

# 1976 - Woodglen Lake Toe Drain Repair

## 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 6:38 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:**

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

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

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

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

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

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

Is the contact person different than the authorized individual?

**Contact Person\*:** Yes

**Contact:** Joni Calmbacher  
First Name Last Name  
12000 Government Center Parkway  
Address Line 1  
Suite 449  
Address Line 2  
Fairfax Virginia 22305  
City State Zip Code

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

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

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

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

**Project Description\*:**

The Woodglen Lake Dam is located in the Burke Area of Fairfax County Virginia. The dam is over 30 years old; the original toe drains that were installed have deteriorated and are in need of replacement.

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\*:** 2004, 3000

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

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

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

**Flood Insurance Rate Map Number(s) (if applicable):** 51059C0265E

## 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 other projects

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

Social Vulnerability Scoring:

Very High Social Vulnerability (More than 1.5)

High Social Vulnerability (1.0 to 1.5)

Moderate Social Vulnerability (0.0 to 1.0)

Low Social Vulnerability (-1.0 to 0.0)

Very Low Social Vulnerability (Less than -1.0)

**Socially Vulnerable\***: 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?

**NFIP\***: No

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

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

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

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

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

**Pollution\***:

Does this project provide ?community scale? benefits?

**Community Scale Benefits\***: 50-100% of census block

Expected Lifespan of Project

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

Comments:

## Scope of Work - Projects - Round 4

### Scope of Work

Upload your Scope of Work

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

**Scope of Work\***: [Round 4\\_515525\\_Fairfax\\_Co\\_Project Woodglen\\_FINAL.pdf](#)

Comments:

Grant Application Report - See Scope of Work

### Budget Narrative

**Budget Narrative Attachment\***: [Round 4\\_515525\\_Fairfax\\_Co\\_Project Woodglen\\_FINAL.pdf](#)

Comments:

Grant Application Report - See Budget Narrative

## Scope of Work Supporting Information - Projects

### Supporting Information - Projects

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

**Population\***: 1170000.00

Provide information on the flood risk of the project area, including whether the project is in a mapped floodplain, what flood zone it is in, and when it was last

mapped. If the property or area around it has been flooded before, share information on the dates of past flood events and the amount of damage sustained

**Historic Flooding data and Hydrologic**

[See Grant Application Report.pdf](#)

**Studies\*:**

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\*:** All other Projects - Fund 50%/Match 50%

**Total Project Amount\*:** \$340,000.00

**REQUIRED Match Percentage Amount:** \$170,000.00

## BUDGET TOTALS

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

<b>Match Percentage:</b>	50.00%	Verify that your match percentage matches your required match percentage amount above.
<b>Total Requested Fund Amount:</b>	\$170,000.00	
<b>Total Match Amount:</b>	\$170,000.00	
<b>TOTAL:</b>	\$340,000.00	

## Personnel

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

## Fringe Benefits

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

## Travel

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

## Equipment

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

## Supplies

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

## Construction

Description	Requested Fund Amount	Match Amount	Match Source
Construction Costs	\$170,000.00	\$170,000.00	Dam Safety and Facility Rehabilitation CIP
	<b>\$170,000.00</b>	<b>\$170,000.00</b>	

## Contracts

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

#### 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*****Supporting Documentation***

Named Attachment	Required Description
Detailed map of the project area(s) (Projects/Studies)	Detailed Map
FIRMette of the project area(s) (Projects/Studies)	Firmette
Historic flood damage data and/or images (Projects/Studies)	See Grant Application
Alink to or a copy of the current floodplain ordinance	<a href="https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-251</a>
Maintenance and management plan for project	See Grant Application
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
<i>Benefit-cost analysis must be submitted with project applications over \$2,000,000. in lieu of using the FEMA benefit-cost analysis tool, applicants may submit a narrative to benefits of a flood mitigation project and compares those benefits to its cost-effectiveness.</i>	
Benefit Cost Analysis	
Other Relevant Attachments	Grant Application Report

#### **Letters of Support**

Description	File Name	Type	Size	Upload Date
No files attached.				

## Resilience Plan

### *Resilience Plan*

Description	File Name	Type	Size	Upload Date
Resilience Plan	<a href="#">515525_Fairfax_County_CFPF_Resilience_Plan_2021.10.25_reduced.pdf</a>	pdf	864 KB	11/10/2023 04:06 PM
Resilience Plan Approval	<a href="#">Round 4 A2 Resiliency plan approval.pdf</a>	pdf	346 KB	11/10/2023 04:07 PM

**FAIRFAX COUNTY**

**VIRGINIA COMMUNITY FLOOD  
PREPAREDNESS FUND  
RESILIENCE PLAN**



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## 1. Introduction

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

## 2. Regional Strategies and Plans

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

### A. Northern Virginia Hazard Mitigation Plan

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

The purpose of the plan is to:

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

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

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

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

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

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

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

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

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

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

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

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



Figure 1: Sea Level Rise Story Map

### 3. County Strategies and Plans

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

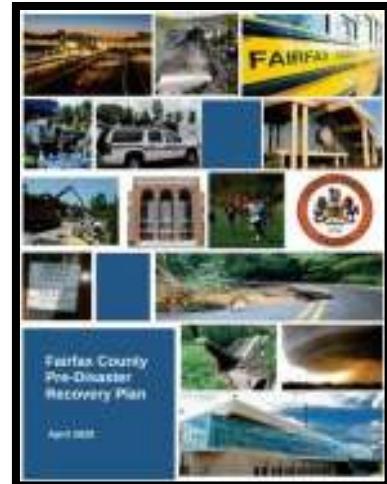


Figure 2: Pre-Disaster Recovery Plan Cover

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

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

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

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

#### F. Fairfax County Environmental Vision

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

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

[Link to Fairfax County Environmental Vision](#)

### 4. In-Progress Efforts

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

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

A. [Resilient Fairfax](#)

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

[Link to Resilient Fairfax Webpage](#)

B. [Countywide Regulatory Floodplain Mapping](#)

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

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

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

## 5. CFPF Resilience Plan Requirements

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

Resilience Plan Elements (from 2021 CFPF Grant Manual)

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

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

*Table 1: Required Resilience Plan Elements Comparison Table*

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

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

Clyde E. Cristman  
*Director*



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

January 10, 2022

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

RE: Fairfax County Resilience Plan Submission - CFPF

Dear Ms. Calmbacher,

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

The following elements were evaluated as part of this review:

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

Meets criteria as written.

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

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

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

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

Meets criteria as written.

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

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

Meets criteria as written.

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

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

Meets criteria as written.

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

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

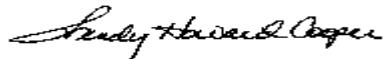
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater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

Meets criteria as written.

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

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

Sincerely,

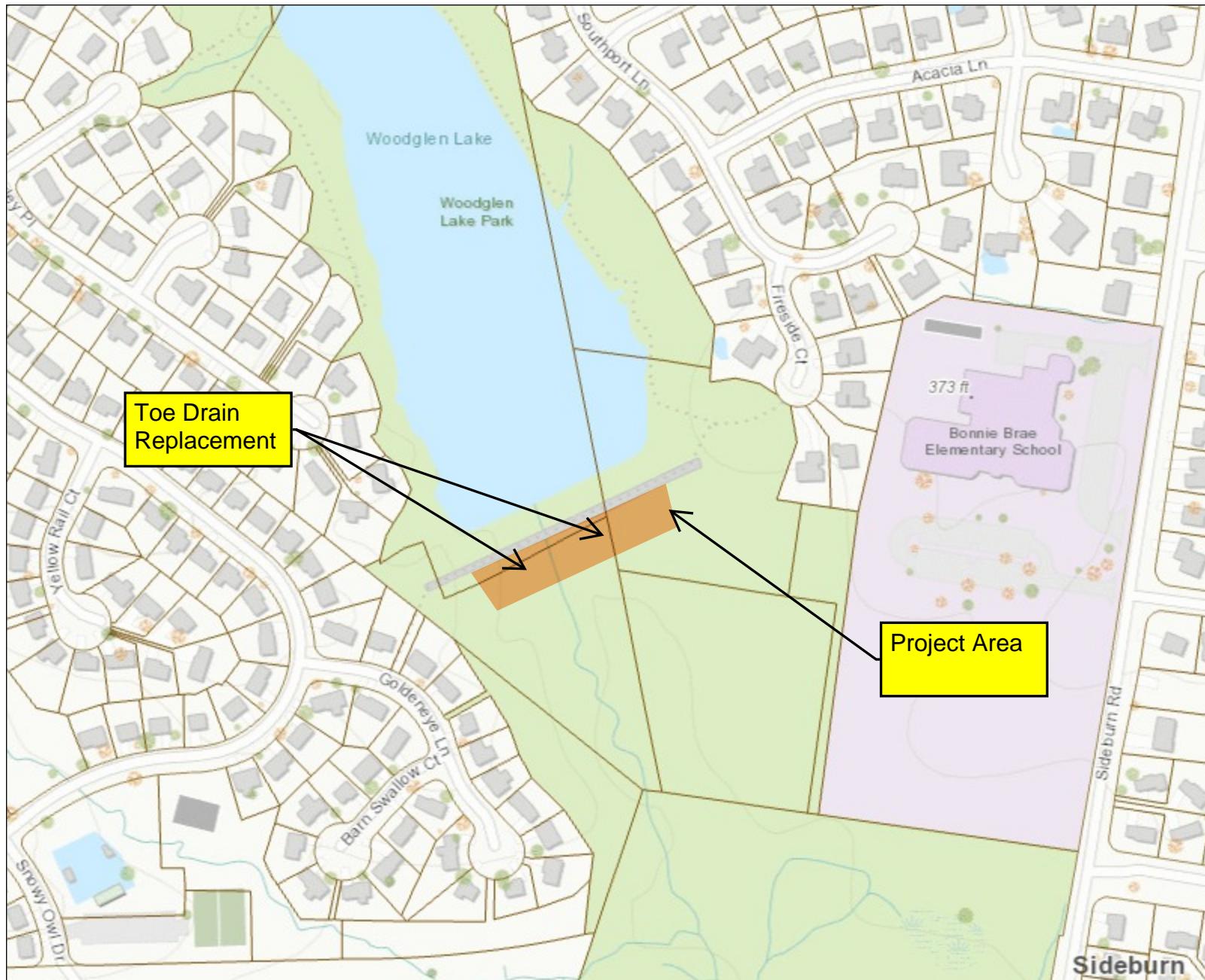


Wendy Howard Cooper, Director  
Dam Safety and Floodplain Management

cc: Darryl Glover, DCR



## Woodglen Lake



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

Parcels

Project Area

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette

77°19'14"W 38°48'20"N



## Legend

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

### SPECIAL FLOOD HAZARD AREAS

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

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

Future Conditions 1% Annual Chance Flood Hazard Zone X

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

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

20.2 Cross Sections with 1% Annual Chance

17.5 Water Surface Elevation

8 - - - Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

### OTHER FEATURES

- Digital Data Available
- No Digital Data Available
- Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/19/2023 at 1:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

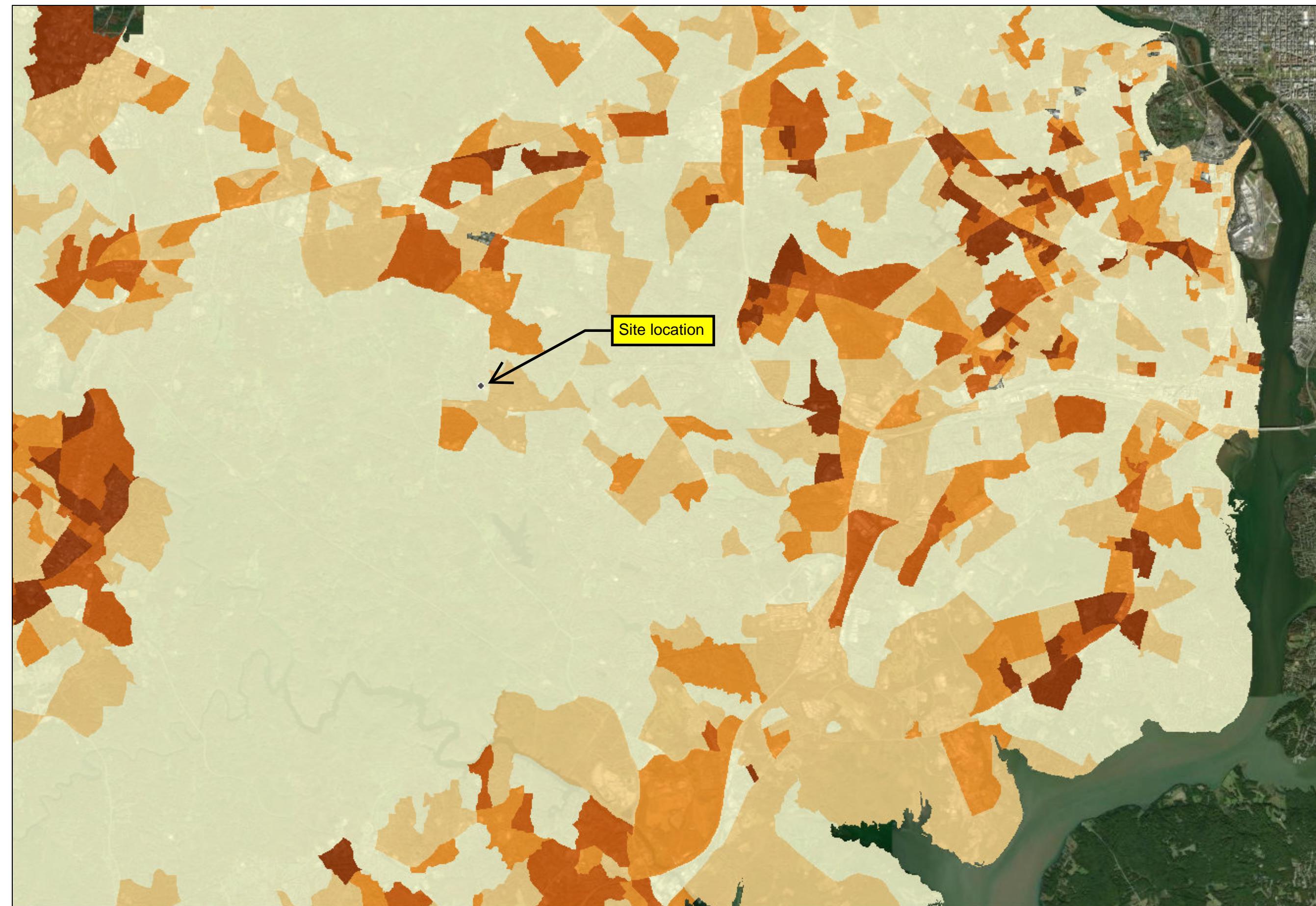
**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

## 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.

1:144,448  
0 1.25 2.5 5 mi



# County of Fairfax, Virginia

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

November 1, 2023

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

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

Dear Ms. Howard Cooper:

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

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

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

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

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

Sincerely,

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

Attachment: Community Flood Preparedness Fund (CFPF): Applications

Bryan J. Hill

Department of Conservation and Recreation, Virginia Community Flood Preparedness Fund

Page 2 of 2

cc: Rachel Flynn, Deputy County Executive

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

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

Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

# FAIRFAX COUNTY

## Woodglen Lake Toe Drain Repair

Virginia Community Flood Preparedness Fund

2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-4 (Woodglen Lake)



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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 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 maintain the dam embankment of Woodglen Lake in Burke within the Braddock Magisterial District. The project, *Woodglen Lake Toe Drain Repair*, is focused on replacing the inadequate toe drain system of the dam to extend the lifespan of the facility.

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 flooding, 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.

## Scope of Work Narrative

### 1. Project Information

The Woodglen Lake Dam is located in the Burke Area of Fairfax County Virginia. The facility outfalls to Sideburn Branch, a tributary to Pohick Creek which empties into the Potomac River. The dam was built in 1981 by the National Resources Conservation Service (NRCS) as a flood control facility under the authority of Public Law 83-566. It is a compacted earth-fill dam that mitigates downstream flooding, improves water quality, wildlife habitat and provides recreational activities to the community. The dam is classified as a high hazard state regulated facility. The dam is over 30 years old; the original toe drains that were installed have deteriorated and are in need of replacement.

#### *Population*

Fairfax County has a population of about 1.17 million. The proposed project is in the Braddock Magisterial District in Fairfax. A breach of the dam would impact approximately 73 structures, including 23 single family homes, 6 businesses, 44 multifamily houses and the thousands of people that ride the Norfolk Southern Railroad.

