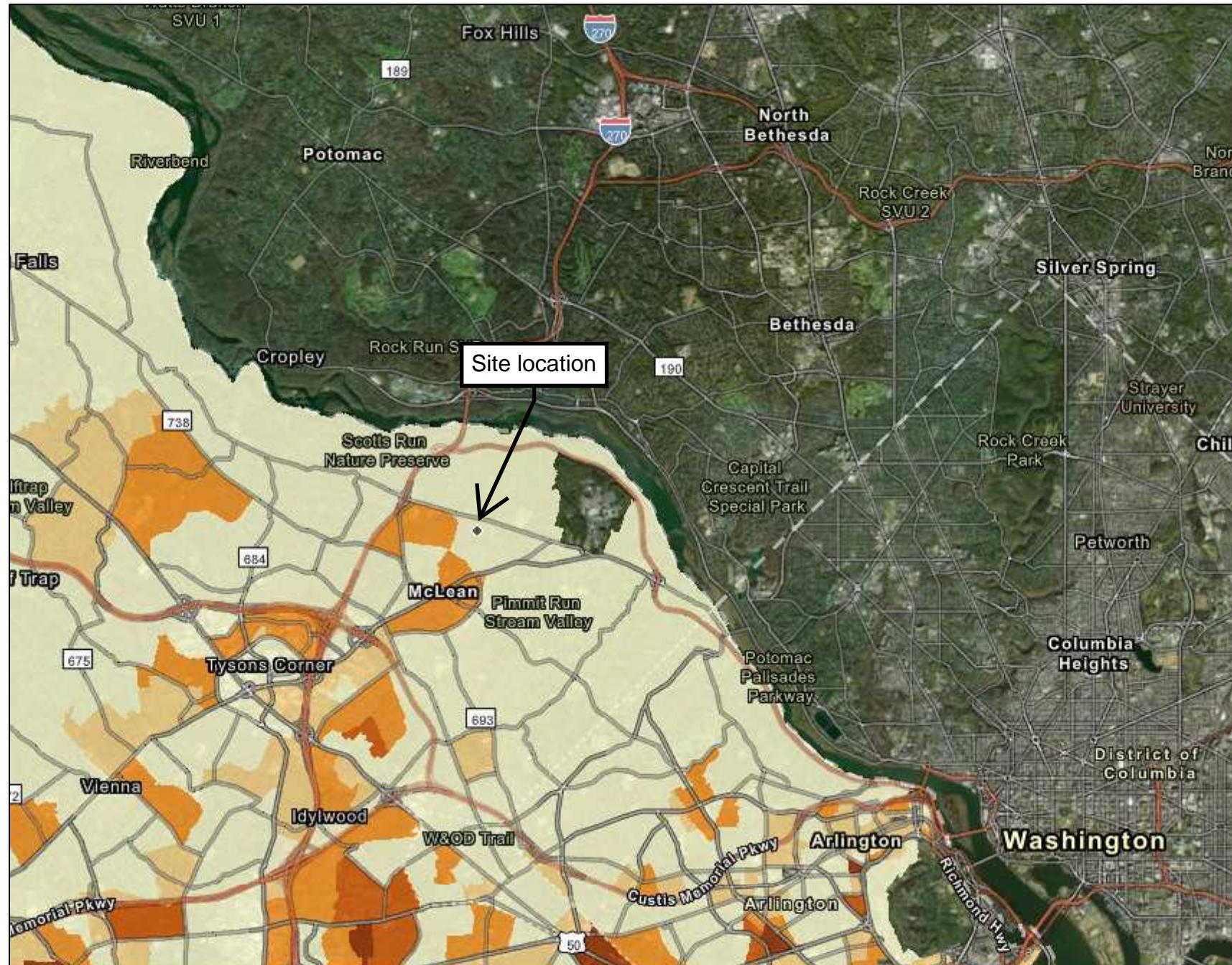
ATTACHMENT 8

Date: 10/24/2023

## Legend

Virginia Social  
Vulnerability  
Block Groups  
2020

- Very Low Social Vulnerability
- Low Social Vulnerability
- Moderate Social Vulnerability
- High Social Vulnerability
- Very High 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 1 2 mi



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

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

Name of Local Government:

Category Being Applied for (check one):

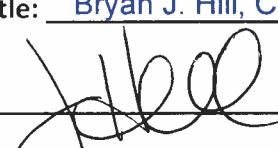
Capacity Building/Planning

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.

Fairfax County Dead Run Watershed - Broad  
Location of Project or Activity (Include Maps): Branch Court

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): Project outfalls directly into FEMA Zone A

Flood Insurance Rate Map Number(s) (If Applicable): 51059C0160E

Total Cost of Project: \$450,000

Total Amount Requested \$270,000

Amount Requested as Grant \$270,000

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: Broad Branch Stormwater Improvement Project

Community Flood Preparedness Fund &

Resilient Virginia Revolving Loan Fund

Detailed Budget Narrative

Period of Performance: Spring 2024 through Spring 2027

Submission Date: November 2023

								<b>Grand Total State Funding Request</b>	\$ 270,000.00
								<b>Grand Total Local Share of Project</b>	\$ 180,000.00
								<b>Federal Funding (if applicable)</b>	\$ -
								<b>Project Grand Total</b>	\$ 450,000.00
								<b>Locality Cost Match</b>	40%
<b>Breakout By Cost Type</b>	<b>Personnel</b>	<b>Fringe</b>	<b>Travel</b>	<b>Equipment</b>	<b>Supplies</b>	<b>Contracts</b>	<b>Indirect Costs</b>	<b>Other Costs</b>	<b>Total</b>
Federal Share (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,000.00	\$ -	\$ -	\$ 180,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000.00	\$ -	\$ -	\$ 270,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>

## **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.

# FAIRFAX COUNTY

## Broad Branch Court STW Improvements Project

Virginia Community Flood Preparedness Fund

2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-2



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## Attachments

Attachment 1. Adopted Fairfax County Fiscal Year 2024 budget

Attachment 2. County Resilience Plan

Attachment 3. Project encumbrances

Attachment 4. Total project cost estimate

Attachment 5. Request for funding authorization

Attachment 6. Detailed map of the project area

Attachment 7. FIRMette of the project area

Attachment 8. Social vulnerability map

## 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 mitigate flooding at the Broad Branch CT neighborhood in McLean within the Dranesville Magisterial District. The project, Broad Branch Court STW Improvements Stormwater Improvement, provides flood control solutions. It focuses on improving the drainage system to mitigate localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual (PFM) to capture and convey the 100-year 24-hour storm within the minor conveyance system using innovative and functional design to improve public safety and sound cost effective solution.

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. In order 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 addresses community concerns and supports resilience goals by addressing the watershed drainage problem within the project area.

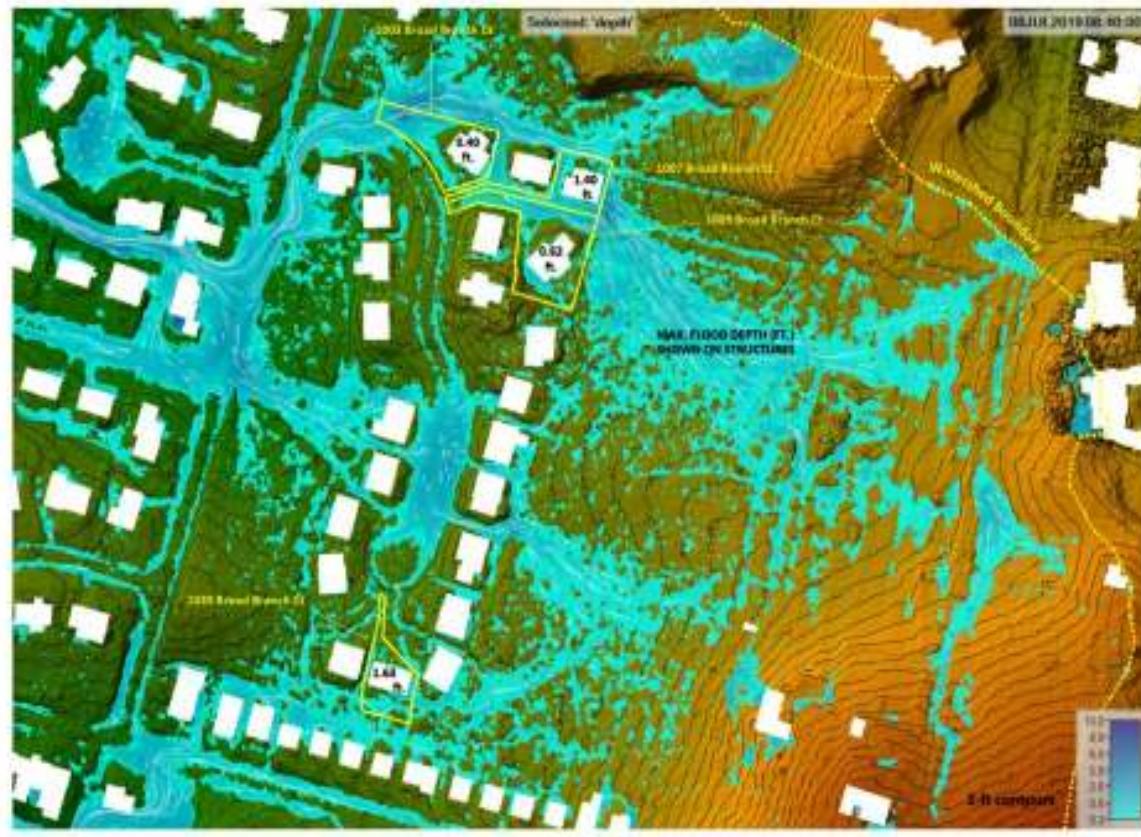
## Scope of Work Narrative

### 1. Project Information

Broad Branch Ct. Neighborhood located in McLean within the Dranesville Magisterial District in Fairfax County, where it suffers from drainage issues. On July 8, 2019, an exceptionally severe rainstorm passed through the Dranesville District of Fairfax County, two property owners reported structural flooding. Since then, County engineers have been working with citizens to gather data and make initial assessments about the severity and potential causes of flooding at the affected properties. These neighborhoods were built prior to many stormwater management requirements and contain little infrastructure to adequately convey runoff from numerous residential lots and roadways.

During the rainstorm event on July 8, 2019, a significant amount of overland flow was directed to the existing headwall and 30” pipe adjacent to 1007 Broad Branch Ct. The pipe capacity was overwhelmed, causing overland flow down the shared driveway and along the back side of these homes. Significant flow was also observed around another property at the end of Broad Branch Ct. (Map 1) where the flows exceeded the capacities of the existing yard inlet.