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

This facility was built by Natural Resources Conservation Services with Public Law 566 in 1981. It was one of 6 dams that were installed in the Pohick Creek watershed to provide flood control to the watershed. The largest storm event that the dam has experienced occurred in 2008 during Tropical Storm Hanna, it received 8.4" of rainfall in 12 hours which activated the emergency spillway.

#### *Local Government Cost Share*

Construction 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 Regulatory Program Support 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 4). 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-462>

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-AE.

#### *Project Priority*

##### *Project Need*

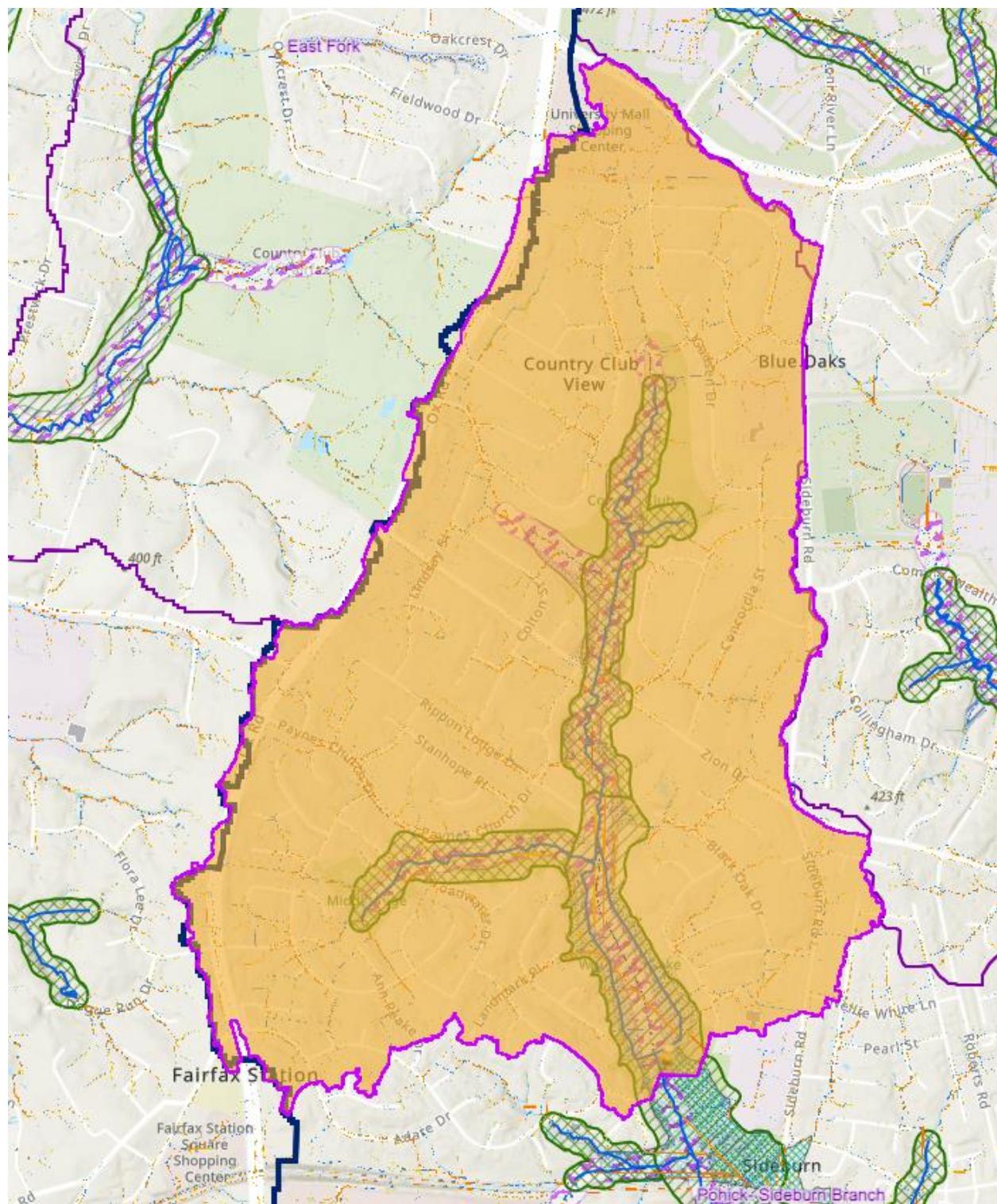
During the pre-project investigation an electrical resistivity test was performed on the dam to determine the subsurface condition of the dam. Electric resistivity detects large anomalously deep and or wet soils. It was found that the western portion of the dam located by the toe drain was more saturated and that this was due to the failure of the toe drain. The saturation of this area could lead to dam failure beginning with seepage and/or sloughing. Excerpts from the electric resistivity test are shown in Figures 1 and 2 below.

This facility receives approximately 768 acres of drainage. If the dam were to fail due to this, uncontrolled runoff would be released to the downstream area and impact residential and commercial areas and the Virginia Railway Express (VRE). The dam breach model is shown in Figure 3 Below.

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

The VRE has an average daily ridership of 6,200 people. The Burke Centre VRE station is located within the dam breach zone of Woodglen Lake. During a breach event, the VRE station would be under 6-9' of water.

Map 1: Project Drainage



Map 2: Woodglen Lake Toe Drain Rehabilitation location



Figure 1: Electric Resistivity Testing Grid

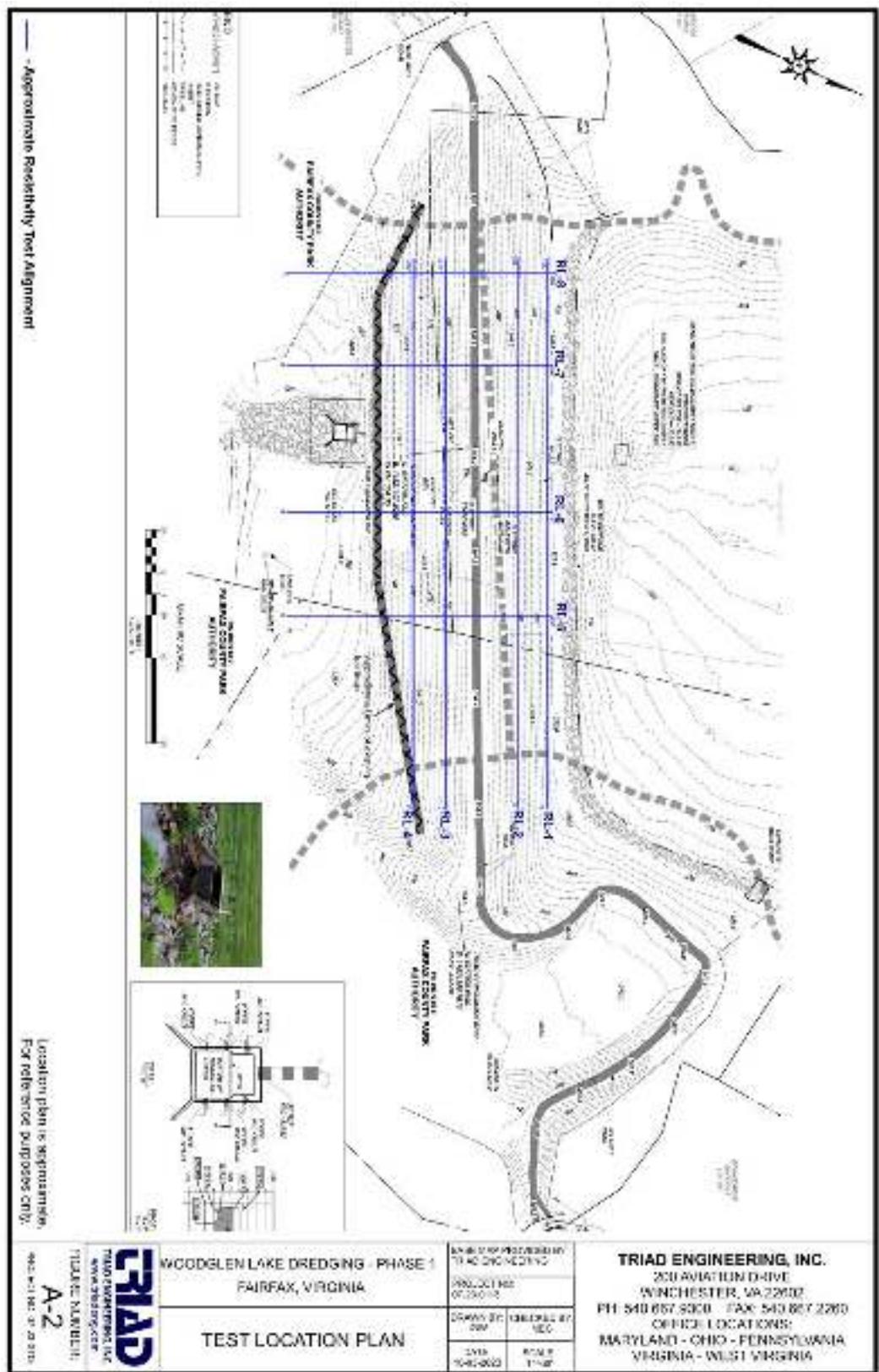


Figure 2: Electric Resistivity Section

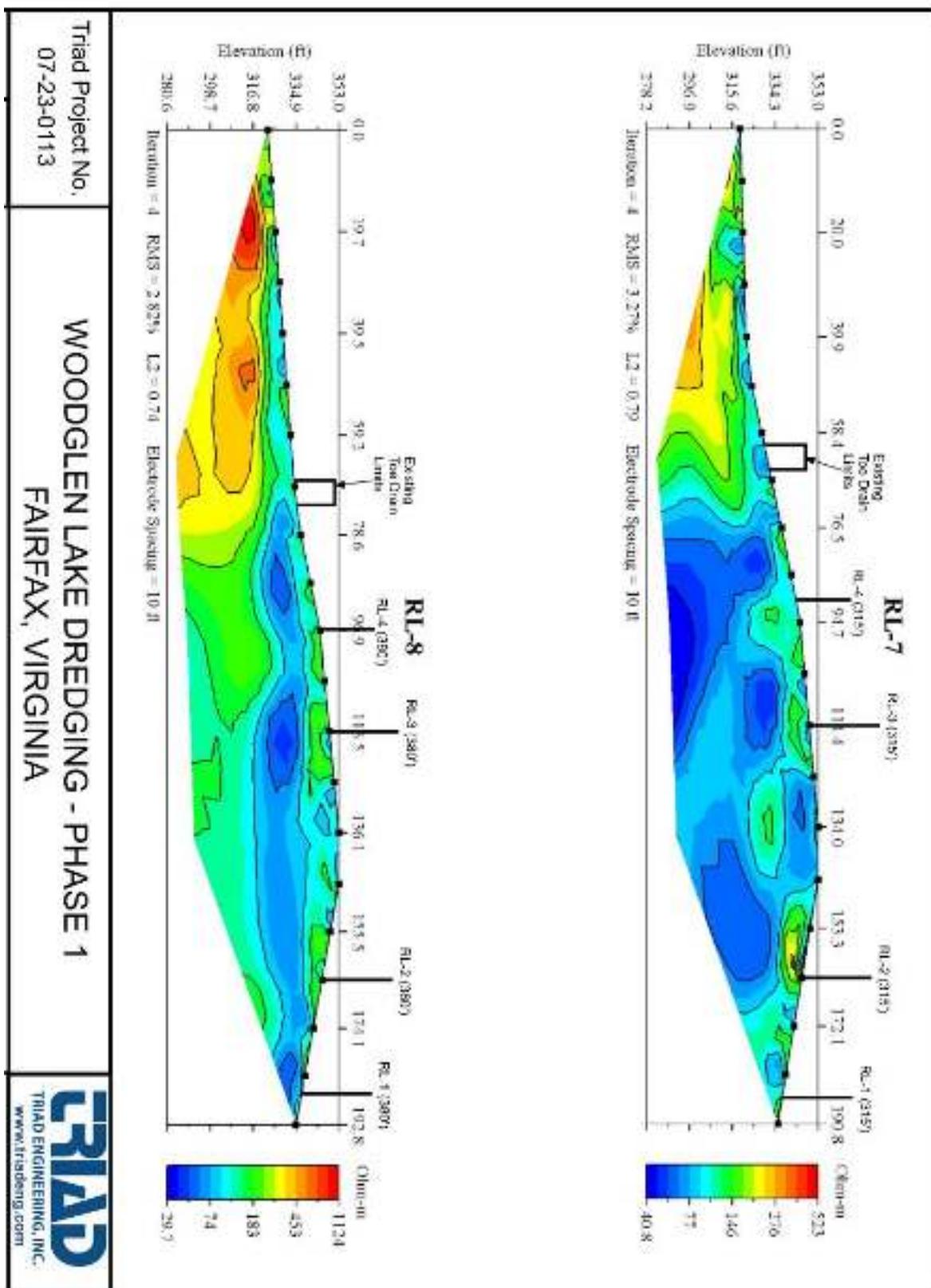
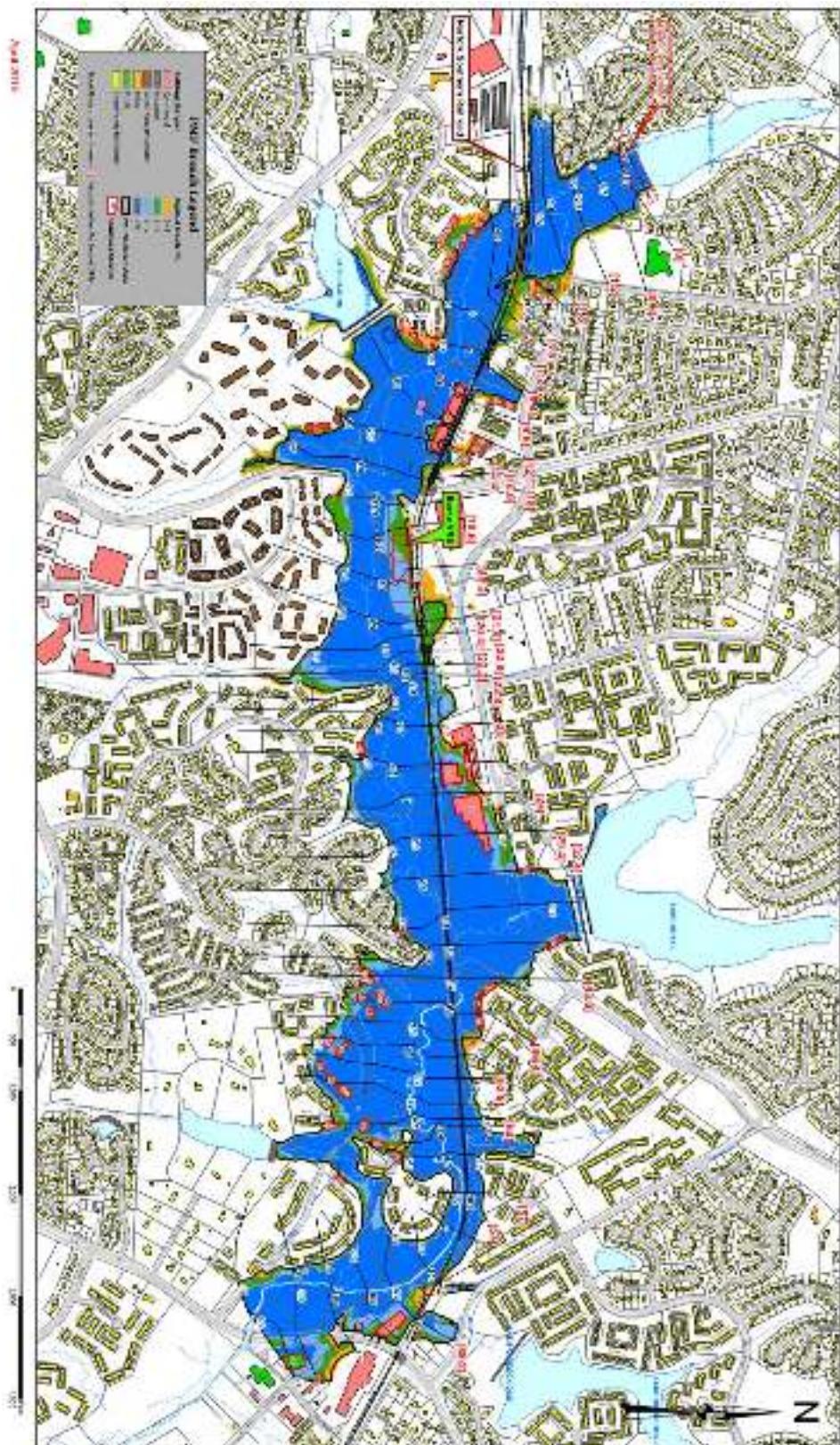


Figure 3: Dam Breach Model



**Woodglen Lake (Dam Site No. 3)**  
Overtopping Breach Zone [PMF]  
Depths, Travel Times, and Velocities

Figure 4: NFIP and CRS participation



## 2. Need for Assistance

### *Financial and Staff Resources*

The Stormwater Services Dam Safety and Facility Rehabilitation program supports the maintenance and flood monitoring detection of our existing stormwater dams. The program provides annual funding for scoping, design, and construction activities related to dam safety projects. Fairfax County's adopted Fiscal Year 2024 Stormwater Services budget includes \$11.0 million for Dam Safety and Facility Rehabilitation projects (see Figure 5), but the estimated need for these types of projects is significantly more. With the age of the county's dam inventory and the increase in the frequency and intensity of storms due to climate change, we expect the number of facility rehabilitation projects to grow, and the associated project design and construction costs will extend well beyond what the county's current dam safety and facility rehabilitation program can support.