*Map 1: 100-year Limits*



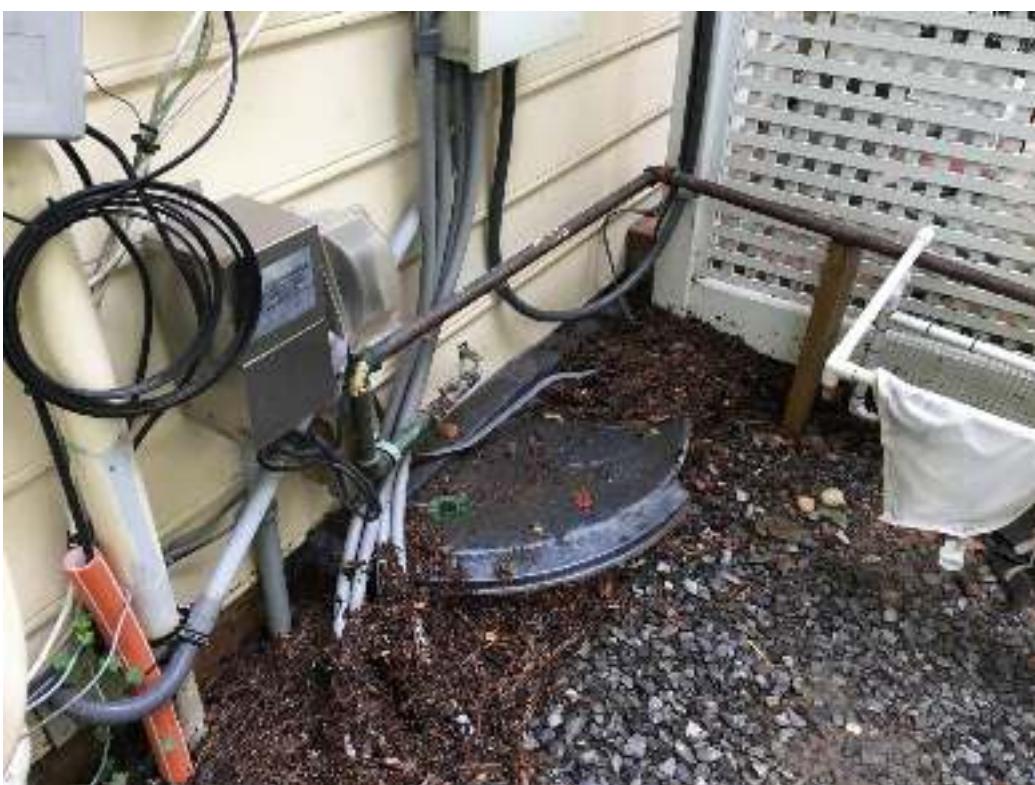
#### *Population*

Fairfax County has a population of about 1.17 million. The proposed project is in the Dranesville Magisterial District in McLean. The project impacts approximately 10 single family homes on Broad Branch Court.

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

The project area has a history of drainage issues with runoff coming off of the slope on the property to the east of Broad Branch Ct. Figure 1 below shows post storm images from the July 8, 2019, event. Five properties have reported overland flow or structural flooding from the July 8, 2019, event.

*Figure 1: Post Flood Pictures*



### *Local Government Cost Share*

The design of the project is identified in the County's FY24 stormwater capital improvement plan (CIP). It is currently anticipated that the County's cost-share would be provided through Emergency and Flood Response under Fund 40100 Stormwater Services in the Fairfax County Fiscal Year 2024 budget (see Attachment 1 for the County's stormwater CIP plan and County budget document).

### *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 (figure 3). 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 floodplain immediately downstream of the project area is classified as SFHA Zone-A.

### *Project Priority*

#### *Flood Damage*

This project was prioritized due to numerous structural and yard flooding complaints. Residences in the project area were constructed in the late 1970s prior to floodplain and stormwater management regulations. Properties at Broad Branch Ct. reported basement flooding. This flooding is due to the large amount of overland flow that drains from County property east of Broad Branch Ct. The runoff overwhelms the existing infrastructure resulting in localized flooding.

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

The project was prioritized as a result of several neighborhood resident reports of drainage issues. Fairfax County participated in the development of Northern Virginia Hazard Mitigation Plan, and this plan identified flooding as one of the highest-ranked hazards for the county. Figure 2 shows hazard rankings for Fairfax County from the current 2022 Northern Virginia Hazard Mitigation Plan.

Figure 2: Table from 2022 Northern Virginia Hazard Mitigation Plan

Table 12: Hazard Risk Ranking Summary: Natural Hazards

Hazard	Total Probability Score	Total Consequence Score	Overall Risk Score	Hazard Ranking
Winter Storm	3.7	3.5	7.2	High
Flood/Flash Flood	1.7	4.2	5.9	High
High Wind/Severe Storm	2.7	3.2	5.8	High
Dam Failure	1.0	4.5	5.5	Medium
Tornado	1.3	4.2	5.5	Medium
Extreme Temperatures	2.7	2.5	5.2	Medium
Drought	2.0	3.2	5.2	Medium
Earthquake	1.7	3.2	4.9	Medium
Wildfire	1.0	3.0	4.0	Low
Karst/Sinkhole/Land Subsidence	1.0	2.5	3.5	Low
Landslide	1.0	2.5	3.5	Low

Figure 3: NFIP and CRS participation



## 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. Fairfax County's adopted Fiscal Year 2024 Stormwater Services budget includes \$7.0 million for emergency and flood response projects (Figure 4), 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.

*Figure 4: 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
CAPIVDAP Grant Contribution to NVSNCD (2G25-011-C0C)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,843,450.33	5,000,929.65	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	5,009,029.28	12,180,745.62	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,386.22	7,885,633.78	4,179,875	4,179,875
<b>Emergency and Flood Response Projects (SD-000032)</b>	<b>43,861,661</b>	<b>1,263,804.43</b>	<b>20,389,681.87</b>	<b>7,000,000</b>	<b>7,000,000</b>
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,040.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,202.02	2,480,742.22	0	0
Lake Accotink Dredging (SD-00041)	5,000,000	516,946.24	3,608,858.14	0	0
NVSNCD Contributory (2G25-007-000)	7,138,388	564,811.00	609,346.00	509,346	509,346
Occonquan Monitoring Contributory (2G25-008-000)	1,940,079	177,789.00	189,437.00	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 Profilers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,586.07	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)	280,310,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,876	600,087.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	338,498	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$65,797,438.76</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 Vulnerability Index Map (Attachment 8), the project is not in a socially vulnerable area.

### *Alternatives*

The project will propose a hybrid solution.

### **3. Goals and Objectives**

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

- Improve the drainage system and reduce localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual. The design will evaluate the cumulative increases in runoff from infill development based on existing and future buildout conditions.
- Address public safety concerns.
- Use innovative, sustainable, and functional designs.
- Develop a sound, cost effective solution that can be collaboratively implemented and maintained.

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

The main goal of this project is to design a more resilient stormwater management conveyance system in the Broad Branch Ct. neighborhood. The existing conveyance system in the project area, which serves a drainage area of approximately 54 acres (Figure 1). The County will evaluate the nearby county owned property east of Broad Branch Ct. for potential supplementary grading and other options to assist the storm drainage system improvements and further control stormwater runoff during larger storms.

Typically, closed stormwater conveyance systems are designed to carry the 10-year flow. Due to repeated flooding the County's desire to integrate resiliency into the design, the closed conveyance system may potentially be designed to accommodate up to the 100-year flow capacity within the system (Map 2).

### **5. Work Plan**

<b>Major Tasks</b>	<b>Responsible Party</b>	<b>Timeframe</b>	<b>Partners</b>
Negotiate Design Task Order	Consultant and County	3 months from grant award notice	
Complete Final Design	Consultant and County	2 years from Notice to Proceed with the Design	Community and Property Owners