*Figure 5. Fiscal Year 2024 Adopted Budget- Stormwater Services Summary of Capital Projects*

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-020-000)	16,725,000	1,643,450.33	5,090,929.66	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	11,770,027.96	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	20,389,881.87	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	2,480,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-C07-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoneechee 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 Profilers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,063,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,548.30	82,119,962.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,626,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,978	600,097.34	1,306,486.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>

#### *Low Income Geographic Areas*

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

#### *Vulnerability Index*

Based on the Vulnerability Index Map (Attachment 8), the project is not in a socially vulnerable area.

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

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

- Remediate existing wet spot in dam;

- Replace old Infrastructure by replacing CMP toe drain with PVC;
- Improve future maintenance with installation of cleanouts with toe drain system; and
- Improve Monitoring Capability with installation of piezometer.

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

This project will design and construct a more resilient conveyance system in the dam. The existing toe drain system is over 40 years old. The design life for corrugated metal pipe (CMP) is between 15 and 40 years. The pipes used for the toe drains at this facility were CMP and are past the life expectancy and in need of replacement. The project proposes to replace the CMP toe drains with PVC toe drains. In addition, the monitoring system of the dam will also be upgraded through the installation of new piezometers.

The project will be broken up into 4 phases, concept, 65%, 95% and final design. Plan deliverables will be reviewed at each design phase. It is anticipated the design will take six months. After design is complete a contractor will be selected and construction will begin, based on previous construction will take approximately one year. The project is anticipated to start design in Fiscal Year 2024.

#### 5. Work Plan

Major Tasks	Responsible Party	Timeframe	Partners
Complete Final Design for Toe Drain Repair	Consultant and County	Anticipate design completion in Summer 2024	Community
Begin Project Construction	Contractor and County	Within 3 months of design completion	Community
Complete Project Construction	Contractor and County	Within 1.5 years of Construction Notice to Proceed	Community

#### 6. Relationship to Other Projects

Fairfax County's Pohick Creek Watershed Management Plan identified the area upstream and downstream of this project for stream restoration. The Woodglen Lake Toe Drain Rehabilitation at was chosen due to the age of the facility, but the project will also benefit the downstream stream restoration project (identified as PC9247). PC9247, located inside a FEMA Special Flood Hazard Area Zone AE, is currently in design and will restore over 600 feet of degraded stream channel.

The Pohick Creek Watershed Management Plan can be found in the following link:

<https://www.fairfaxcounty.gov/publicworks/pohick-creek-watershed>

#### 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 dams. Since this project will be constructed by the county, it will be maintained by MSMD. An official post construction maintenance plan will be developed during the final design phase of the project.

## 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 Dam Safety and Facility Rehabilitation (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 repair the toe drain of the dam which will ensure proper function and ensure the structural integrity of the dam mitigating the risk of associated dam failure.*

## 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-251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-251</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="#">Virginia Flood Risk Information System (VFRISv)</a>	Attachment 8
Completed Scoring Criteria Sheet Appendix B, C, D	Included in Appendices at the end of the application
Census Block(s)	2004, 3000

## Budget Narrative

### 1. Estimated Total Project Cost

The total project cost for design and construction is \$402,000. The County has already funded \$62,000 for the survey and geophysical analysis.

**Estimated total project cost:** \$402,000

Encumbered: \$62,000

Survey and Geophysical Analysis: \$62,000

Un-Encumbered: \$340,000

Design & Construction Administration: \$40,000

Construction: \$300,000

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

### 2. Funds Requested

The County requests \$170,000 from the Fund (50% of the total project cost). This is the total amount of any grant assistance sought from the Fund. 100% of this grant will be applied to the construction or construction administration of the project.

### 3. Available Funds

Fairfax County already encumbered \$62,000 for the design task order. The County currently has \$170,000 available for the construction cost. Additional funds for the cost-share are available in Stormwater Services Dam Safety and Facility Rehabilitation 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 stormwater facilities that need major preventative maintenance. The implementation of this project will alleviate the increased potential for dam failure at this site. The project provides needed drainage improvements to the dam while enhancing monitoring and ease of maintenance of the facility. Fairfax County is therefore requesting funding support for the implementation of the project to reduce flooding threats to the downstream community.

# 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. The Department of Management and Budget continues to integrate the Countywide Strategic Plan into budget documents. For information on how the agency's program performance contributes to these goals, please see the Performance Measurement Results by Community Outcome Area. For more information on the Countywide Strategic Plan, please see [www.fairfaxcounty.gov/strategicplan/](http://www.fairfaxcounty.gov/strategicplan/). The Stormwater Services fund 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.

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

## Fund 40100: Stormwater Services

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 \$28,655,231 for staff and operational costs; \$70,747,419 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 within Fund 30010, General Construction and Contributions, provides more transparency and the carryforward of balances at year-end.

## Fund 40100: Stormwater Services

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.

### 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

## Fund 40100: Stormwater Services

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 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 the 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.

### *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-

## Fund 40100: Stormwater Services

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

## Fund 40100: Stormwater Services

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.

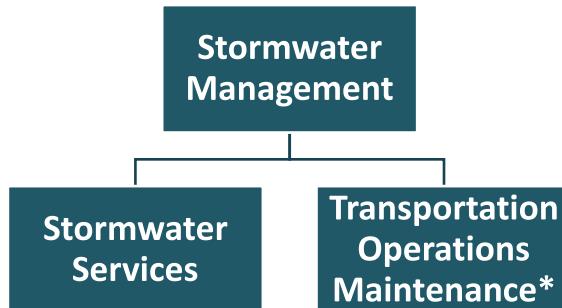
### *Stream and Water Quality Improvements*

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 \$25.6 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
<b>FUNDING</b>				
<b>Expenditures:</b>				
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636
Capital Equipment	1,519,045	652,000	1,019,268	895,000
Capital Projects	56,797,439	65,879,740	257,786,068	70,747,419
<b>Subtotal</b>	<b>\$83,313,972</b>	<b>\$95,123,010</b>	<b>\$287,772,206</b>	<b>\$101,532,605</b>
Less:				
Recovered Costs	(\$1,547,199)	(\$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>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>				
Regular	200 / 200	208 / 208	208 / 208	208 / 208

### FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 program:

**Employee Compensation** \$1,471,126  
An increase of \$1,471,126 in Personnel Services includes \$467,911 for a 2.00 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 Advertised 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>\$4,867,679</b>
Funding of \$70,747,419 in Capital Projects, an increase of \$4,867,679 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 and all other approved changes through December 31, 2022:*

<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 Detail

The FY 2024 Advertised Budget Plan includes the following positions:

STORMWATER SERVICES – 208 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 (75 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	
10 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		
<b>Stormwater Planning Division (56 positions)</b>		
1 Director, Stormwater Planning	1 Emergency Mgmt. Specialist III	
1 Engineer V	1 Planner IV	
4 Engineers IV	1 Planner III	
1 Senior Engineer III	2 Landscape Architects III	
9 Engineers III	1 Engineering Technician III	
4 Project Managers II	1 Management Analyst II	
2 Project Managers I	2 Code Specialists II	
4 Ecologists IV	1 Financial Specialist II	
5 Ecologists III	1 Financial Specialist I	
3 Ecologists II	1 Contract Specialist II	
2 Ecologists I	1 Assistant Contract Specialist	
3 Project Coordinators	3 Administrative Assistants III	
1 Public Works-Env. Serv. Manager		

Urban Forestry (16 positions)						
1	Director, Urban Forestry Division		3	Urban Foresters I		
1	Urban Forester IV		1	Project Manager I		
4	Urban Foresters III		1	Administrative Assistant II		
5	Urban Foresters II					

## 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-advertised-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
<b>Beginning Balance</b>	<b>\$90,246,043</b>	<b>\$0</b>	<b>\$192,147,379</b>	<b>\$0</b>
<b>Revenue:</b>				
Stormwater Service District Levy	\$88,017,253	\$94,393,055	\$94,393,055	\$100,802,650
Sale of Bonds <sup>1</sup>	93,376,033	0	0	0
Interest on Investments <sup>2</sup>	154,900	0	0	0
Stormwater Local Assistance Fund (SLAF) Grant <sup>3</sup>	2,967,180	0	629,613	0
Tree Preservation/Planting Fund <sup>4</sup>	30,583	0	0	0
Miscellaneous <sup>5</sup>	247,160	0	81,000	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>Total Available</b>	<b>\$275,039,152</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>
<b>Expenditures:</b>				
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636
Recovered Costs	(1,547,199)	(2,129,955)	(2,129,955)	(2,129,955)
Capital Equipment	1,519,045	652,000	1,019,268	895,000
Capital Projects <sup>6</sup>	56,797,439	65,879,740	257,786,068	70,747,419
<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>Transfers Out:</b>				
General Fund (10001) <sup>7</sup>	\$1,125,000	\$1,400,000	\$1,400,000	\$1,400,000
Land Development Services (40200) <sup>8</sup>	0	0	208,796	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>Total Disbursements</b>	<b>\$82,891,773</b>	<b>\$94,393,055</b>	<b>\$287,251,047</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>Tax Rate Per \$100 of Assessed Value</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.

## Fund 40100: Stormwater Services

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<sup>6</sup>In order to account for revenues and expenditures in the proper fiscal year, audit adjustments are reflected as an increase of \$63,612.94 to FY 2022 Capital Projects to record expenditure accruals. This impacts the amount carried forward resulting in a decrease of \$63,612.94 to the *FY 2023 Revised Budget Plan*. The projects affected by this adjustment are 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 will be 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
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000
<b>Dam Safety and Facility Rehabilitation (SD-000033)</b>	<b>68,576,104</b>	<b>5,039,029.28</b>	<b>12,188,745.52</b>	<b>11,000,000</b>
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,045,933	12,048,546.30	81,894,862.28	0
Stream and Water Quality Improvements (SD-000031)	281,332,285	17,160,729.68	86,784,775.25	25,628,760
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0
<b>Total</b>	<b>\$780,983,893</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</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.

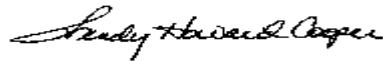
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater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

Posting Date	Earmarked F	Text	Original Amount (LC)	Amount Total (TC)	Amount Total (LC)	Funds Cente	Fund	G/L Accou	Supplier
07/20/2023	1000083383	GKY, WOOD GLEN LK DREDGE TOE DRAIN REPAIR,	62,000.00	62,000.00	62,000.00	G252901001	400-C40101	563040	1000009216

**DEPARTMENT OF PUBLIC WORKS**  
**STORMWATER PLANNING DIVISION (COST ESTIMATE)**

Date:	11/3/2023
Project Name:	Woodglen Toe Drain
Project Number:	SD-000033
Sub PN:	
Fund:	C40101 (125)

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



# 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

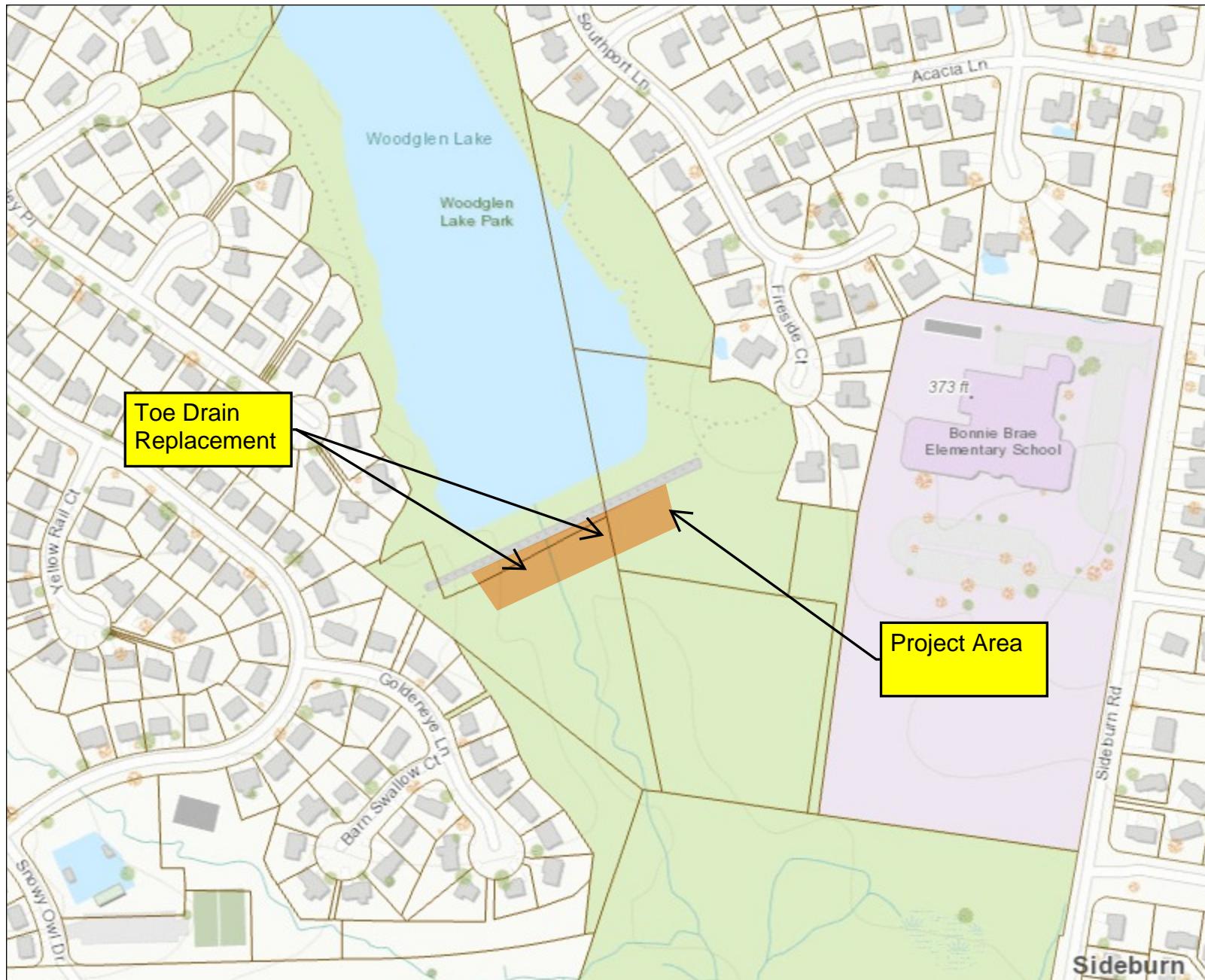
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)