Map 2: Detailed Map of Infrastructure



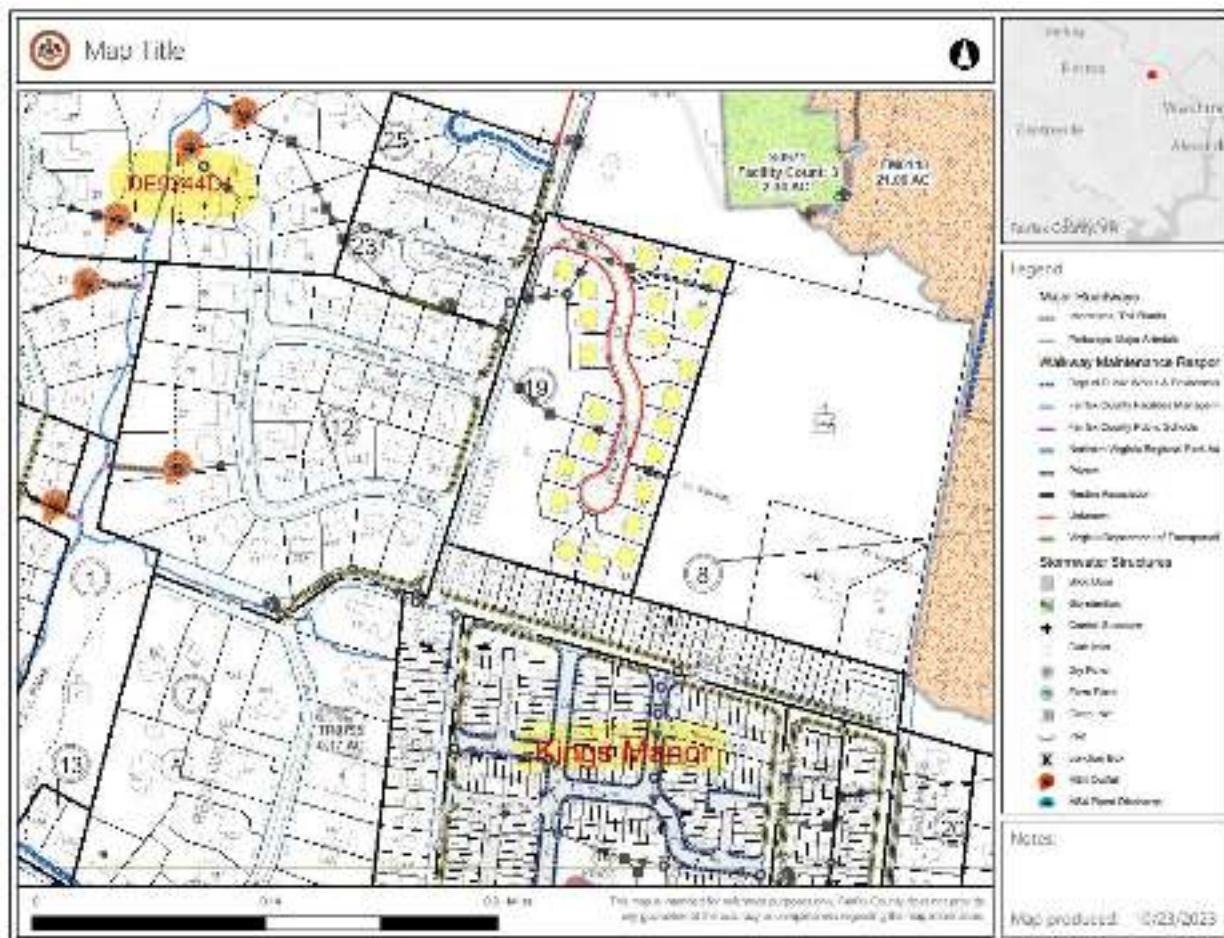
## 6. Relationship to Other Projects

Fairfax County's Middle Potomac Watershed Management Plan identified the area immediately downstream of this project for stream restoration. The Broad Branch Ct. neighborhood is adjacent to the Kings Manor Town homes stormwater improvement project, another area with known drainage issues (Map 3). The Broad Branch Ct. neighborhood is upstream of a stream restoration project (identified as DE9244D1) and could provide additional controls for stormwater runoff water that will enter the channel identified under DE9244D1.

The Dead Run Watershed Management Plan can be found in the following link for the Middle Potomac Watershed Management Plan:

<https://www.fairfaxcounty.gov/publicworks/stormwater/middle-potomac-watersheds>

Map 3. Relationship to other projects



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 Emergency and Flood Response Projects (see Attachment 1).*

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 reduce the flooding in the neighborhood. The project design objective is to provide resiliency in the closed system to handle the 100-year storm event. The County will further evaluate the public property to the east of Brand Branch Ct. to further enhance the storm drainage system improvements with green stormwater infrastructure and detention.*

## SUPPORTING DOCUMENTATION

Scope of Work Narrative	
Documents	Link or Attachment
Detailed map of the project area	Attachment 6
FIRMette of the project area	Attachment 7
Historic flood damage data/image	Figure 1 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/fairfax-county-comprehensive-plan">https://www.fairfaxcounty.gov/planning-development/fairfax-county-comprehensive-plan</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)	2002, 2011, 2012

## Budget Narrative

### 1. Estimated Total Project Design Services Cost

The estimated total cost for conceptual design services for Broad Branch Ct. Stormwater Improvement project is \$450,000.

#### Unencumbered: \$450,000

Design Services: \$400,000

Land Acquisition: \$30,000

Utilities & Permits: \$20,000

See Attachment 3 for the project encumbrances and Attachment 4 for the total project estimate.

### 2. Grant Requested

The County requests \$270,000 from the Fund (50% of the Design Services Cost). This is the total amount of any grant assistance sought from the Fund. 100% of this grant will be applied to the Design services of the project.

### 3. Available Funds

Fairfax County has not encumbered any funds for the design task order, land acquisition and utilities designation. Additional funds for the cost-share are available in Emergency and Flood Response under Fund 40100 Stormwater Services in the adopted Fairfax County Fiscal Year 2024 budget (Attachment 1).

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.

## Conclusion

Fairfax County has many older neighborhoods which were built prior to current floodplain regulations. Due to the global influence of climate change, rainfall intensity has changed over time resulting in the flooding of more and more neighborhoods and roadways. The implementation of this project, where limited conveyance exists, will provide the greatest relief to the neighborhood. The project not only provides a resilient conveyance system, but also improves water quality for the drainage shed. Fairfax County is therefore requesting funding support for the implementation of the project to reduce flooding threats to the neighborhood.

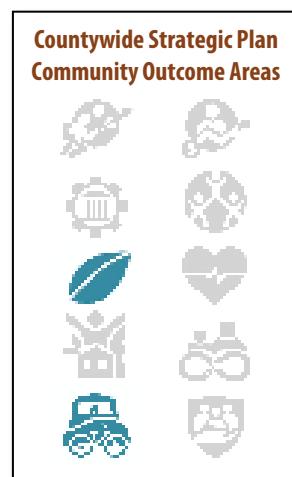
# Fund 40100: Stormwater Services

## 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.

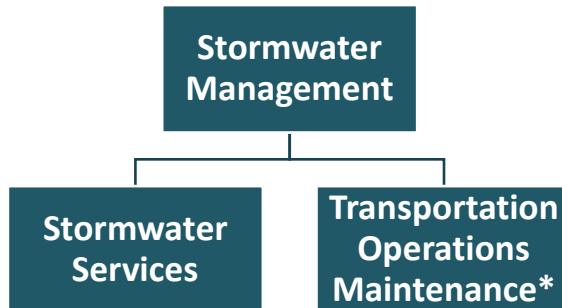
### *Stream and Water Quality Improvements*

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>

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.

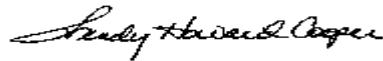
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater 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

**From:** [REDACTED]  
**Sent:** Tuesday, October 24, 2023 10:03 AM  
**To:** [REDACTED]  
**Subject:** RE: Broad Branch Court STW Improvements Project, SD-00032-128

[REDACTED]

**There are no encumbrances associated with the project currently unless there is one pending process.** Jenifer would know more about that. Please let us know if there's anything else you need.

[REDACTED]

DPWES, Stormwater Management  
12000 Government Center Parkway Suite 368.2  
Fairfax, VA 22035

"I hope that all of us or none of us are judged by the actions of our weakest moments,  
but rather by the strength we show when and if we're ever given a second chance."

---

**From:** [REDACTED]  
**Sent:** Tuesday, October 24, 2023 9:51 AM  
**To:** [REDACTED]  
**Subject:** Broad Branch Court STW Improvements Project, SD-00032-128

[REDACTED]

I'm searching for any encumbrances associated with the subject project. I searched Focus and nothing showed up. I just wanted to confirm that nothing has been encumbered for this project.

DEPARTMENT OF PUBLIC WORKS

Date: 10/24/2023  
 Project Name: Broad Branch Court STW Improvements  
 Project Number: SD-000032  
 Sub PN: 128  
 Fund: 400-C40101

Type of Estimate (Check One)  
 Order of Mag/Inception = 25% ±  
 Preliminary/schematic = 15% ±  
 Design-plans & Land acq. = 10% ±  
 Const. after bid = 5%  
 Mid Const. 50% complete = 2%  
 Project complete

ITEM Hours	Cost Estimate		
	Prior	FY24	Future

**Land Acquisition:**

Number of parcels:	0		\$0	\$ - \$ - \$ -
Land Costs:	0			
Damages:	0			
Appraisals: No.	0	6	@ \$3,000	\$ - \$ - \$ 18,000
Title Exams: No.	0	6	@ \$1,300	\$ - \$ - \$ 7,800
Staff Hours:	0	60	@ \$52	\$ - \$ - \$ 3,120
Outside Counsel			@ \$0	\$ - \$ - \$ -
				\$ - \$ 28,920 \$ 30,000

**Stormwater Planning Design Engr.:**

Design Engr.	0	0	@ \$51	\$ - \$ - \$ -
Drafting			@ \$41	\$ - \$ - \$ -
Engr. Support	0	0	@ \$41	\$ - \$ - \$ -

**County Inspections, Plan Review and Permitting Fees:**

<b><u>County Engineering and Construction Management</u></b>				
Proj. Engr.	0	0	@ \$65	\$ - \$ 0.00 \$ 0.00
Plans: (per set)			@ \$50	\$ - \$ - \$ -
Advertisement:				\$ - \$ - \$ -
Specifications:				\$ - \$ - \$ -
Location Survey:			@ \$125	\$ - \$ - \$ -
<b><u>Construction</u></b>				
Survey S/O			@ \$125	\$ - \$ - \$ -
As-Built Survey			@ \$130	\$ - \$ - \$ -
Proj. Engr. <sup>1</sup>	0		@ \$65	\$ - \$ - \$ -
Proj. Insp. <sup>2</sup>	0		@ \$53	\$ - \$ - \$ -
				\$ 0.00 \$ 0.00 \$ 0.00

**Design Consultant** Firm Name: Wetland Studies

Topo		\$ - \$ - \$ -
Design		\$ - \$ 400,000 \$ -
Geotechnical/Contamination/Soil Testing		\$ - \$ - \$ -
<b><u>Construction</u></b>		\$ - \$ - \$ -
Stakeout		\$ - \$ - \$ -
Geotechnical		\$ - \$ - \$ -
Oversight ( <i>including as-built</i> )		\$ - \$ - \$ -
As-builts		\$ - \$ - \$ -
Total Cost Outside Engineering		\$ 400,000 \$ - \$ 400,000

**Outside Construction (i.e. by the contractor)**

Stakeout		\$ - \$ - \$ -
Construction <sup>3</sup>		\$ - \$ - \$ -
As-builts		\$ - \$ - \$ -
Total Cost Outside Construction		\$ - \$ - \$ - \$ -

**Utilities**

Designation		\$ - \$ 10,000 \$ -
Test Pits		\$ - \$ - \$ 10,000
Relocations	Overhead Electric (Assumed)	\$ - \$ - \$ -
Relocations	Overhead Gas (Assumed)	\$ - \$ - \$ -
Relocations	Water (Assumed)	\$ - \$ - \$ -
Total Cost Utilities		\$ - \$ 10,000 \$ 10,000 \$ 20,000

**Permit Fees (Other)**

VDOT		\$ - \$ 120
Other		\$ - \$ - \$ 2,711
Total Cost Permits		\$ - \$ - \$ 2,831
PROJECT TOTALS:		\$ - \$ 399,920 \$ 57,351 \$ 452,831

1. Estimate based on 2 hour daily involvement for 52 week duration + 80 hours

2. Estimate based on 3 hour daily involvement for 52 week duration + 80 hours

3. WSSI Engineer's concept estimate

Order of Mag/Inception = 25% ±

TOTAL PROJECT ESTIMATE:

\$ 450,000



# 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

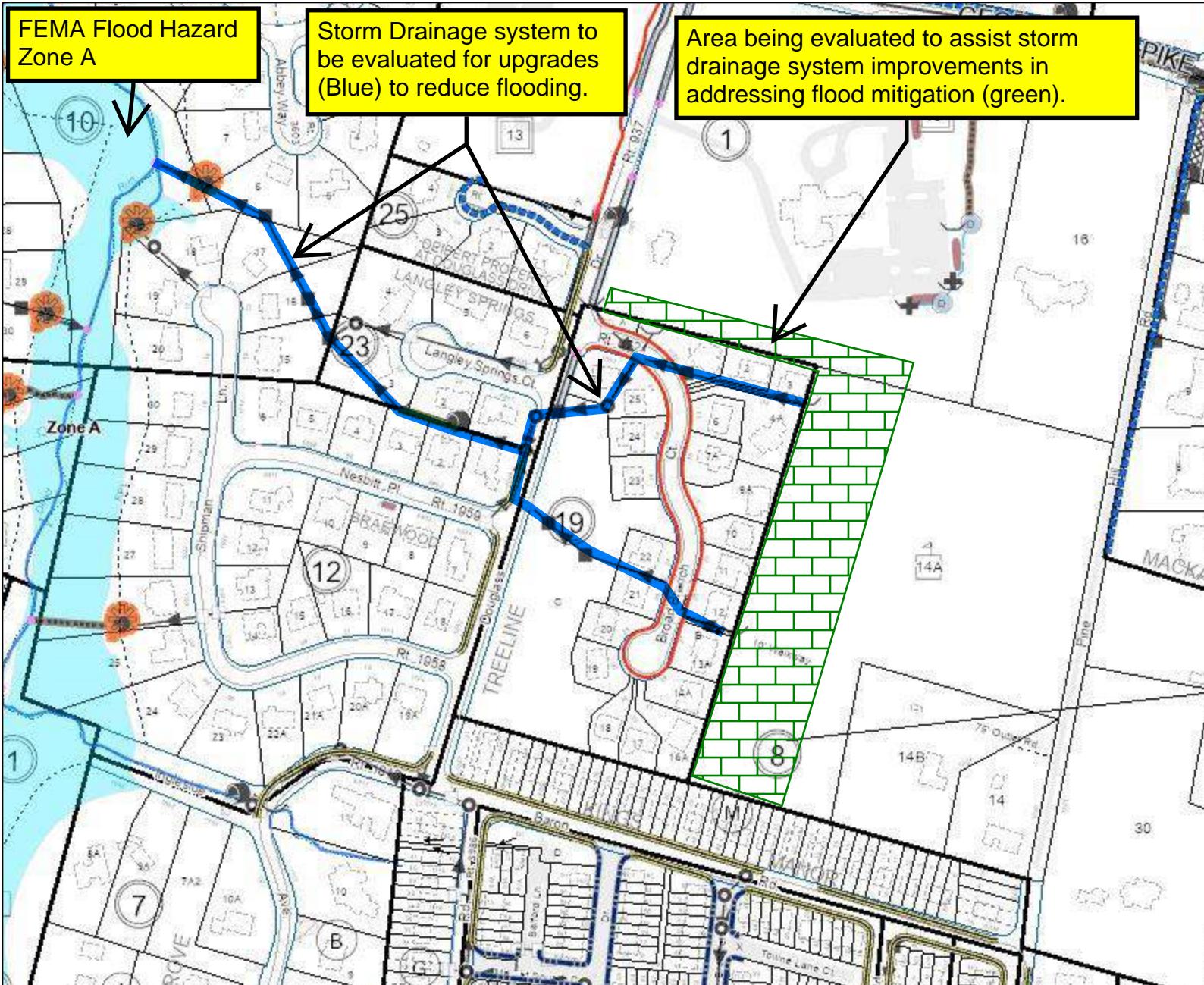
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)

Eleanor Ku Coddling, Deputy Director, DPWES, Stormwater and Wastewater Divisions

Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division



# Broad Branch Court STW Improvements Stormwater Improvement



0

0.14

0.3 Miles

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

Major Roadways	
Interstates; Toll Roads	
Parkways; Major Arterials	
Walkway Maintenance Respo	
Dept of Public Works & Environme	
Fairfax County Facilities Manageme	
Fairfax County Public Schools	
Northern Virginia Regional Park Au	
Private	
Reston Association	
Unknown	
Virginia Department of Transportati	
Stormwater Structures	
Bilco Door	
Bioretention	
Control Structure	
Curb Inlet	
Dry Pond	
Farm Pond	
Grate Inlet	
Inlet	
Junction Box	
MS4 Outfall	
MS4 Piped Discharge	

Notes:

Map produced: 10/24/2023

# National Flood Hazard Layer FIRMette



ATTACHMENT 7

## Legend

SEE HS REPORT FOR DETAILED LEGEND AND INDEX FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE); Zone A, V, AE

With BFE or Depth 1% AF: AH, AH, VE, VH

Regulatory Floodways

### SPECIAL FLOOD HAZARD AREAS

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

### OTHER AREAS

Area of Undetermined Flood Hazard Zone U

GENERAL STRUCTURES - - - - - 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 NFHIL web services provided by FEMA. This map was exported on 10/24/2023 at 8:06 AM and does not reflect changes or amendments subsequent to this date and time. The NFHIL 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 unmodeled areas cannot be used for regulatory purposes.

77°10'35"W 38°57'9"N

Feet

1:6,000

77°10'35"W 38°57'6"N

0 250 500

1,000

1,500

2,000

Basemap Imagery Source: USGS National Map 2023



# Virginia Flood Risk Information System (VFRIS)

ArcGIS WebMap

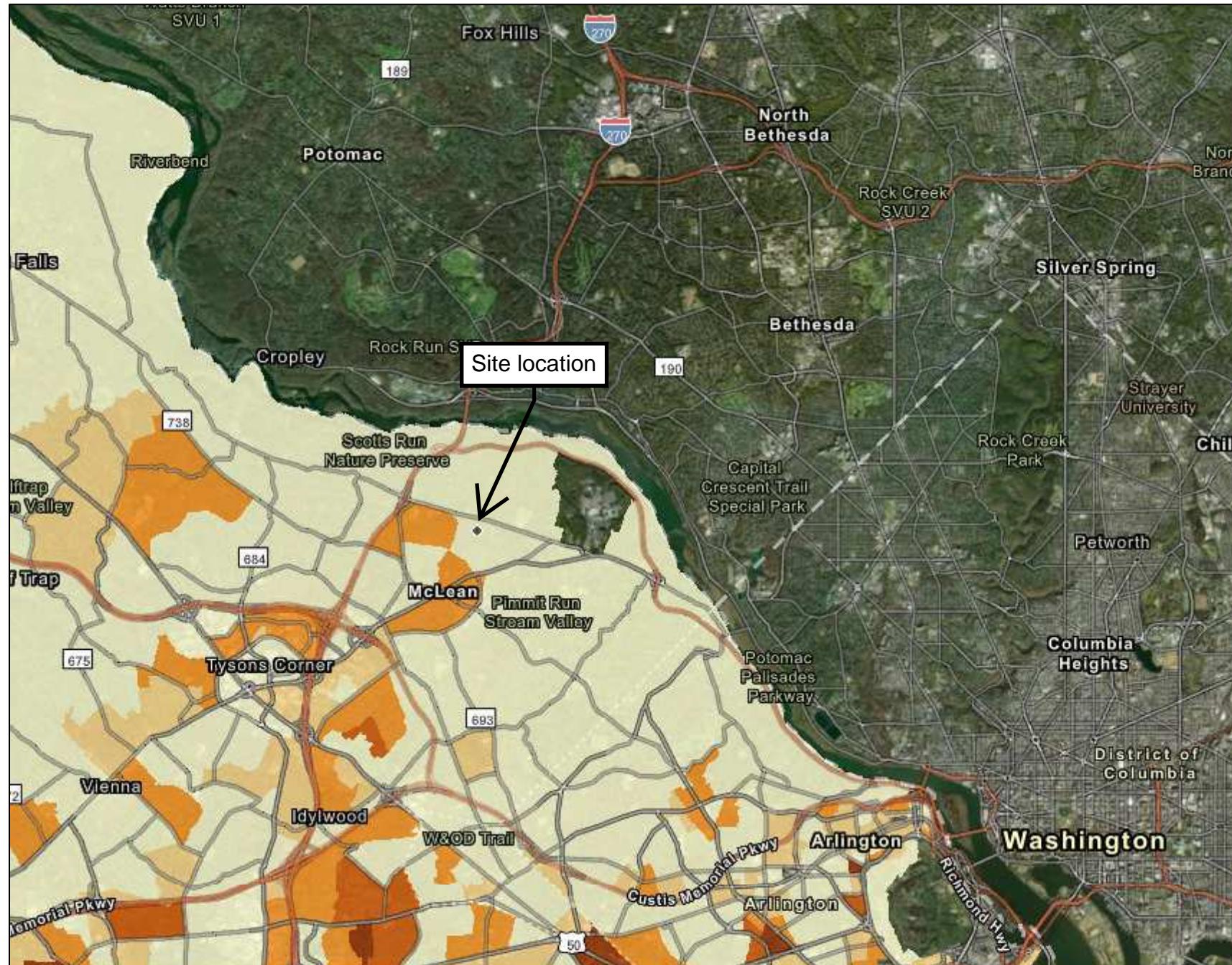
ATTACHMENT 8

Date: 10/24/2023

## Legend

Virginia Social  
Vulnerability  
Block Groups  
2020

- Very Low Social Vulnerability
- Low Social Vulnerability
- Moderate Social Vulnerability
- High Social Vulnerability
- Very High 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 1 2 mi



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

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

Name of Local Government:

Category Being Applied for (check one):

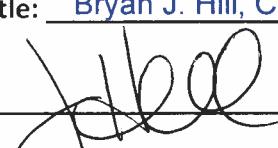
Capacity Building/Planning

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.

Fairfax County Dead Run Watershed - Broad  
Location of Project or Activity (Include Maps): Branch Court

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): Project outfalls directly into FEMA Zone A

Flood Insurance Rate Map Number(s) (If Applicable): 51059C0160E

Total Cost of Project: \$450,000

Total Amount Requested \$270,000

Amount Requested as Grant \$270,000

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: Broad Branch Stormwater Improvement Project

Community Flood Preparedness Fund &

Resilient Virginia Revolving Loan Fund

Detailed Budget Narrative

Period of Performance: Spring 2024 through Spring 2027

Submission Date: November 2023

								<b>Grand Total State Funding Request</b>	\$ 270,000.00
								<b>Grand Total Local Share of Project</b>	\$ 180,000.00
								<b>Federal Funding (if applicable)</b>	\$ -
								<b>Project Grand Total</b>	\$ 450,000.00
								<b>Locality Cost Match</b>	40%
<b>Breakout By Cost Type</b>	<b>Personnel</b>	<b>Fringe</b>	<b>Travel</b>	<b>Equipment</b>	<b>Supplies</b>	<b>Contracts</b>	<b>Indirect Costs</b>	<b>Other Costs</b>	<b>Total</b>
Federal Share (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,000.00	\$ -	\$ -	\$ 180,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000.00	\$ -	\$ -	\$ 270,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>

## **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.

# FAIRFAX COUNTY

## Broad Branch Court STW Improvements Project

Virginia Community Flood Preparedness Fund

2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-2



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## Attachments

Attachment 1. Adopted Fairfax County Fiscal Year 2024 budget

Attachment 2. County Resilience Plan

Attachment 3. Project encumbrances

Attachment 4. Total project cost estimate

Attachment 5. Request for funding authorization

Attachment 6. Detailed map of the project area

Attachment 7. FIRMette of the project area

Attachment 8. Social vulnerability map

## Appendices

Appendix A

Appendix B

Appendix C

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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 mitigate flooding at the Broad Branch CT neighborhood in McLean within the Dranesville Magisterial District. The project, Broad Branch Court STW Improvements Stormwater Improvement, provides flood control solutions. It focuses on improving the drainage system to mitigate localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual (PFM) to capture and convey the 100-year 24-hour storm within the minor conveyance system using innovative and functional design to improve public safety and sound cost effective solution.

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. In order 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 addresses community concerns and supports resilience goals by addressing the watershed drainage problem within the project area.

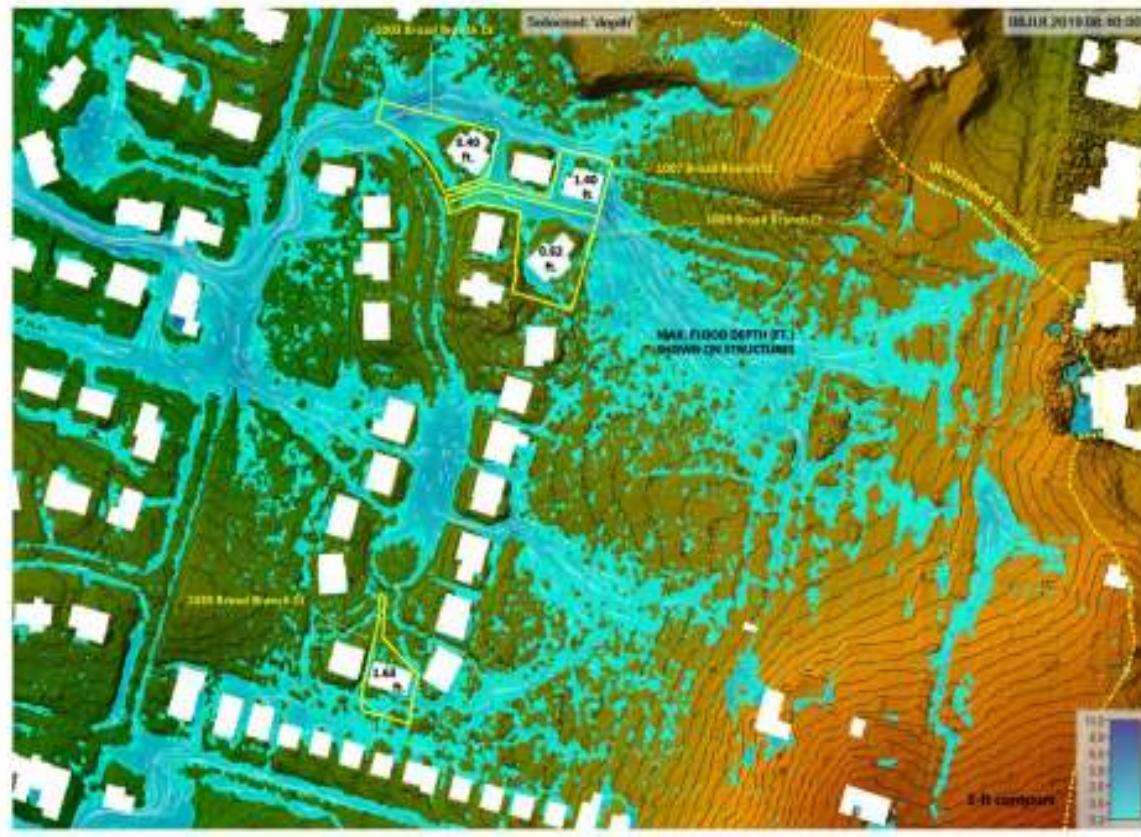
## Scope of Work Narrative

### 1. Project Information

Broad Branch Ct. Neighborhood located in McLean within the Dranesville Magisterial District in Fairfax County, where it suffers from drainage issues. On July 8, 2019, an exceptionally severe rainstorm passed through the Dranesville District of Fairfax County, two property owners reported structural flooding. Since then, County engineers have been working with citizens to gather data and make initial assessments about the severity and potential causes of flooding at the affected properties. These neighborhoods were built prior to many stormwater management requirements and contain little infrastructure to adequately convey runoff from numerous residential lots and roadways.

During the rainstorm event on July 8, 2019, a significant amount of overland flow was directed to the existing headwall and 30” pipe adjacent to 1007 Broad Branch Ct. The pipe capacity was overwhelmed, causing overland flow down the shared driveway and along the back side of these homes. Significant flow was also observed around another property at the end of Broad Branch Ct. (Map 1) where the flows exceeded the capacities of the existing yard inlet.

*Map 1: 100-year Limits*



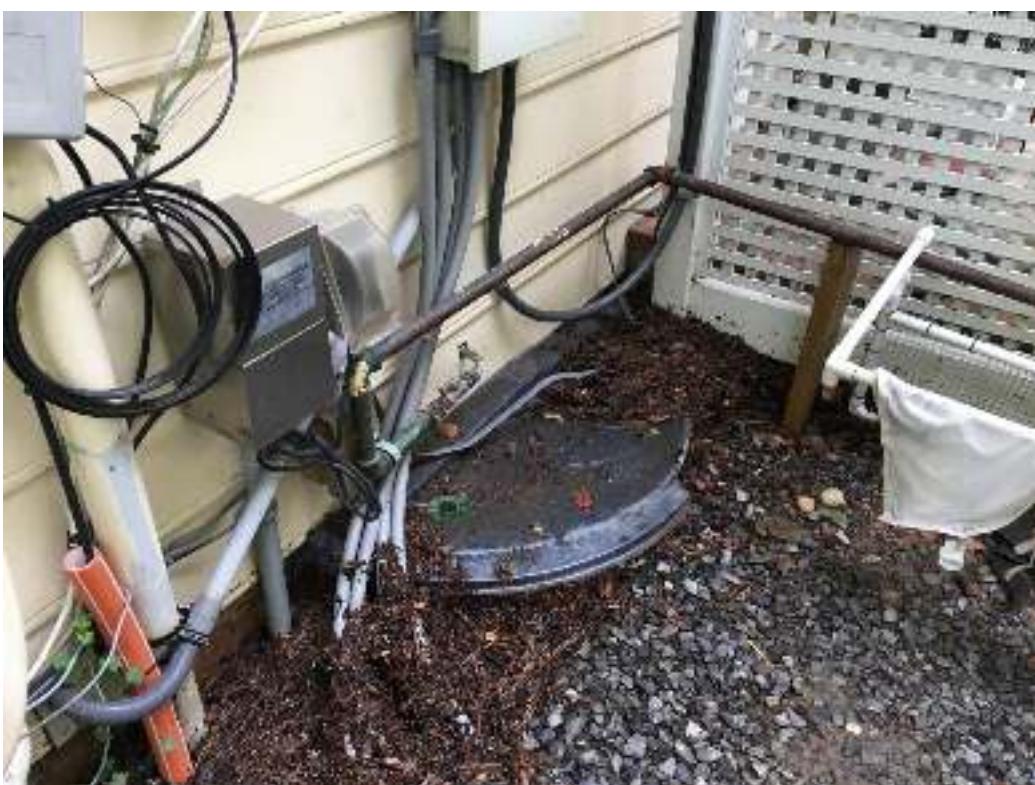
#### *Population*

Fairfax County has a population of about 1.17 million. The proposed project is in the Dranesville Magisterial District in McLean. The project impacts approximately 10 single family homes on Broad Branch Court.

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

The project area has a history of drainage issues with runoff coming off of the slope on the property to the east of Broad Branch Ct. Figure 1 below shows post storm images from the July 8, 2019, event. Five properties have reported overland flow or structural flooding from the July 8, 2019, event.

*Figure 1: Post Flood Pictures*



### *Local Government Cost Share*

The design of the project is identified in the County's FY24 stormwater capital improvement plan (CIP). It is currently anticipated that the County's cost-share would be provided through Emergency and Flood Response under Fund 40100 Stormwater Services in the Fairfax County Fiscal Year 2024 budget (see Attachment 1 for the County's stormwater CIP plan and County budget document).

### *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 (figure 3). 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 floodplain immediately downstream of the project area is classified as SFHA Zone-A.

### *Project Priority*

#### *Flood Damage*

This project was prioritized due to numerous structural and yard flooding complaints. Residences in the project area were constructed in the late 1970s prior to floodplain and stormwater management regulations. Properties at Broad Branch Ct. reported basement flooding. This flooding is due to the large amount of overland flow that drains from County property east of Broad Branch Ct. The runoff overwhelms the existing infrastructure resulting in localized flooding.

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

The project was prioritized as a result of several neighborhood resident reports of drainage issues. Fairfax County participated in the development of Northern Virginia Hazard Mitigation Plan, and this plan identified flooding as one of the highest-ranked hazards for the county. Figure 2 shows hazard rankings for Fairfax County from the current 2022 Northern Virginia Hazard Mitigation Plan.