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

Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division



## Woodglen Lake



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

Parcels

Project Area

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette

77°19'14"W 38°48'20"N



Basemap Imagery Source: USGS National Map 2023

## Legend

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

### SPECIAL FLOOD HAZARD AREAS

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

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

Future Conditions 1% Annual Chance Flood Hazard Zone X

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

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

20.2 Cross Sections with 1% Annual Chance

17.5 Water Surface Elevation

8 - - - Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped



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

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

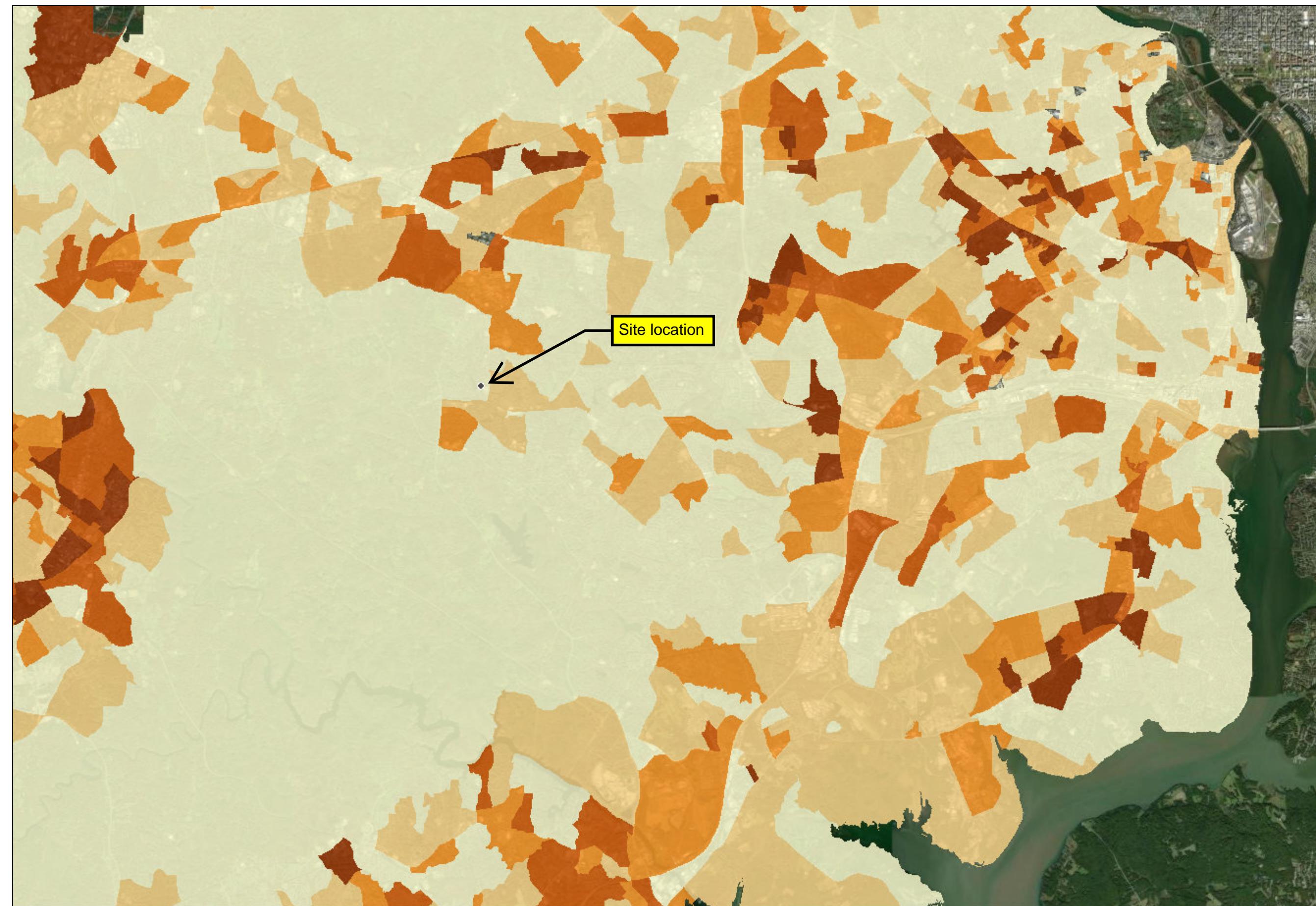
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/19/2023 at 1:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

## 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.

1:144,448  
0 1.25 2.5 5 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

---

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 Pohick Creek Watershed -

**Location of Project or Activity (Include Maps):** Fireside 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):** FEMA Zone A and Zone AE

**Flood Insurance Rate Map Number(s) (If Applicable):** 51059C0265E

**Total Cost of Project:** \$400,000

**Total Amount Requested** \$340,000

**Amount Requested as Grant** \$170,000

**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: Woodglen Lake Toe Drain Repair 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>	\$ 170,000.00
									<b>Grand Total Local Share of Project</b>	\$ 170,000.00
									<b>Federal Funding (if applicable)</b>	\$ -
									<b>Project Grand Total</b>	\$ 340,000.00 *
									<b>Locality Cost Match</b>	50%
<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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,000.00	\$ -	\$ -	\$ -	\$ 170,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,000.00	\$ -	\$ -	\$ -	\$ 170,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 340,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 340,000.00</b>

\*Unencumbered Total

## 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

---

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

## Woodglen Lake Toe Drain Repair

Virginia Community Flood Preparedness Fund

2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-4 (Woodglen Lake)



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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 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 maintain the dam embankment of Woodglen Lake in Burke within the Braddock Magisterial District. The project, *Woodglen Lake Toe Drain Repair*, is focused on replacing the inadequate toe drain system of the dam to extend the lifespan of the facility.

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.

## Scope of Work Narrative

### 1. Project Information

The Woodglen Lake Dam is located in the Burke Area of Fairfax County Virginia. The facility outfalls to Sideburn Branch, a tributary to Pohick Creek which empties into the Potomac River. The dam was built in 1981 by the National Resources Conservation Service (NRCS) as a flood control facility under the authority of Public Law 83-566. It is a compacted earth-fill dam that mitigates downstream flooding, improves water quality, wildlife habitat and provides recreational activities to the community. The dam is classified as a high hazard state regulated facility. The dam is over 30 years old; the original toe drains that were installed have deteriorated and are in need of replacement.

#### *Population*

Fairfax County has a population of about 1.17 million. The proposed project is in the Braddock Magisterial District in Fairfax. A breach of the dam would impact approximately 73 structures, including 23 single family homes, 6 businesses, 44 multifamily houses and the thousands of people that ride the Norfolk Southern Railroad.

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

This facility was built by Natural Resources Conservation Services with Public Law 566 in 1981. It was one of 6 dams that were installed in the Pohick Creek watershed to provide flood control to the watershed. The largest storm event that the dam has experienced occurred in 2008 during Tropical Storm Hanna, it received 8.4" of rainfall in 12 hours which activated the emergency spillway.

#### *Local Government Cost Share*

Construction 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 Regulatory Program Support 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 4). 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-462>

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-AE.

#### *Project Priority*

##### *Project Need*

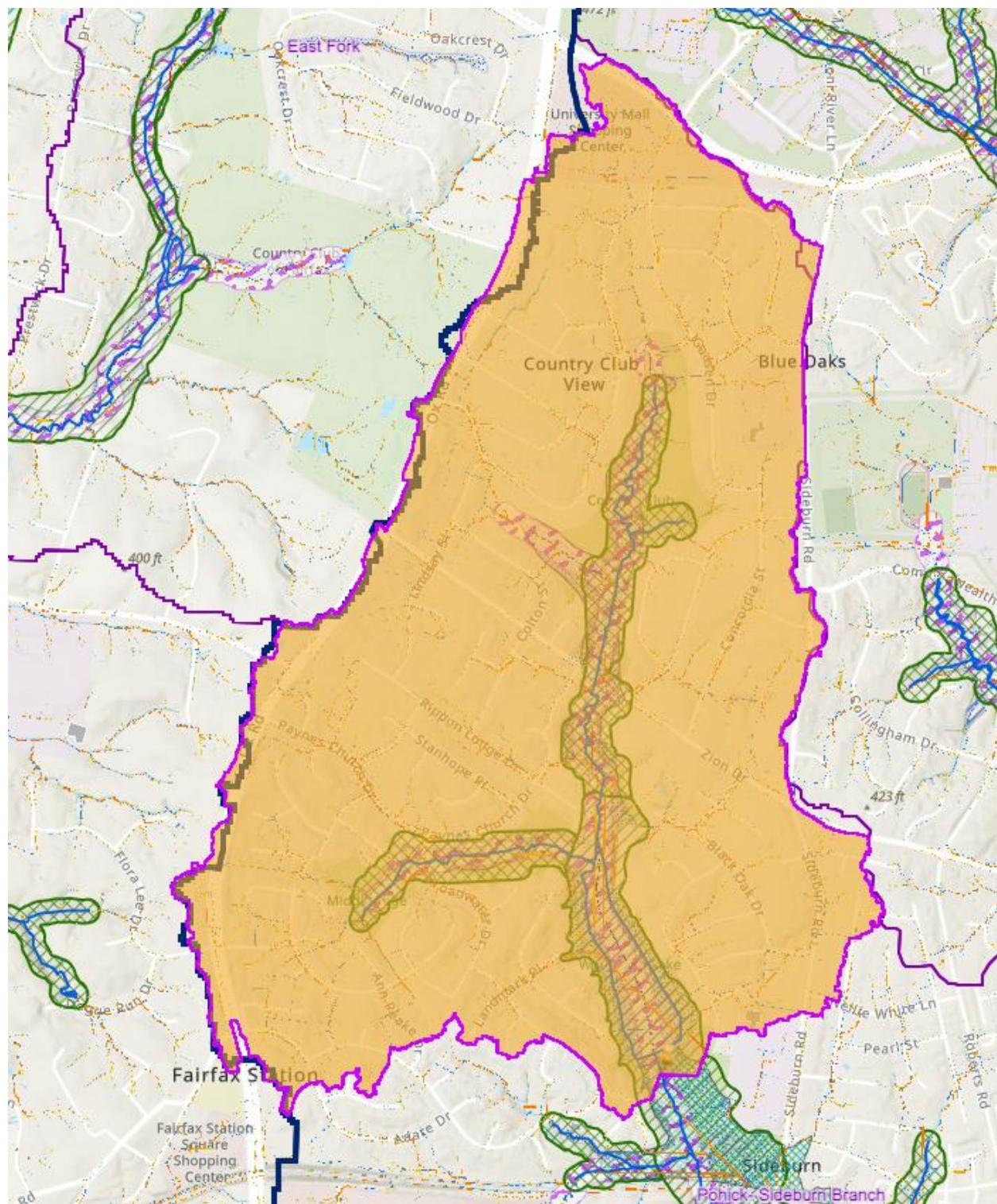
During the pre-project investigation an electrical resistivity test was performed on the dam to determine the subsurface condition of the dam. Electric resistivity detects large anomalously deep and or wet soils. It was found that the western portion of the dam located by the toe drain was more saturated and that this was due to the failure of the toe drain. The saturation of this area could lead to dam failure beginning with seepage and/or sloughing. Excerpts from the electric resistivity test are shown in Figures 1 and 2 below.

This facility receives approximately 768 acres of drainage. If the dam were to fail due to this, uncontrolled runoff would be released to the downstream area and impact residential and commercial areas and the Virginia Railway Express (VRE). The dam breach model is shown in Figure 3 Below.

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

The VRE has an average daily ridership of 6,200 people. The Burke Centre VRE station is located within the dam breach zone of Woodglen Lake. During a breach event, the VRE station would be under 6-9' of water.