Figure 2: Table from 2022 Northern Virginia Hazard Mitigation Plan

Table 12: Hazard Risk Ranking Summary: Natural Hazards

Hazard	Total Probability Score	Total Consequence Score	Overall Risk Score	Hazard Ranking
Winter Storm	3.7	3.5	7.2	High
Flood/Flash Flood	1.7	4.2	5.9	High
High Wind/Severe Storm	2.7	3.2	5.8	High
Dam Failure	1.0	4.5	5.5	Medium
Tornado	1.3	4.2	5.5	Medium
Extreme Temperatures	2.7	2.5	5.2	Medium
Drought	2.0	3.2	5.2	Medium
Earthquake	1.7	3.2	4.9	Medium
Wildfire	1.0	3.0	4.0	Low
Karst/Sinkhole/Land Subsidence	1.0	2.5	3.5	Low
Landslide	1.0	2.5	3.5	Low

Figure 3: NFIP and CRS participation



## 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. Fairfax County's adopted Fiscal Year 2024 Stormwater Services budget includes \$7.0 million for emergency and flood response projects (Figure 4), 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.

*Figure 4: 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
CAPIVDAP Grant Contribution to NVSNCD (2G25-011-C0C)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,843,450.33	5,000,929.65	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	5,009,029.28	12,180,745.62	11,000,000	11,000,000
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,386.22	7,885,633.78	4,179,875	4,179,875
<b>Emergency and Flood Response Projects (SD-000032)</b>	<b>43,861,661</b>	<b>1,263,804.43</b>	<b>20,389,681.87</b>	<b>7,000,000</b>	<b>7,000,000</b>
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,040.00	640,000	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,202.02	2,480,742.22	0	0
Lake Accotink Dredging (SD-00041)	5,000,000	516,946.24	3,608,858.14	0	0
NVSNCD Contributory (2G25-007-000)	7,138,388	564,811.00	609,346.00	509,346	509,346
Occonquan Monitoring Contributory (2G25-008-000)	1,940,079	177,789.00	189,437.00	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 Profilers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,586.07	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)	280,310,473	17,160,729.68	86,559,775.25	25,628,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,876	600,087.34	1,306,485.83	0	0
Tree Preservation and Plantings (2G25-030-000)	338,498	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$65,797,438.76</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 Vulnerability Index Map (Attachment 8), the project is not in a socially vulnerable area.

### *Alternatives*

The project will propose a hybrid solution.

### **3. Goals and Objectives**

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

- Improve the drainage system and reduce localized flooding by designing an adequate drainage system as defined in the County codes and Public Facilities Manual. The design will evaluate the cumulative increases in runoff from infill development based on existing and future buildout conditions.
- Address public safety concerns.
- Use innovative, sustainable, and functional designs.
- Develop a sound, cost effective solution that can be collaboratively implemented and maintained.

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

The main goal of this project is to design a more resilient stormwater management conveyance system in the Broad Branch Ct. neighborhood. The existing conveyance system in the project area, which serves a drainage area of approximately 54 acres (Figure 1). The County will evaluate the nearby county owned property east of Broad Branch Ct. for potential supplementary grading and other options to assist the storm drainage system improvements and further control stormwater runoff during larger storms.

Typically, closed stormwater conveyance systems are designed to carry the 10-year flow. Due to repeated flooding the County's desire to integrate resiliency into the design, the closed conveyance system may potentially be designed to accommodate up to the 100-year flow capacity within the system (Map 2).

### **5. Work Plan**

<b>Major Tasks</b>	<b>Responsible Party</b>	<b>Timeframe</b>	<b>Partners</b>
Negotiate Design Task Order	Consultant and County	3 months from grant award notice	
Complete Final Design	Consultant and County	2 years from Notice to Proceed with the Design	Community and Property Owners

Map 2: Detailed Map of Infrastructure



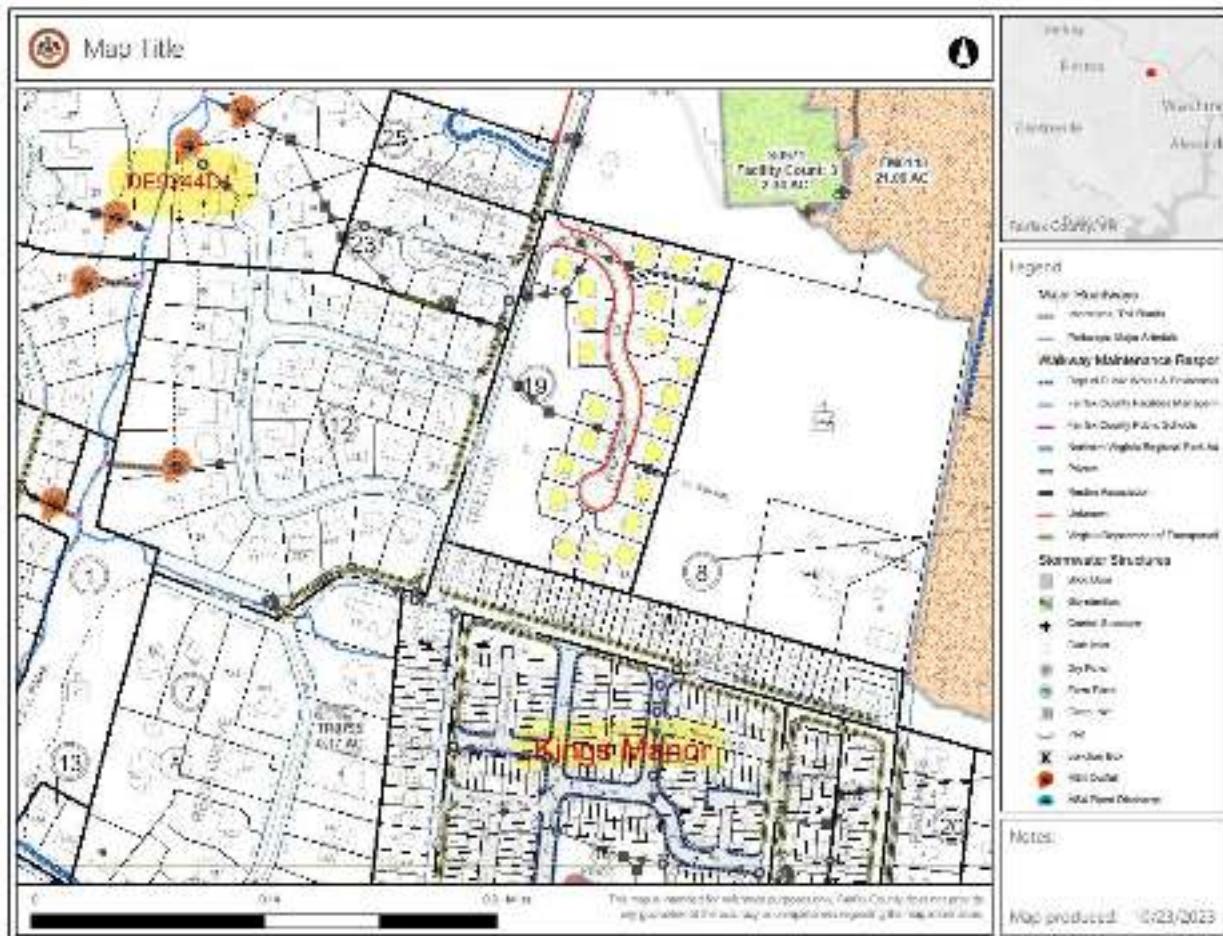
## 6. Relationship to Other Projects

Fairfax County's Middle Potomac Watershed Management Plan identified the area immediately downstream of this project for stream restoration. The Broad Branch Ct. neighborhood is adjacent to the Kings Manor Town homes stormwater improvement project, another area with known drainage issues (Map 3). The Broad Branch Ct. neighborhood is upstream of a stream restoration project (identified as DE9244D1) and could provide additional controls for stormwater runoff water that will enter the channel identified under DE9244D1.

The Dead Run Watershed Management Plan can be found in the following link for the Middle Potomac Watershed Management Plan:

<https://www.fairfaxcounty.gov/publicworks/stormwater/middle-potomac-watersheds>

### *Map 3. Relationship to other projects*



## 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 restoration projects. Since this project will be constructed by the county, it will be maintained by MSMD.

## *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 2)*

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 Emergency and Flood Response Projects (see Attachment 1).*

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 reduce the flooding in the neighborhood. The project design objective is to provide resiliency in the closed system to handle the 100-year storm event. The County will further evaluate the public property to the east of Brand Branch Ct. to further enhance the storm drainage system improvements with green stormwater infrastructure and detention.*

## SUPPORTING DOCUMENTATION

Scope of Work Narrative	
Documents	Link or Attachment
Detailed map of the project area	Attachment 6
FIRMette of the project area	Attachment 7
Historic flood damage data/image	Figure 1 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/fairfax-county-comprehensive-plan">https://www.fairfaxcounty.gov/planning-development/fairfax-county-comprehensive-plan</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)	2002, 2011, 2012

## Budget Narrative

### 1. Estimated Total Project Design Services Cost

The estimated total cost for conceptual design services for Broad Branch Ct. Stormwater Improvement project is \$450,000.

#### Unencumbered: \$450,000

Design Services: \$400,000

Land Acquisition: \$30,000

Utilities & Permits: \$20,000

See Attachment 3 for the project encumbrances and Attachment 4 for the total project estimate.

### 2. Grant Requested

The County requests \$270,000 from the Fund (50% of the Design Services Cost). This is the total amount of any grant assistance sought from the Fund. 100% of this grant will be applied to the Design services of the project.

### 3. Available Funds

Fairfax County has not encumbered any funds for the design task order, land acquisition and utilities designation. Additional funds for the cost-share are available in Emergency and Flood Response under Fund 40100 Stormwater Services in the adopted Fairfax County Fiscal Year 2024 budget (Attachment 1).

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.

## Conclusion

Fairfax County has many older neighborhoods which were built prior to current floodplain regulations. Due to the global influence of climate change, rainfall intensity has changed over time resulting in the flooding of more and more neighborhoods and roadways. The implementation of this project, where limited conveyance exists, will provide the greatest relief to the neighborhood. The project not only provides a resilient conveyance system, but also improves water quality for the drainage shed. Fairfax County is therefore requesting funding support for the implementation of the project to reduce flooding threats to the neighborhood.