Map 1: Project Drainage



Map 2: Woodglen Lake Toe Drain Rehabilitation location



Figure 1: Electric Resistivity Testing Grid

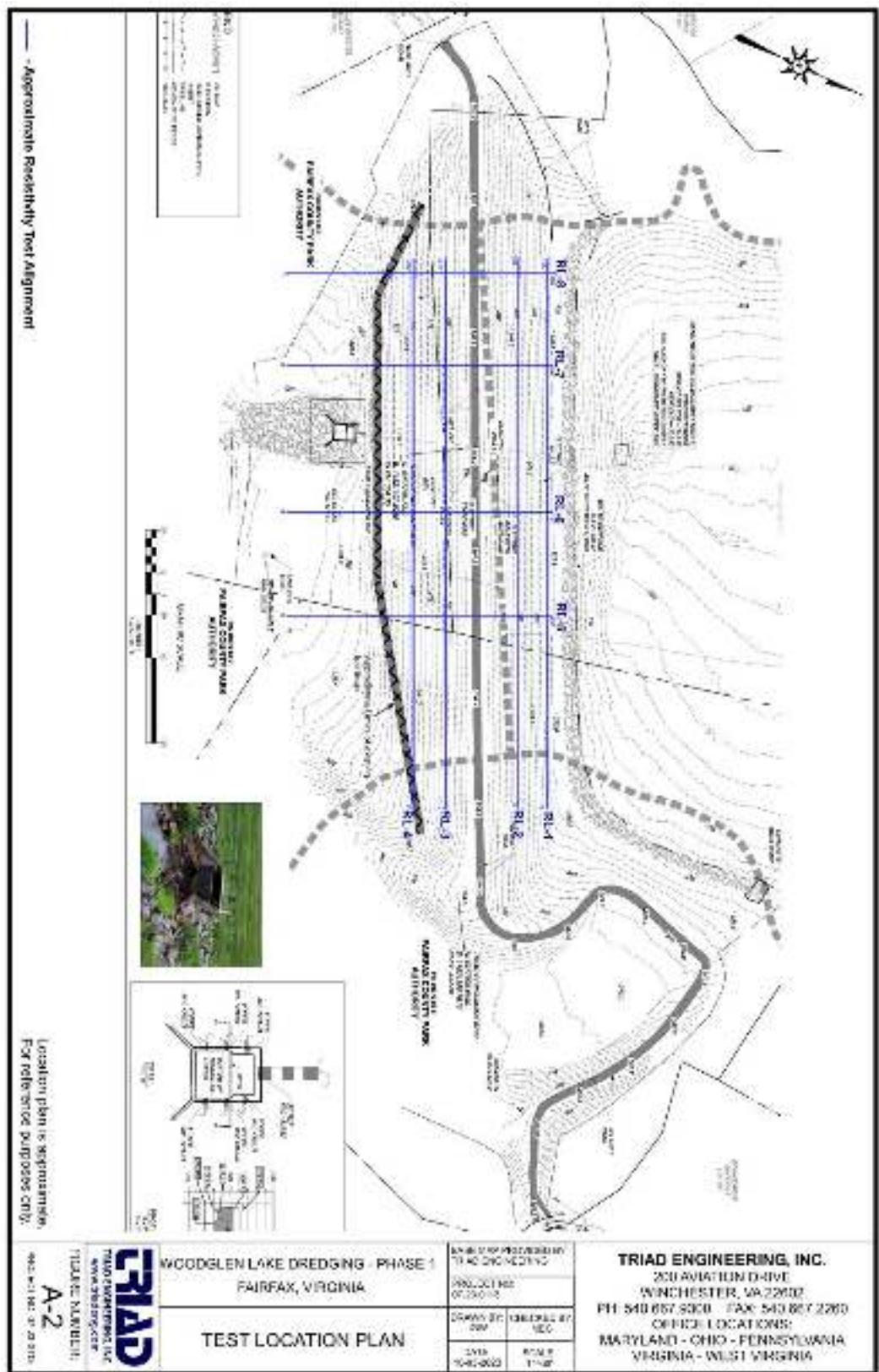


Figure 2: Electric Resistivity Section

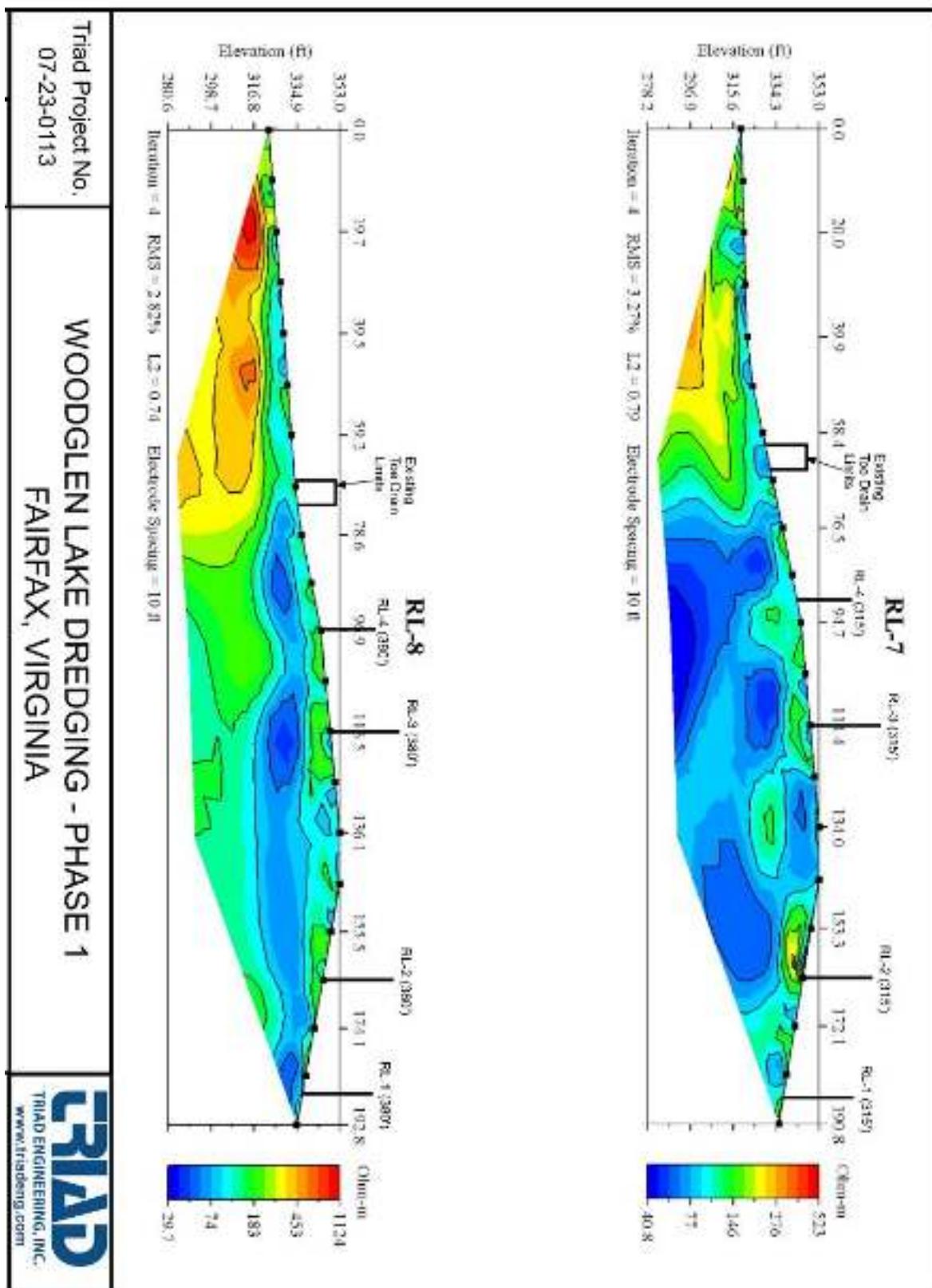
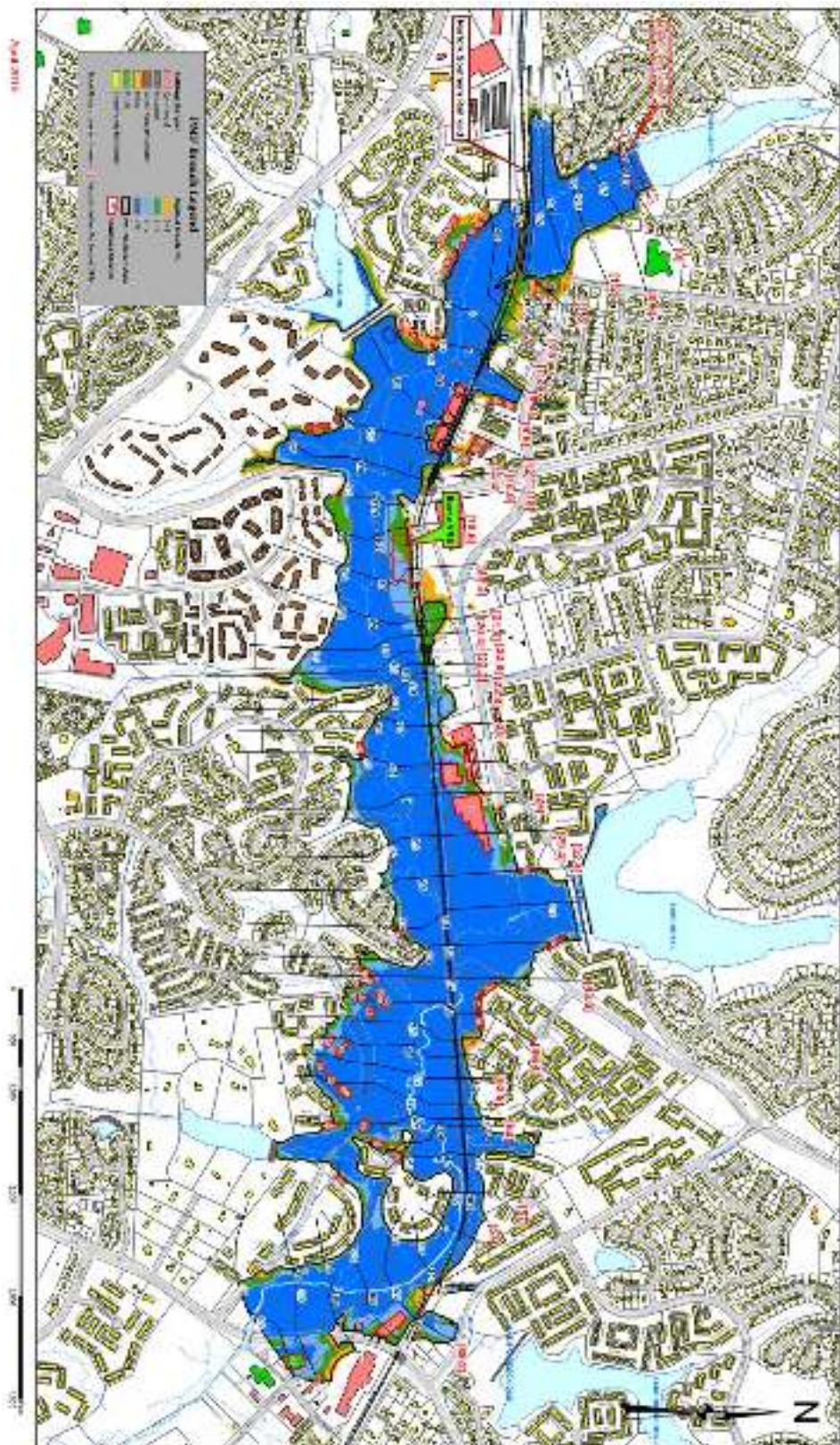


Figure 3: Dam Breach Model



**Woodglen Lake (Dam Site No. 3)**  
Overtopping Breach Zone [PMF]  
Depths, Travel Times, and Velocities

Figure 4: NFIP and CRS participation



## 2. Need for Assistance

### *Financial and Staff Resources*

The Stormwater Services Dam Safety and Facility Rehabilitation program supports the maintenance and flood monitoring detection of our existing stormwater dams. The program provides annual funding for scoping, design, and construction activities related to dam safety projects. Fairfax County's adopted Fiscal Year 2024 Stormwater Services budget includes \$11.0 million for Dam Safety and Facility Rehabilitation projects (see Figure 5), but the estimated need for these types of projects is significantly more. With the age of the county's dam inventory and the increase in the frequency and intensity of storms due to climate change, we expect the number of facility rehabilitation projects to grow, and the associated project design and construction costs will extend well beyond what the county's current dam safety and facility rehabilitation program can support.

*Figure 5. Fiscal Year 2024 Adopted Budget- Stormwater Services Summary of Capital Projects*

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-020-000)	16,725,000	1,643,450.33	5,090,929.66	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	11,770,027.96	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	20,389,881.87	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	2,480,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-C07-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoneechee 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 Profilers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,063,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,548.30	82,119,962.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,626,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,978	600,097.34	1,306,486.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>

#### *Low Income Geographic Areas*

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

#### *Vulnerability Index*

Based on the Vulnerability Index Map (Attachment 8), the project is not in a socially vulnerable area.

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

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

- Remediate existing wet spot in dam;

- Replace old Infrastructure by replacing CMP toe drain with PVC;
- Improve future maintenance with installation of cleanouts with toe drain system; and
- Improve Monitoring Capability with installation of piezometer.

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

This project will design and construct a more resilient conveyance system in the dam. The existing toe drain system is over 40 years old. The design life for corrugated metal pipe (CMP) is between 15 and 40 years. The pipes used for the toe drains at this facility were CMP and are past the life expectancy and in need of replacement. The project proposes to replace the CMP toe drains with PVC toe drains. In addition, the monitoring system of the dam will also be upgraded through the installation of new piezometers.

The project will be broken up into 4 phases, concept, 65%, 95% and final design. Plan deliverables will be reviewed at each design phase. It is anticipated the design will take six months. After design is complete a contractor will be selected and construction will begin, based on previous construction will take approximately one year. The project is anticipated to start design in Fiscal Year 2024.

#### 5. Work Plan

Major Tasks	Responsible Party	Timeframe	Partners
Complete Final Design for Toe Drain Repair	Consultant and County	Anticipate design completion in Summer 2024	Community
Begin Project Construction	Contractor and County	Within 3 months of design completion	Community
Complete Project Construction	Contractor and County	Within 1.5 years of Construction Notice to Proceed	Community

#### 6. Relationship to Other Projects

Fairfax County's Pohick Creek Watershed Management Plan identified the area upstream and downstream of this project for stream restoration. The Woodglen Lake Toe Drain Rehabilitation at was chosen due to the age of the facility, but the project will also benefit the downstream stream restoration project (identified as PC9247). PC9247, located inside a FEMA Special Flood Hazard Area Zone AE, is currently in design and will restore over 600 feet of degraded stream channel.

The Pohick Creek Watershed Management Plan can be found in the following link:

<https://www.fairfaxcounty.gov/publicworks/pohick-creek-watershed>

#### 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 dams. Since this project will be constructed by the county, it will be maintained by MSMD. An official post construction maintenance plan will be developed during the final design phase of the project.

## 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 Dam Safety and Facility Rehabilitation (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 repair the toe drain of the dam which will ensure proper function and ensure the structural integrity of the dam mitigating the risk of associated dam failure.*

## 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-251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-251</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="#">Virginia Flood Risk Information System (VFRISv)</a>	Attachment 8
Completed Scoring Criteria Sheet Appendix B, C, D	Included in Appendices at the end of the application
Census Block(s)	2004, 3000

## Budget Narrative

### 1. Estimated Total Project Cost

The total project cost for design and construction is \$402,000. The County has already funded \$62,000 for the survey and geophysical analysis.

**Estimated total project cost:** \$402,000

Encumbered: \$62,000

Survey and Geophysical Analysis: \$62,000

Un-Encumbered: \$340,000

Design & Construction Administration: \$40,000

Construction: \$300,000

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

### 2. Funds Requested

The County requests \$170,000 from the Fund (50% of the total project cost). This is the total amount of any grant assistance sought from the Fund. 100% of this grant will be applied to the construction or construction administration of the project.

### 3. Available Funds

Fairfax County already encumbered \$62,000 for the design task order. The County currently has \$170,000 available for the construction cost. Additional funds for the cost-share are available in Stormwater Services Dam Safety and Facility Rehabilitation 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 stormwater facilities that need major preventative maintenance. The implementation of this project will alleviate the increased potential for dam failure at this site. The project provides needed drainage improvements to the dam while enhancing monitoring and ease of maintenance of the facility. Fairfax County is therefore requesting funding support for the implementation of the project to reduce flooding threats to the downstream community.

# 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. The Department of Management and Budget continues to integrate the Countywide Strategic Plan into budget documents. For information on how the agency's program performance contributes to these goals, please see the Performance Measurement Results by Community Outcome Area. For more information on the Countywide Strategic Plan, please see [www.fairfaxcounty.gov/strategicplan/](http://www.fairfaxcounty.gov/strategicplan/). The Stormwater Services fund 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.

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

## Fund 40100: Stormwater Services

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 \$28,655,231 for staff and operational costs; \$70,747,419 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 within Fund 30010, General Construction and Contributions, provides more transparency and the carryforward of balances at year-end.

## Fund 40100: Stormwater Services

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.

### 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

## Fund 40100: Stormwater Services

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 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 the 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.

### *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-

## Fund 40100: Stormwater Services

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

## Fund 40100: Stormwater Services

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.

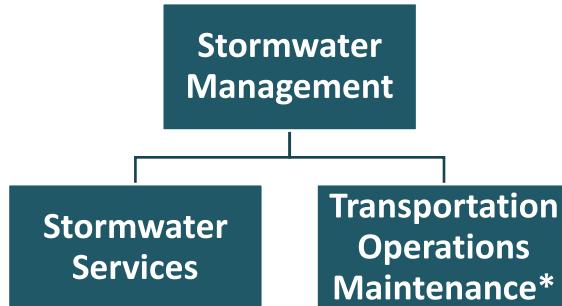
### *Stream and Water Quality Improvements*

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 \$25.6 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
<b>FUNDING</b>				
<b>Expenditures:</b>				
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636
Capital Equipment	1,519,045	652,000	1,019,268	895,000
Capital Projects	56,797,439	65,879,740	257,786,068	70,747,419
<b>Subtotal</b>	<b>\$83,313,972</b>	<b>\$95,123,010</b>	<b>\$287,772,206</b>	<b>\$101,532,605</b>
Less:				
Recovered Costs	(\$1,547,199)	(\$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>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>				
Regular	200 / 200	208 / 208	208 / 208	208 / 208

### FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 program:

**Employee Compensation** \$1,471,126  
An increase of \$1,471,126 in Personnel Services includes \$467,911 for a 2.00 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 Advertised 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>\$4,867,679</b>
Funding of \$70,747,419 in Capital Projects, an increase of \$4,867,679 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 and all other approved changes through December 31, 2022:*

<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 Detail

The FY 2024 Advertised Budget Plan includes the following positions:

STORMWATER SERVICES – 208 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 (75 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	
10 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		
<b>Stormwater Planning Division (56 positions)</b>		
1 Director, Stormwater Planning	1 Emergency Mgmt. Specialist III	
1 Engineer V	1 Planner IV	
4 Engineers IV	1 Planner III	
1 Senior Engineer III	2 Landscape Architects III	
9 Engineers III	1 Engineering Technician III	
4 Project Managers II	1 Management Analyst II	
2 Project Managers I	2 Code Specialists II	
4 Ecologists IV	1 Financial Specialist II	
5 Ecologists III	1 Financial Specialist I	
3 Ecologists II	1 Contract Specialist II	
2 Ecologists I	1 Assistant Contract Specialist	
3 Project Coordinators	3 Administrative Assistants III	
1 Public Works-Env. Serv. Manager		

Urban Forestry (16 positions)						
1	Director, Urban Forestry Division		3	Urban Foresters I		
1	Urban Forester IV		1	Project Manager I		
4	Urban Foresters III		1	Administrative Assistant II		
5	Urban Foresters II					

## 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-advertised-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
<b>Beginning Balance</b>	<b>\$90,246,043</b>	<b>\$0</b>	<b>\$192,147,379</b>	<b>\$0</b>
<b>Revenue:</b>				
Stormwater Service District Levy	\$88,017,253	\$94,393,055	\$94,393,055	\$100,802,650
Sale of Bonds <sup>1</sup>	93,376,033	0	0	0
Interest on Investments <sup>2</sup>	154,900	0	0	0
Stormwater Local Assistance Fund (SLAF) Grant <sup>3</sup>	2,967,180	0	629,613	0
Tree Preservation/Planting Fund <sup>4</sup>	30,583	0	0	0
Miscellaneous <sup>5</sup>	247,160	0	81,000	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>Total Available</b>	<b>\$275,039,152</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>
<b>Expenditures:</b>				
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636
Recovered Costs	(1,547,199)	(2,129,955)	(2,129,955)	(2,129,955)
Capital Equipment	1,519,045	652,000	1,019,268	895,000
Capital Projects <sup>6</sup>	56,797,439	65,879,740	257,786,068	70,747,419
<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>Transfers Out:</b>				
General Fund (10001) <sup>7</sup>	\$1,125,000	\$1,400,000	\$1,400,000	\$1,400,000
Land Development Services (40200) <sup>8</sup>	0	0	208,796	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>Total Disbursements</b>	<b>\$82,891,773</b>	<b>\$94,393,055</b>	<b>\$287,251,047</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>Tax Rate Per \$100 of Assessed Value</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.

## Fund 40100: Stormwater Services

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<sup>6</sup>In order to account for revenues and expenditures in the proper fiscal year, audit adjustments are reflected as an increase of \$63,612.94 to FY 2022 Capital Projects to record expenditure accruals. This impacts the amount carried forward resulting in a decrease of \$63,612.94 to the *FY 2023 Revised Budget Plan*. The projects affected by this adjustment are 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 will be 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
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000
<b>Dam Safety and Facility Rehabilitation (SD-000033)</b>	<b>68,576,104</b>	<b>5,039,029.28</b>	<b>12,188,745.52</b>	<b>11,000,000</b>
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,045,933	12,048,546.30	81,894,862.28	0
Stream and Water Quality Improvements (SD-000031)	281,332,285	17,160,729.68	86,784,775.25	25,628,760
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0
<b>Total</b>	<b>\$780,983,893</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</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*

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*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.

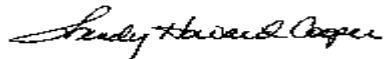
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater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

Posting Date	Earmarked F	Text	Original Amount (LC)	Amount Total (TC)	Amount Total (LC)	Funds Cente	Fund	G/L Accou	Supplier
07/20/2023	1000083383	GKY, WOOD GLEN LK DREDGE TOE DRAIN REPAIR,	62,000.00	62,000.00	62,000.00	G252901001	400-C40101	563040	1000009216

**DEPARTMENT OF PUBLIC WORKS**  
**STORMWATER PLANNING DIVISION (COST ESTIMATE)**

Date:	11/3/2023
Project Name:	Woodglen Toe Drain
Project Number:	SD-000033
Sub PN:	
Fund:	C40101 (125)

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



# 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

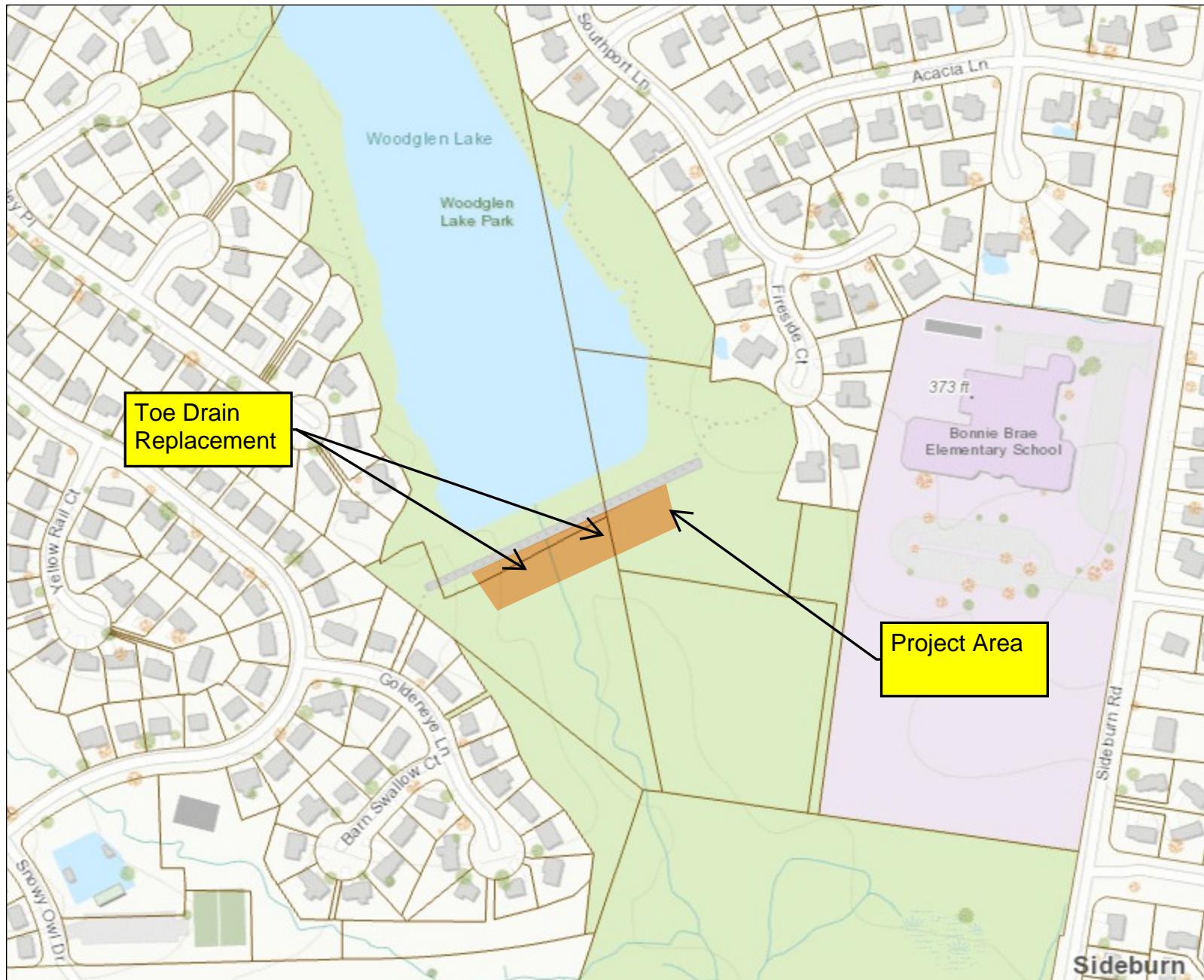
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)

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

Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division



## Woodglen Lake



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

Parcels

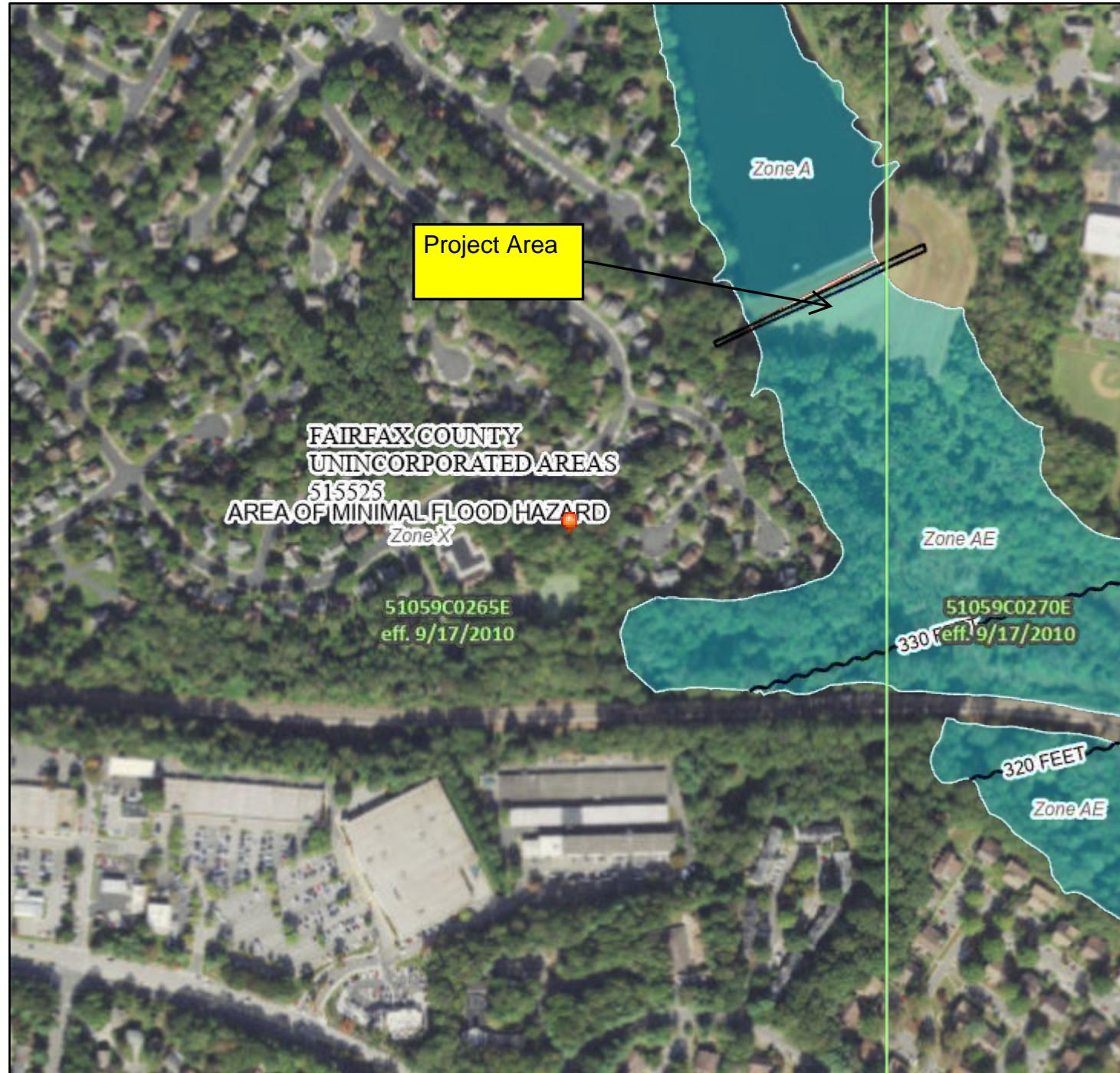
Project Area

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette

77°19'14"W 38°48'20"N



Basemap Imagery Source: USGS National Map 2023

## Legend

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

**SPECIAL FLOOD HAZARD AREAS**

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

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

Future Conditions 1% Annual Chance Flood Hazard Zone X

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

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

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

8 - - - Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped



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

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

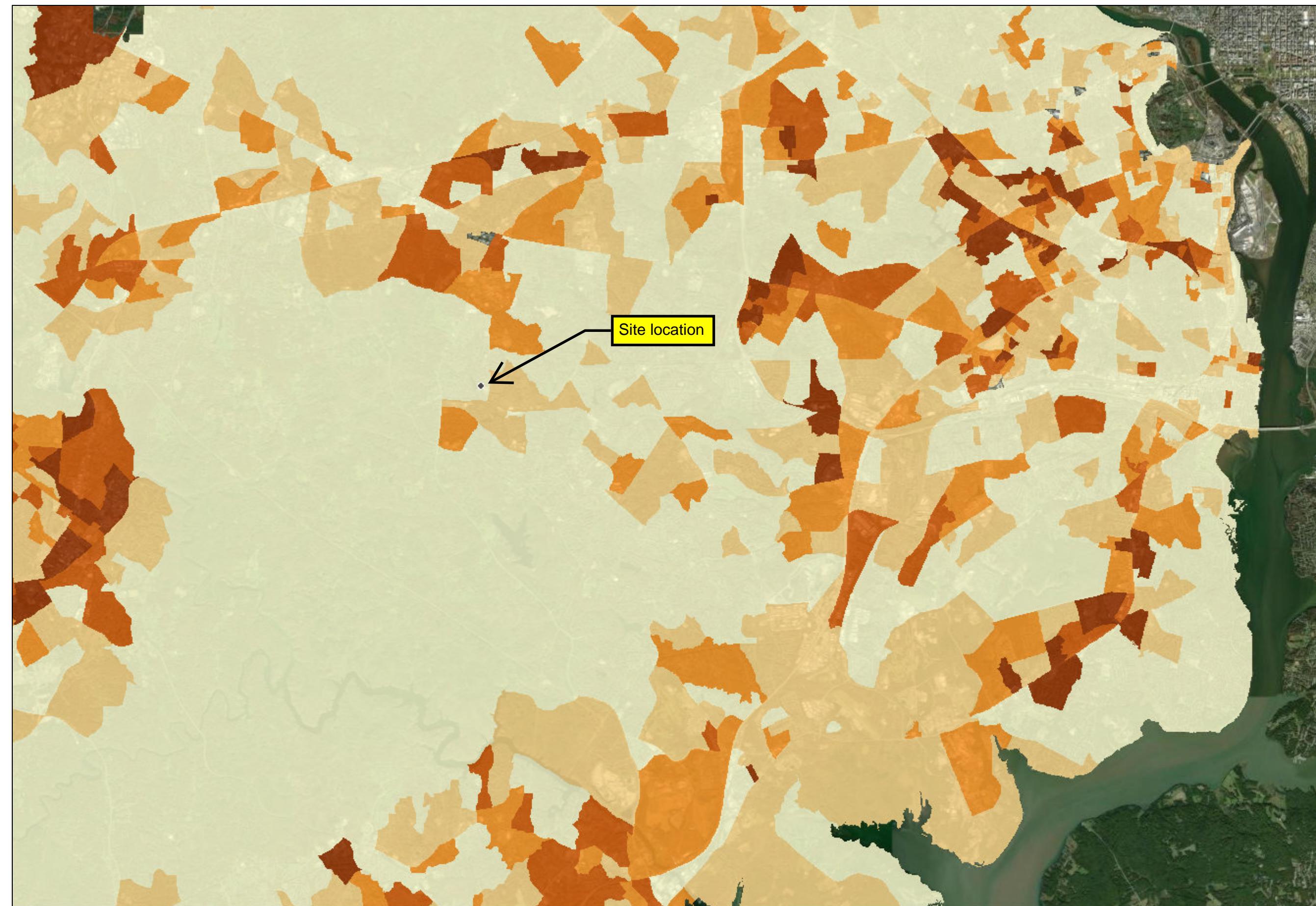
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/19/2023 at 1:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

## 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.

1:144,448  
0 1.25 2.5 5 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

---

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 Pohick Creek Watershed -

**Location of Project or Activity (Include Maps):** Fireside 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):** FEMA Zone A and Zone AE

**Flood Insurance Rate Map Number(s) (If Applicable):** 51059C0265E

**Total Cost of Project:** \$400,000

**Total Amount Requested** \$340,000

**Amount Requested as Grant** \$170,000

**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: Woodglen Lake Toe Drain Repair 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>	\$ 170,000.00
									<b>Grand Total Local Share of Project</b>	\$ 170,000.00
									<b>Federal Funding (if applicable)</b>	\$ -
									<b>Project Grand Total</b>	\$ 340,000.00 *
									<b>Locality Cost Match</b>	50%
<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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,000.00	\$ -	\$ -	\$ -	\$ 170,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,000.00	\$ -	\$ -	\$ -	\$ 170,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 340,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 340,000.00</b>

\*Unencumbered Total

## 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

---

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

## Woodglen Lake Toe Drain Repair

Virginia Community Flood Preparedness Fund

2023 ROUND 4 GRANT APPLICATION

CID515525\_FairfaxCounty\_CFPF-4 (Woodglen Lake)



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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 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 maintain the dam embankment of Woodglen Lake in Burke within the Braddock Magisterial District. The project, *Woodglen Lake Toe Drain Repair*, is focused on replacing the inadequate toe drain system of the dam to extend the lifespan of the facility.

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.

## Scope of Work Narrative

### 1. Project Information

The Woodglen Lake Dam is located in the Burke Area of Fairfax County Virginia. The facility outfalls to Sideburn Branch, a tributary to Pohick Creek which empties into the Potomac River. The dam was built in 1981 by the National Resources Conservation Service (NRCS) as a flood control facility under the authority of Public Law 83-566. It is a compacted earth-fill dam that mitigates downstream flooding, improves water quality, wildlife habitat and provides recreational activities to the community. The dam is classified as a high hazard state regulated facility. The dam is over 30 years old; the original toe drains that were installed have deteriorated and are in need of replacement.

#### *Population*

Fairfax County has a population of about 1.17 million. The proposed project is in the Braddock Magisterial District in Fairfax. A breach of the dam would impact approximately 73 structures, including 23 single family homes, 6 businesses, 44 multifamily houses and the thousands of people that ride the Norfolk Southern Railroad.

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

This facility was built by Natural Resources Conservation Services with Public Law 566 in 1981. It was one of 6 dams that were installed in the Pohick Creek watershed to provide flood control to the watershed. The largest storm event that the dam has experienced occurred in 2008 during Tropical Storm Hanna, it received 8.4" of rainfall in 12 hours which activated the emergency spillway.

#### *Local Government Cost Share*

Construction 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 Regulatory Program Support 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 4). 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-462>

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-AE.