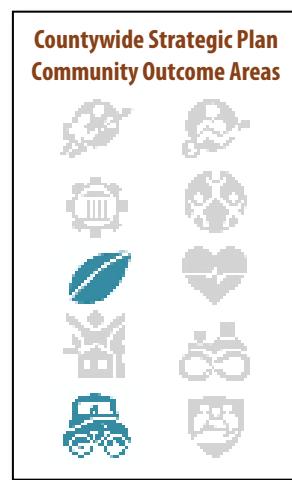
# Fund 40100: Stormwater Services

## 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-office-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.

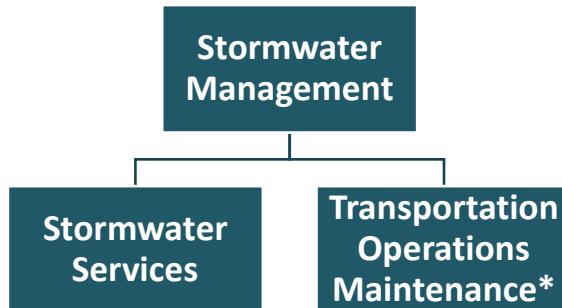
### *Stream and Water Quality Improvements*

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

---

*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>

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.

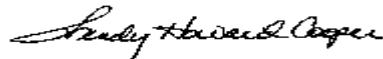
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater 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

**From:** [REDACTED]  
**Sent:** Tuesday, October 24, 2023 10:03 AM  
**To:** [REDACTED]  
**Subject:** RE: Broad Branch Court STW Improvements Project, SD-00032-128

[REDACTED]

**There are no encumbrances associated with the project currently unless there is one pending process.** Jenifer would know more about that. Please let us know if there's anything else you need.

[REDACTED]

DPWES, Stormwater Management  
12000 Government Center Parkway Suite 368.2  
Fairfax, VA 22035

"I hope that all of us or none of us are judged by the actions of our weakest moments,  
but rather by the strength we show when and if we're ever given a second chance."

---

**From:** [REDACTED]  
**Sent:** Tuesday, October 24, 2023 9:51 AM  
**To:** [REDACTED]  
**Subject:** Broad Branch Court STW Improvements Project, SD-00032-128

[REDACTED]

I'm searching for any encumbrances associated with the subject project. I searched Focus and nothing showed up. I just wanted to confirm that nothing has been encumbered for this project.

DEPARTMENT OF PUBLIC WORKS

Date: 10/24/2023  
 Project Name: Broad Branch Court STW Improvements  
 Project Number: SD-000032  
 Sub PN: 128  
 Fund: 400-C40101

Type of Estimate (Check One)  
 Order of Mag/Inception = 25% ±  
 Preliminary/schematic = 15% ±  
 Design-plans & Land acq. = 10% ±  
 Const. after bid = 5%  
 Mid Const. 50% complete = 2%  
 Project complete

ITEM Hours	Cost Estimate		
	Prior	FY24	Future

**Land Acquisition:**

Number of parcels:	0		\$0	\$ - \$ - \$ -
Land Costs:	0			
Damages:	0			
Appraisals: No.	0	6	@ \$3,000	\$ - \$ - \$ 18,000
Title Exams: No.	0	6	@ \$1,300	\$ - \$ - \$ 7,800
Staff Hours:	0	60	@ \$52	\$ - \$ - \$ 3,120
Outside Counsel			@ \$0	\$ - \$ - \$ -
				\$ - \$ 28,920 \$ 30,000

**Stormwater Planning Design Engr.:**

Design Engr.	0	0	@ \$51	\$ - \$ - \$ -
Drafting			@ \$41	\$ - \$ - \$ -
Engr. Support	0	0	@ \$41	\$ - \$ - \$ -

**County Inspections, Plan Review and Permitting Fees:**

<b><u>County Engineering and Construction Management</u></b>				
Proj. Engr.	0	0	@ \$65	\$ - \$ 0.00 \$ 0.00
Plans: (per set)			@ \$50	\$ - \$ - \$ -
Advertisement:				\$ - \$ - \$ -
Specifications:				\$ - \$ - \$ -
Location Survey:			@ \$125	\$ - \$ - \$ -
<b><u>Construction</u></b>				
Survey S/O			@ \$125	\$ - \$ - \$ -
As-Built Survey			@ \$130	\$ - \$ - \$ -
Proj. Engr. <sup>1</sup>	0		@ \$65	\$ - \$ - \$ -
Proj. Insp. <sup>2</sup>	0		@ \$53	\$ - \$ - \$ -
				\$ 0.00 \$ 0.00 \$ 0.00

**Design Consultant** Firm Name: Wetland Studies

Topo		\$ - \$ - \$ -
Design		\$ - \$ 400,000 \$ -
Geotechnical/Contamination/Soil Testing		\$ - \$ - \$ -
<b><u>Construction</u></b>		\$ - \$ - \$ -
Stakeout		\$ - \$ - \$ -
Geotechnical		\$ - \$ - \$ -
Oversight ( <i>including as-built</i> )		\$ - \$ - \$ -
As-builts		\$ - \$ - \$ -
Total Cost Outside Engineering		\$ 400,000 \$ - \$ 400,000

**Outside Construction (i.e. by the contractor)**

Stakeout		\$ - \$ - \$ -
Construction <sup>3</sup>		\$ - \$ - \$ -
As-builts		\$ - \$ - \$ -
Total Cost Outside Construction		\$ - \$ - \$ - \$ -

**Utilities**

Designation		\$ - \$ 10,000 \$ -
Test Pits		\$ - \$ - \$ 10,000
Relocations	Overhead Electric (Assumed)	\$ - \$ - \$ -
Relocations	Overhead Gas (Assumed)	\$ - \$ - \$ -
Relocations	Water (Assumed)	\$ - \$ - \$ -
	Total Cost Utilities	\$ - \$ 10,000 \$ 10,000 \$ 20,000

**Permit Fees (Other)**

VDOT		\$ - \$ 120
Other		\$ - \$ - \$ 2,711
Total Cost Permits		\$ - \$ - \$ 2,831
PROJECT TOTALS:		\$ - \$ 399,920 \$ 57,351 \$ 452,831

1. Estimate based on 2 hour daily involvement for 52 week duration + 80 hours

2. Estimate based on 3 hour daily involvement for 52 week duration + 80 hours

3. WSSI Engineer's concept estimate

Order of Mag/Inception = 25% ±

TOTAL PROJECT ESTIMATE:

\$ 450,000



# 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

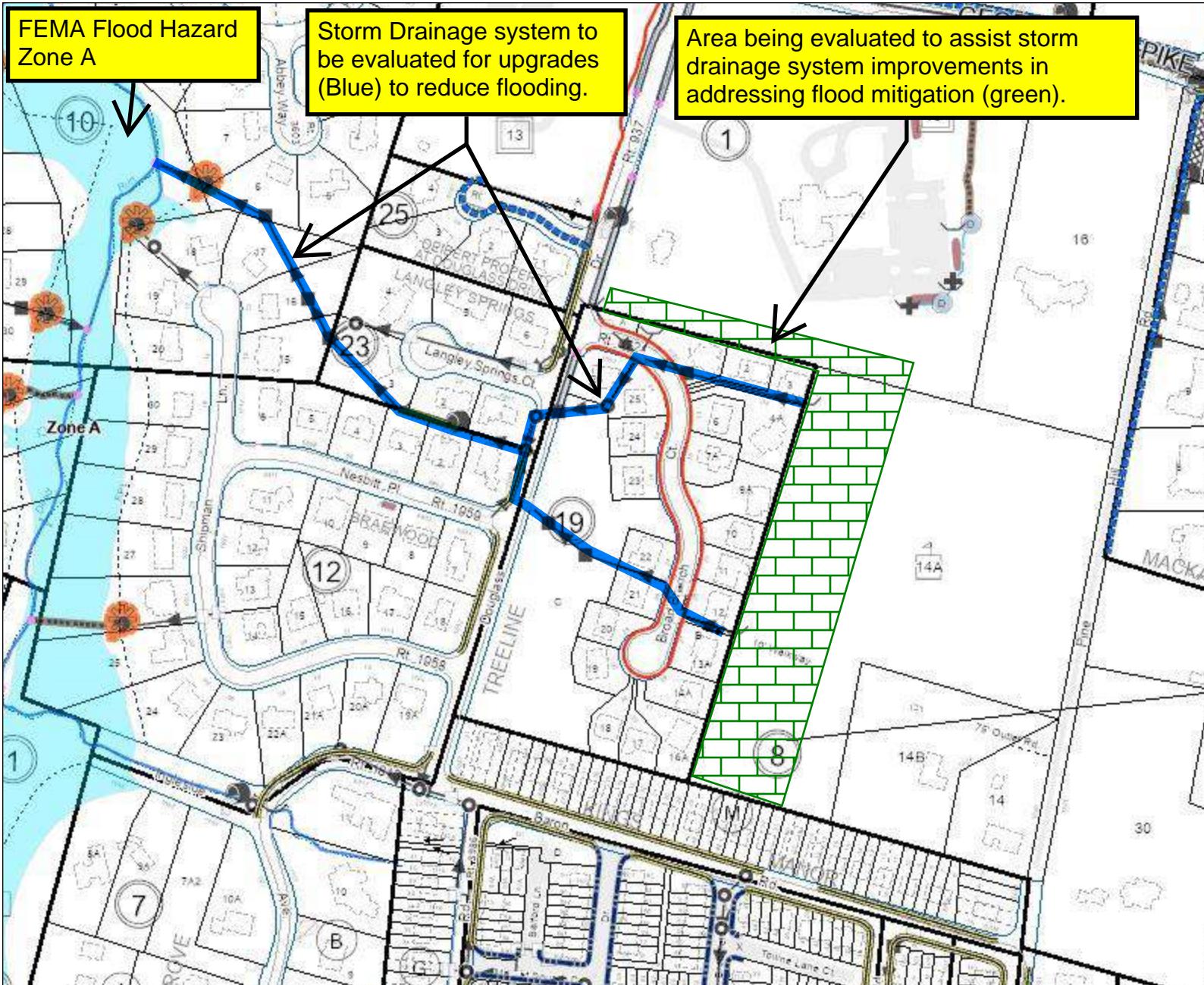
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)

Eleanor Ku Coddling, Deputy Director, DPWES, Stormwater and Wastewater Divisions

Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division



# Broad Branch Court STW Improvements Stormwater Improvement



0

0.14

0.3 Miles

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

Major Roadways	
Interstates; Toll Roads	
Parkways; Major Arterials	
Walkway Maintenance Respo	
Dept of Public Works & Environme	
Fairfax County Facilities Manageme	
Fairfax County Public Schools	
Northern Virginia Regional Park Au	
Private	
Reston Association	
Unknown	
Virginia Department of Transportati	
Stormwater Structures	
Bilco Door	
Bioretention	
Control Structure	
Curb Inlet	
Dry Pond	
Farm Pond	
Grate Inlet	
Inlet	
Junction Box	
MS4 Outfall	
MS4 Piped Discharge	

Notes:

Map produced: 10/24/2023

# National Flood Hazard Layer FIRMette



ATTACHMENT 7

## Legend

SEE HS REPORT FOR DETAILED LEGEND AND INDEX FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE); Zone A, V, AE

With BFE or Depth 1% AF: AH, AH, VE, VH

Regulatory Floodways

### SPECIAL FLOOD HAZARD AREAS

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

### OTHER AREAS

Area of Undetermined Flood Hazard Zone U

GENERAL STRUCTURES - - - - - 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

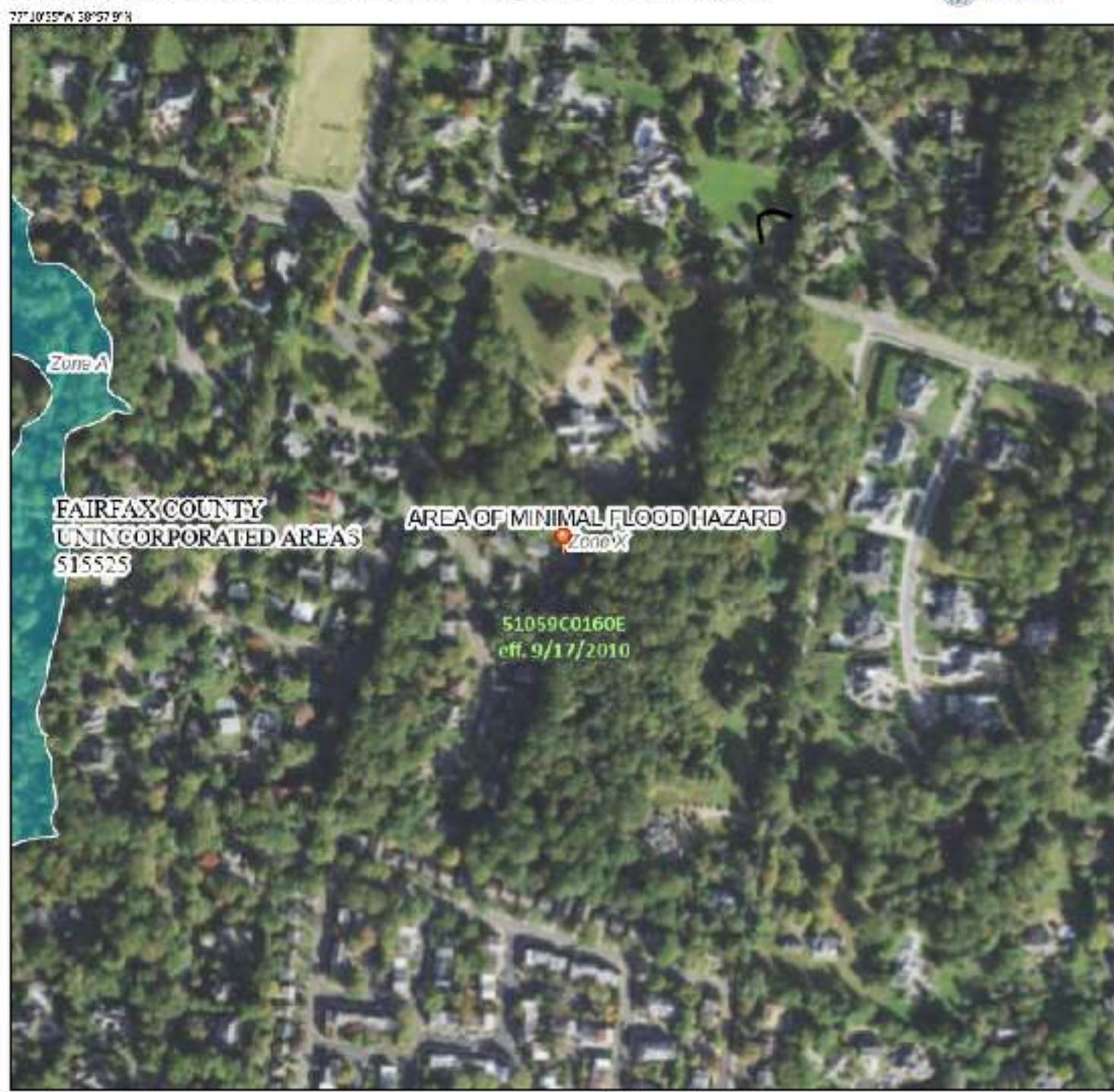


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 NFHIL web services provided by FEMA. This map was exported on 10/24/2023 at 8:06 AM and does not reflect changes or amendments subsequent to this date and time. The NFHIL 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 unmodeled areas cannot be used for regulatory purposes.



Feet

1:6,000

77°10'35"W 38°57'9"N



# Virginia Flood Risk Information System (VFRIS)

ArcGIS WebMap

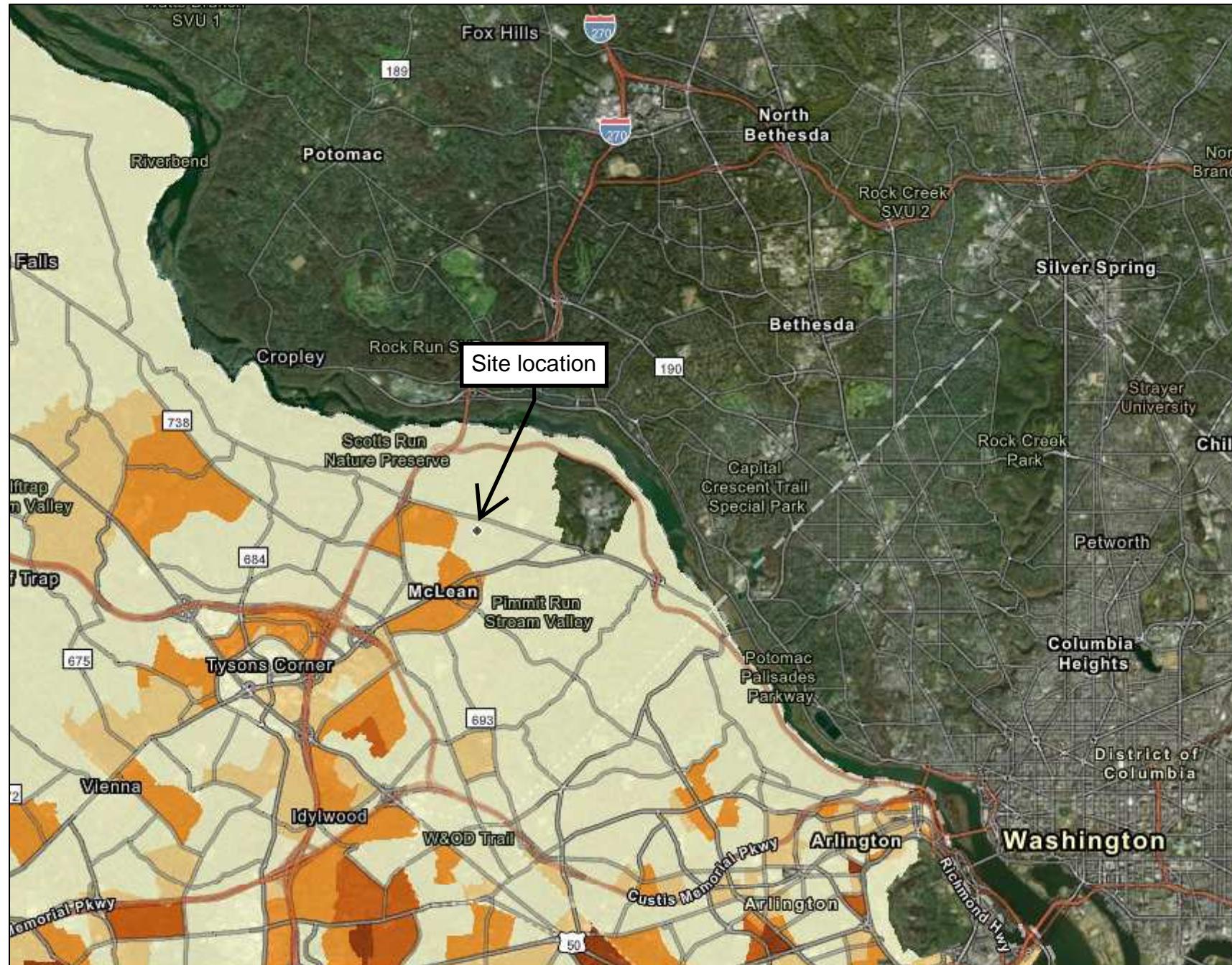
ATTACHMENT 8

Date: 10/24/2023

## Legend

Virginia Social  
Vulnerability  
Block Groups  
2020

- Very Low Social Vulnerability
- Low Social Vulnerability
- Moderate Social Vulnerability
- High Social Vulnerability
- Very High 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 1 2 mi



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

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

Name of Local Government:

Category Being Applied for (check one):

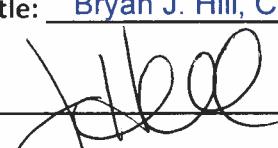
Capacity Building/Planning

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.

Fairfax County Dead Run Watershed - Broad  
Location of Project or Activity (Include Maps): Branch Court

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): Project outfalls directly into FEMA Zone A

Flood Insurance Rate Map Number(s) (If Applicable): 51059C0160E

Total Cost of Project: \$450,000

Total Amount Requested \$270,000

Amount Requested as Grant \$270,000

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: Broad Branch Stormwater Improvement Project

Community Flood Preparedness Fund &

Resilient Virginia Revolving Loan Fund

Detailed Budget Narrative

Period of Performance: Spring 2024 through Spring 2027

Submission Date: November 2023

								<b>Grand Total State Funding Request</b>	\$ 270,000.00
								<b>Grand Total Local Share of Project</b>	\$ 180,000.00
								<b>Federal Funding (if applicable)</b>	\$ -
								<b>Project Grand Total</b>	\$ 450,000.00
								<b>Locality Cost Match</b>	40%
<b>Breakout By Cost Type</b>	<b>Personnel</b>	<b>Fringe</b>	<b>Travel</b>	<b>Equipment</b>	<b>Supplies</b>	<b>Contracts</b>	<b>Indirect Costs</b>	<b>Other Costs</b>	<b>Total</b>
Federal Share (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,000.00	\$ -	\$ -	\$ 180,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000.00	\$ -	\$ -	\$ 270,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>

## **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.

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_FINAL.pdf**

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**Round 4 - 515525\_Fairfax\_Co\_Project\_Broad\_Branch\_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

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