#### *Project Priority*

##### *Project Need*

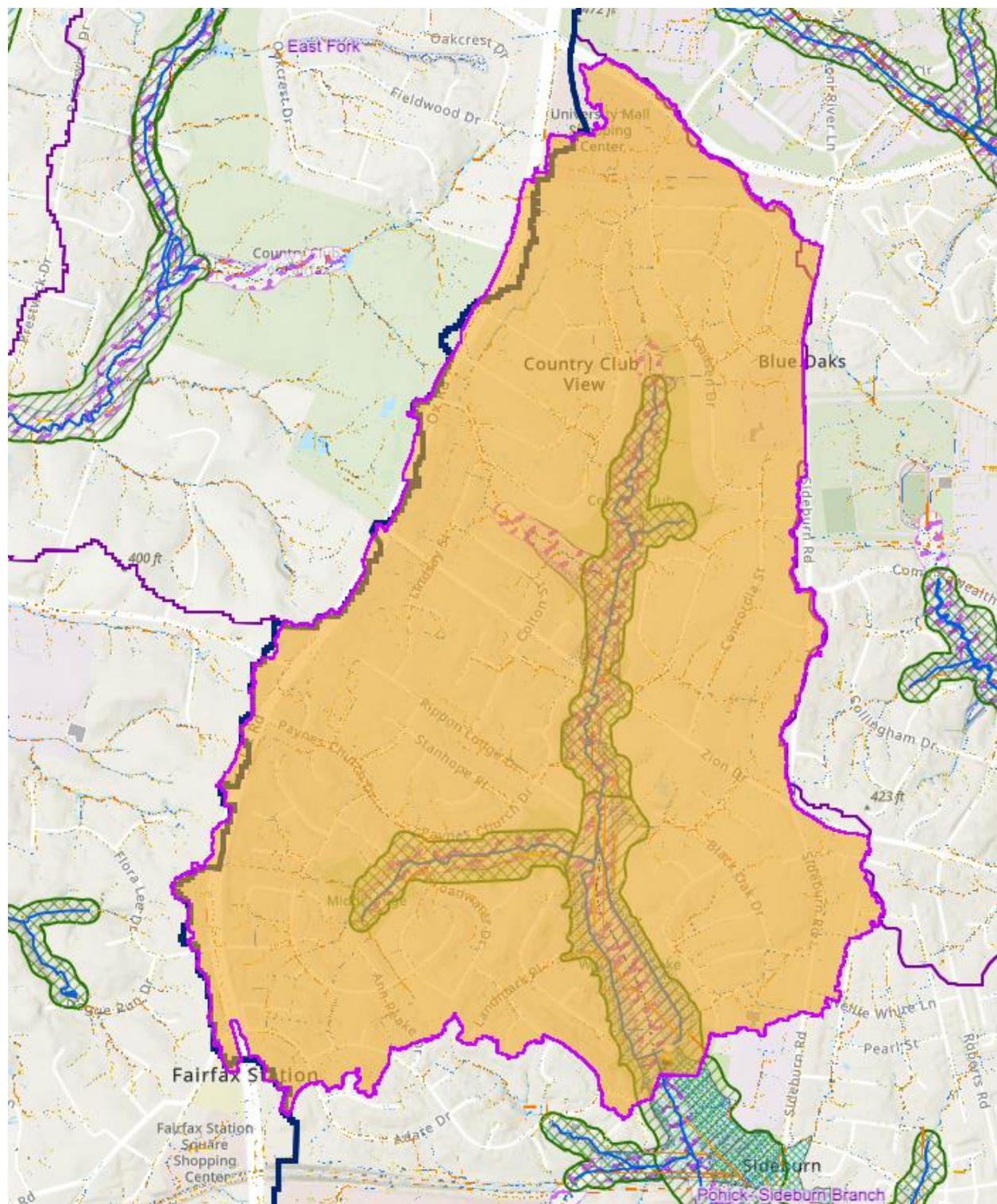
During the pre-project investigation an electrical resistivity test was performed on the dam to determine the subsurface condition of the dam. Electric resistivity detects large anomalously deep and or wet soils. It was found that the western portion of the dam located by the toe drain was more saturated and that this was due to the failure of the toe drain. The saturation of this area could lead to dam failure beginning with seepage and/or sloughing. Excerpts from the electric resistivity test are shown in Figures 1 and 2 below.

This facility receives approximately 768 acres of drainage. If the dam were to fail due to this, uncontrolled runoff would be released to the downstream area and impact residential and commercial areas and the Virginia Railway Express (VRE). The dam breach model is shown in Figure 3 Below.

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

The VRE has an average daily ridership of 6,200 people. The Burke Centre VRE station is located within the dam breach zone of Woodglen Lake. During a breach event, the VRE station would be under 6-9' of water.

Map 1: Project Drainage



Map 2: Woodglen Lake Toe Drain Rehabilitation location

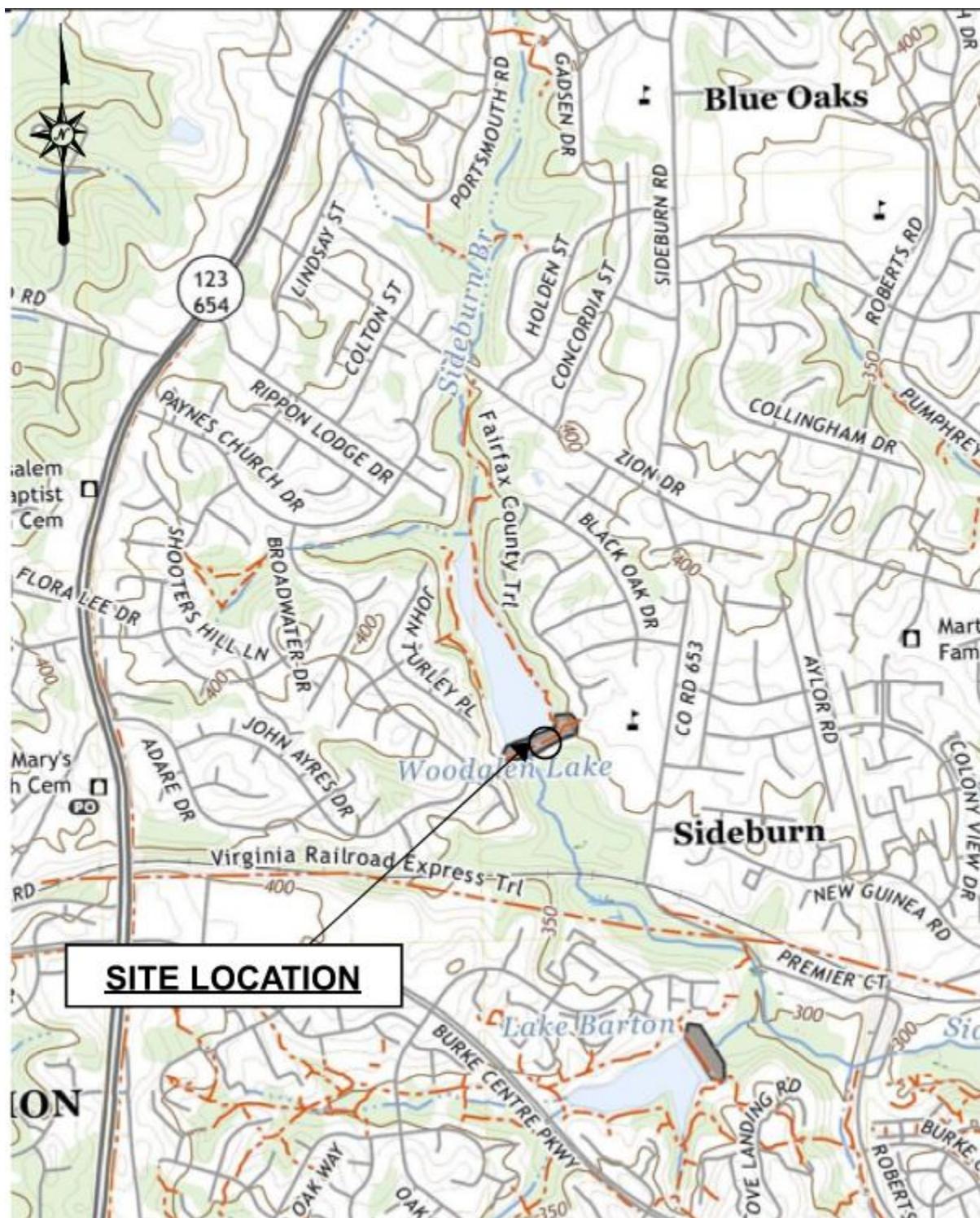


Figure 1: Electric Resistivity Testing Grid

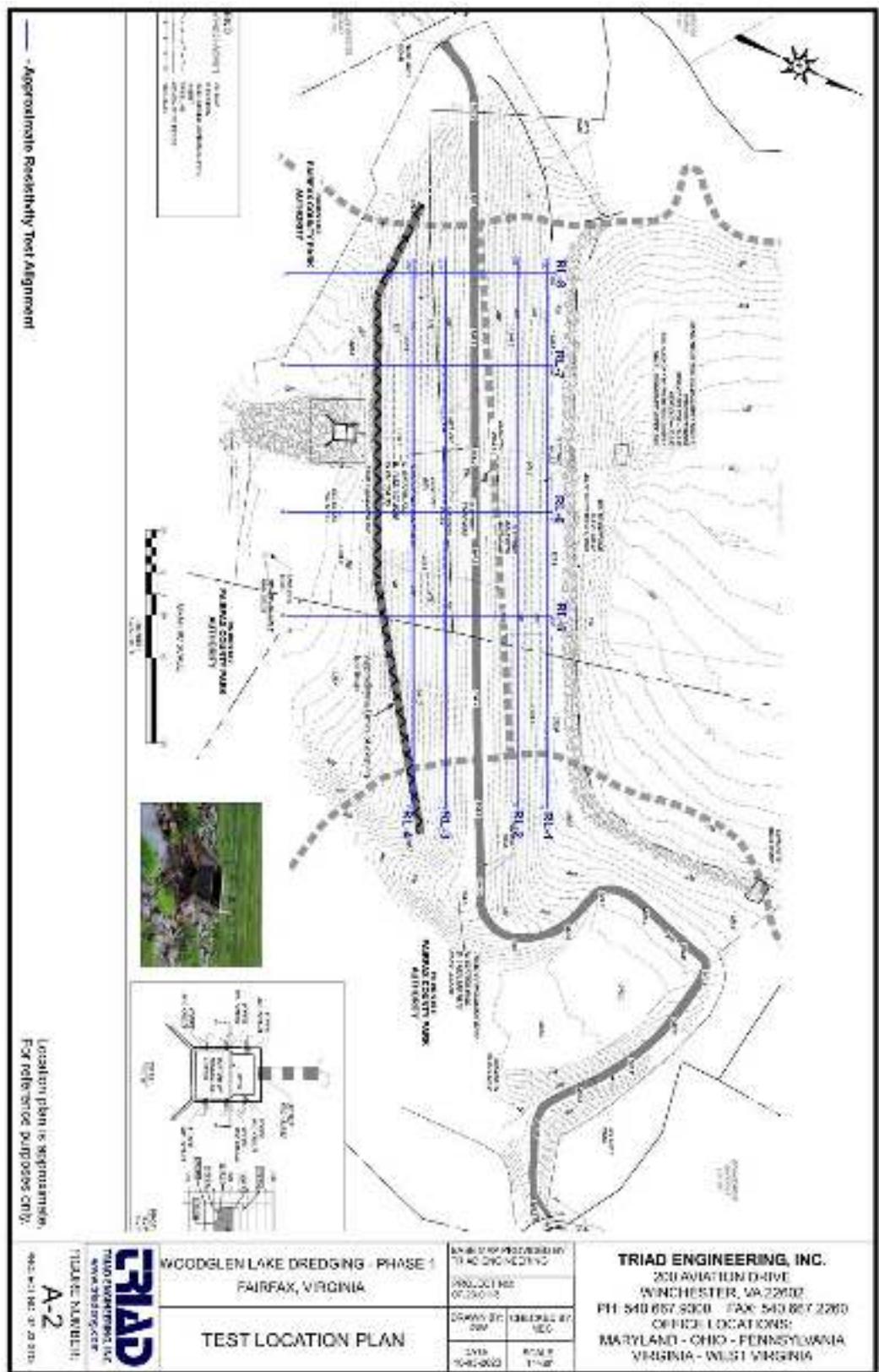


Figure 2: Electric Resistivity Section

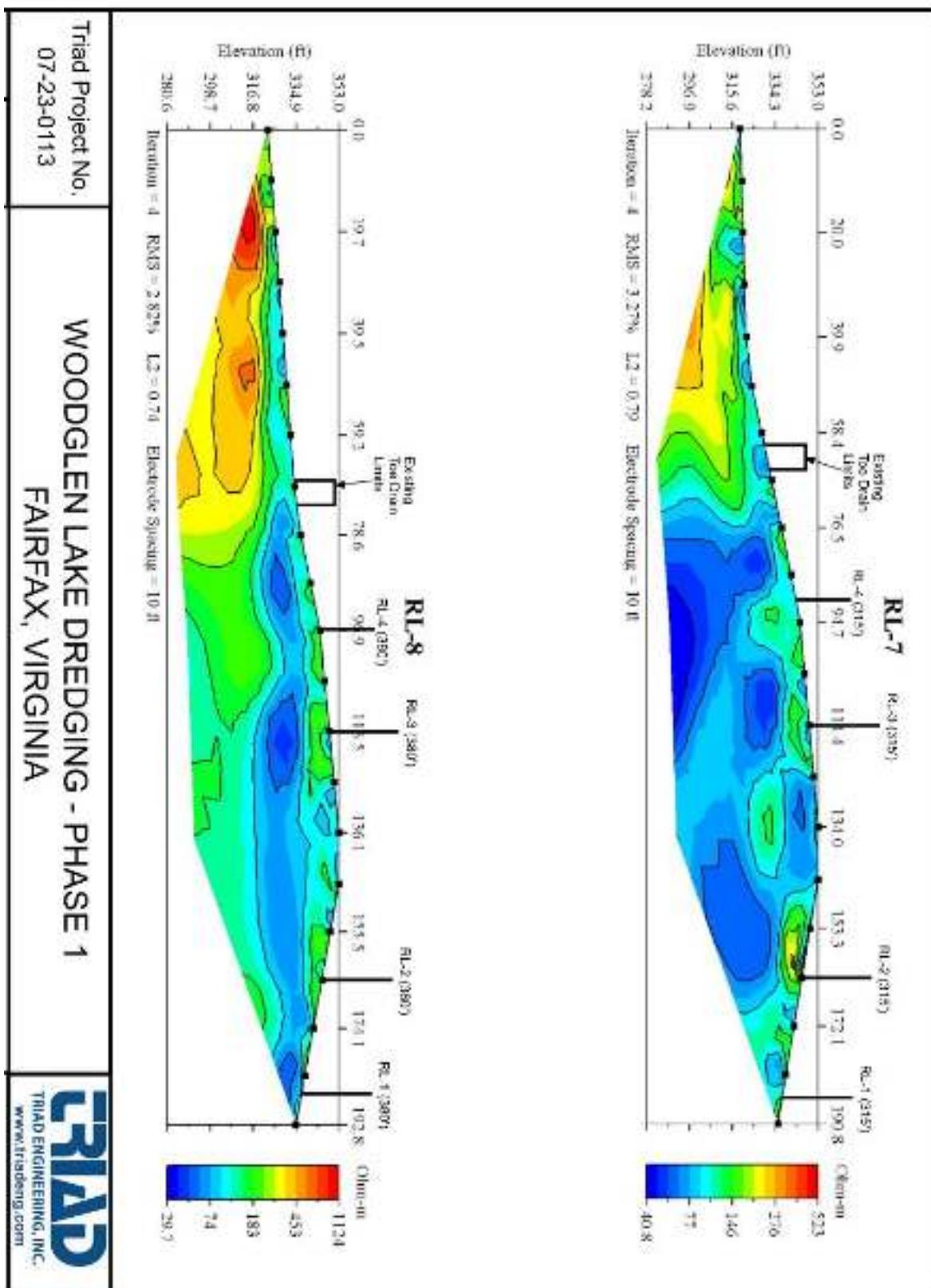
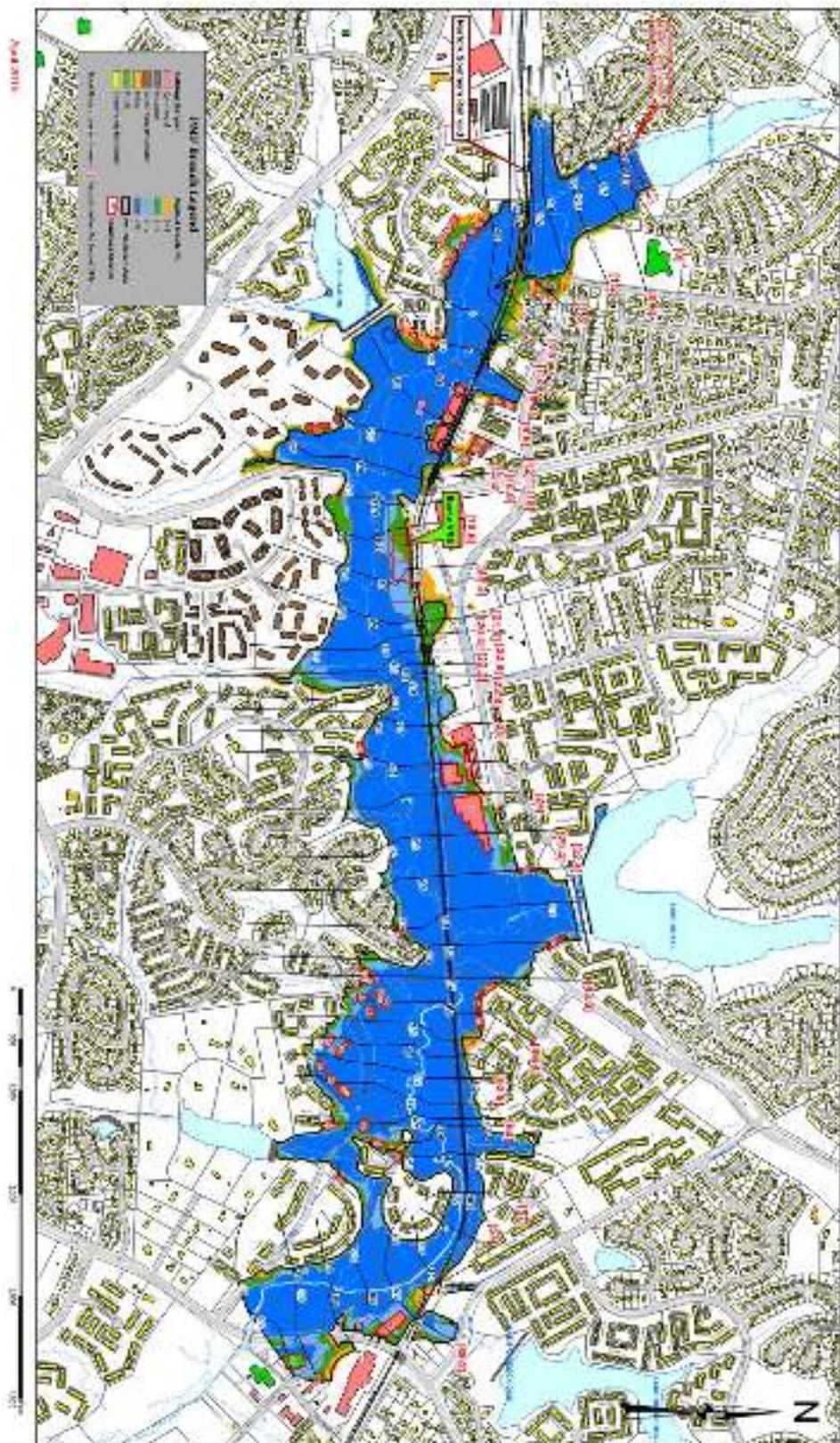


Figure 3: Dam Breach Model



**Woodglen Lake (Dam Site No. 3)**  
Overtopping Breach Zone [PMF]  
Depths, Travel Times, and Velocities

Figure 4: NFIP and CRS participation



## 2. Need for Assistance

### *Financial and Staff Resources*

The Stormwater Services Dam Safety and Facility Rehabilitation program supports the maintenance and flood monitoring detection of our existing stormwater dams. The program provides annual funding for scoping, design, and construction activities related to dam safety projects. Fairfax County's adopted Fiscal Year 2024 Stormwater Services budget includes \$11.0 million for Dam Safety and Facility Rehabilitation projects (see Figure 5), but the estimated need for these types of projects is significantly more. With the age of the county's dam inventory and the increase in the frequency and intensity of storms due to climate change, we expect the number of facility rehabilitation projects to grow, and the associated project design and construction costs will extend well beyond what the county's current dam safety and facility rehabilitation program can support.

*Figure 5. Fiscal Year 2024 Adopted Budget- Stormwater Services Summary of Capital Projects*

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000	\$250,000
Conveyance System Inspection/Development (2G25-020-000)	16,725,000	1,643,450.33	5,090,929.66	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	11,770,027.96	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	20,389,881.87	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	2,480,742.22	0	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0	0
NVSWCD Contributory (2G25-C07-000)	7,139,388	554,811.00	609,346.00	609,346	609,346
Occoneechee 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 Profilers (2G25-032-000)	56,500	2,500.00	54,000.01	0	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,063,566.07	8,337,212.29	4,000,000	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,270,933	12,048,548.30	82,119,962.28	0	0
Stream and Water Quality Improvements (SD-000031)	280,302,473	17,160,729.68	86,559,775.25	25,626,760	24,823,948
Towns Grant Contribution (2G25-029-000)	5,805,978	600,097.34	1,306,486.83	0	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0	0
<b>Total</b>	<b>\$780,179,081</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</b>	<b>\$69,942,607</b>

#### *Low Income Geographic Areas*

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

#### *Vulnerability Index*

Based on the Vulnerability Index Map (Attachment 8), the project is not in a socially vulnerable area.

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

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

- Remediate existing wet spot in dam;

- Replace old Infrastructure by replacing CMP toe drain with PVC;
- Improve future maintenance with installation of cleanouts with toe drain system; and
- Improve Monitoring Capability with installation of piezometer.

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

This project will design and construct a more resilient conveyance system in the dam. The existing toe drain system is over 40 years old. The design life for corrugated metal pipe (CMP) is between 15 and 40 years. The pipes used for the toe drains at this facility were CMP and are past the life expectancy and in need of replacement. The project proposes to replace the CMP toe drains with PVC toe drains. In addition, the monitoring system of the dam will also be upgraded through the installation of new piezometers.

The project will be broken up into 4 phases, concept, 65%, 95% and final design. Plan deliverables will be reviewed at each design phase. It is anticipated the design will take six months. After design is complete a contractor will be selected and construction will begin, based on previous construction will take approximately one year. The project is anticipated to start design in Fiscal Year 2024.

#### 5. Work Plan

Major Tasks	Responsible Party	Timeframe	Partners
Complete Final Design for Toe Drain Repair	Consultant and County	Anticipate design completion in Summer 2024	Community
Begin Project Construction	Contractor and County	Within 3 months of design completion	Community
Complete Project Construction	Contractor and County	Within 1.5 years of Construction Notice to Proceed	Community

#### 6. Relationship to Other Projects

Fairfax County's Pohick Creek Watershed Management Plan identified the area upstream and downstream of this project for stream restoration. The Woodglen Lake Toe Drain Rehabilitation at was chosen due to the age of the facility, but the project will also benefit the downstream stream restoration project (identified as PC9247). PC9247, located inside a FEMA Special Flood Hazard Area Zone AE, is currently in design and will restore over 600 feet of degraded stream channel.

The Pohick Creek Watershed Management Plan can be found in the following link:

<https://www.fairfaxcounty.gov/publicworks/pohick-creek-watershed>

#### 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 dams. Since this project will be constructed by the county, it will be maintained by MSMD. An official post construction maintenance plan will be developed during the final design phase of the project.

## 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 Dam Safety and Facility Rehabilitation (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 repair the toe drain of the dam which will ensure proper function and ensure the structural integrity of the dam mitigating the risk of associated dam failure.*

## 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-251">https://online.encodeplus.com/regs/fairfaxcounty-va/doc-viewer.aspx#secid-251</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="#">Virginia Flood Risk Information System (VFRISv)</a>	Attachment 8
Completed Scoring Criteria Sheet Appendix B, C, D	Included in Appendices at the end of the application
Census Block(s)	2004, 3000

## Budget Narrative

### 1. Estimated Total Project Cost

The total project cost for design and construction is \$402,000. The County has already funded \$62,000 for the survey and geophysical analysis.

**Estimated total project cost:** \$402,000

Encumbered: \$62,000

Survey and Geophysical Analysis: \$62,000

Un-Encumbered: \$340,000

Design & Construction Administration: \$40,000

Construction: \$300,000

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

### 2. Funds Requested

The County requests \$170,000 from the Fund (50% of the total project cost). This is the total amount of any grant assistance sought from the Fund. 100% of this grant will be applied to the construction or construction administration of the project.

### 3. Available Funds

Fairfax County already encumbered \$62,000 for the design task order. The County currently has \$170,000 available for the construction cost. Additional funds for the cost-share are available in Stormwater Services Dam Safety and Facility Rehabilitation 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 stormwater facilities that need major preventative maintenance. The implementation of this project will alleviate the increased potential for dam failure at this site. The project provides needed drainage improvements to the dam while enhancing monitoring and ease of maintenance of the facility. Fairfax County is therefore requesting funding support for the implementation of the project to reduce flooding threats to the downstream community.

# 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. The Department of Management and Budget continues to integrate the Countywide Strategic Plan into budget documents. For information on how the agency's program performance contributes to these goals, please see the Performance Measurement Results by Community Outcome Area. For more information on the Countywide Strategic Plan, please see [www.fairfaxcounty.gov/strategicplan/](http://www.fairfaxcounty.gov/strategicplan/). The Stormwater Services fund 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.

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

## Fund 40100: Stormwater Services

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 \$28,655,231 for staff and operational costs; \$70,747,419 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 within Fund 30010, General Construction and Contributions, provides more transparency and the carryforward of balances at year-end.

## Fund 40100: Stormwater Services

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.

### 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

## Fund 40100: Stormwater Services

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 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 the 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.

### *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-

## Fund 40100: Stormwater Services

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

## Fund 40100: Stormwater Services

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.

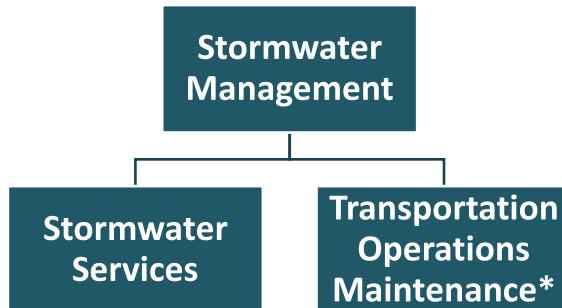
### *Stream and Water Quality Improvements*

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 \$25.6 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
<b>FUNDING</b>				
<b>Expenditures:</b>				
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636
Capital Equipment	1,519,045	652,000	1,019,268	895,000
Capital Projects	56,797,439	65,879,740	257,786,068	70,747,419
<b>Subtotal</b>	<b>\$83,313,972</b>	<b>\$95,123,010</b>	<b>\$287,772,206</b>	<b>\$101,532,605</b>
Less:				
Recovered Costs	(\$1,547,199)	(\$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>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>				
Regular	200 / 200	208 / 208	208 / 208	208 / 208

### FY 2024 Funding Adjustments

The following funding adjustments from the FY 2023 Adopted Budget Plan are necessary to support the FY 2024 program:

**Employee Compensation** \$1,471,126  
An increase of \$1,471,126 in Personnel Services includes \$467,911 for a 2.00 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 Advertised 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>\$4,867,679</b>
Funding of \$70,747,419 in Capital Projects, an increase of \$4,867,679 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 and all other approved changes through December 31, 2022:*

<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 Detail

The FY 2024 Advertised Budget Plan includes the following positions:

STORMWATER SERVICES – 208 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 (75 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
10	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		
<b>Stormwater Planning Division (56 positions)</b>			
1	Director, Stormwater Planning	1	Emergency Mgmt. Specialist III
1	Engineer V	1	Planner IV
4	Engineers IV	1	Planner III
1	Senior Engineer III	2	Landscape Architects III
9	Engineers III	1	Engineering Technician III
4	Project Managers II	1	Management Analyst II
2	Project Managers I	2	Code Specialists II
4	Ecologists IV	1	Financial Specialist II
5	Ecologists III	1	Financial Specialist I
3	Ecologists II	1	Contract Specialist II
2	Ecologists I	1	Assistant Contract Specialist
3	Project Coordinators	3	Administrative Assistants III
1	Public Works-Env. Serv. Manager		

Urban Forestry (16 positions)						
1	Director, Urban Forestry Division		3	Urban Foresters I		
1	Urban Forester IV		1	Project Manager I		
4	Urban Foresters III		1	Administrative Assistant II		
5	Urban Foresters II					

## 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-advertised-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
<b>Beginning Balance</b>	<b>\$90,246,043</b>	<b>\$0</b>	<b>\$192,147,379</b>	<b>\$0</b>
<b>Revenue:</b>				
Stormwater Service District Levy	\$88,017,253	\$94,393,055	\$94,393,055	\$100,802,650
Sale of Bonds <sup>1</sup>	93,376,033	0	0	0
Interest on Investments <sup>2</sup>	154,900	0	0	0
Stormwater Local Assistance Fund (SLAF) Grant <sup>3</sup>	2,967,180	0	629,613	0
Tree Preservation/Planting Fund <sup>4</sup>	30,583	0	0	0
Miscellaneous <sup>5</sup>	247,160	0	81,000	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>Total Available</b>	<b>\$275,039,152</b>	<b>\$94,393,055</b>	<b>\$287,251,047</b>	<b>\$100,802,650</b>
<b>Expenditures:</b>				
Personnel Services	\$21,994,682	\$24,580,634	\$24,580,634	\$26,019,550
Operating Expenses	3,002,806	4,010,636	4,386,236	3,870,636
Recovered Costs	(1,547,199)	(2,129,955)	(2,129,955)	(2,129,955)
Capital Equipment	1,519,045	652,000	1,019,268	895,000
Capital Projects <sup>6</sup>	56,797,439	65,879,740	257,786,068	70,747,419
<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>Transfers Out:</b>				
General Fund (10001) <sup>7</sup>	\$1,125,000	\$1,400,000	\$1,400,000	\$1,400,000
Land Development Services (40200) <sup>8</sup>	0	0	208,796	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>Total Disbursements</b>	<b>\$82,891,773</b>	<b>\$94,393,055</b>	<b>\$287,251,047</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>Tax Rate Per \$100 of Assessed Value</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.

## Fund 40100: Stormwater Services

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<sup>6</sup>In order to account for revenues and expenditures in the proper fiscal year, audit adjustments are reflected as an increase of \$63,612.94 to FY 2022 Capital Projects to record expenditure accruals. This impacts the amount carried forward resulting in a decrease of \$63,612.94 to the *FY 2023 Revised Budget Plan*. The projects affected by this adjustment are 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 will be 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
CAP/VCAP Grant Contribution to NVSWCD (2G25-011-000)	\$250,000	\$0.00	\$0.00	\$250,000
Conveyance System Inspection/Development (2G25-028-000)	16,725,000	1,643,450.33	5,090,929.65	3,000,000
Conveyance System Rehabilitation (SD-000034)	72,034,135	6,044,388.77	11,878,259.71	7,000,000
Dam and Facility Maintenance (2G25-031-000)	41,194,841	5,652,284.47	11,770,027.95	6,000,000
<b>Dam Safety and Facility Rehabilitation (SD-000033)</b>	<b>68,576,104</b>	<b>5,039,029.28</b>	<b>12,188,745.52</b>	<b>11,000,000</b>
Debt Service for Stormwater/Wastewater Facility (2G25-117-000)	13,358,875	1,293,366.22	7,885,633.78	4,179,875
Emergency and Flood Response Projects (SD-000032)	43,881,661	1,263,804.43	20,389,681.87	7,000,000
Enterprise Asset Management-Work Order System (SD-000044)	3,040,000	349,952.00	2,050,048.00	640,000
Flood Prevention-Huntington Area-2012 (SD-000037)	41,750,000	199,282.02	2,460,742.22	0
Lake Accotink Dredging (SD-000041)	5,000,000	816,946.24	3,606,866.14	0
NVSWCD Contributory (2G25-007-000)	7,139,388	554,811.00	609,346.00	609,346
Occoquan Monitoring Contributory (2G25-008-000)	1,940,079	177,799.00	183,437.00	189,438
Stormwater Allocation to Towns (2G25-027-000)	8,494,829	839,132.79	1,054,987.13	1,250,000
Stormwater Civil Penalties Fees (2G25-119-000)	4,204	4,204.03	0.00	0
Stormwater Proffers (2G25-032-000)	56,500	2,500.00	54,000.01	0
Stormwater Regulatory Program (2G25-006-000)	68,014,584	3,083,566.07	8,337,212.29	4,000,000
Stormwater/Wastewater Facility (SD-000039)	102,045,933	12,048,546.30	81,894,862.28	0
Stream and Water Quality Improvements (SD-000031)	281,332,285	17,160,729.68	86,784,775.25	25,628,760
Towns Grant Contribution (2G25-029-000)	5,805,976	600,097.34	1,306,485.83	0
Tree Preservation and Plantings (2G25-030-000)	339,499	23,548.79	240,027.57	0
<b>Total</b>	<b>\$780,983,893</b>	<b>\$56,797,438.76</b>	<b>\$257,786,068.20</b>	<b>\$70,747,419</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.

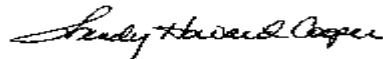
- b. Clearly articulated timeline or phasing plan for implementation: Timeline for deliverables is presented within the *Regional Collaboration to Build Community Resilience in Northern Virginia*. Timeline presented within the *Fairfax County FY 2022 - FY 2026 Capital Improvement Program, Stormwater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

Posting Date	Earmarked F	Text	Original Amount (LC)	Amount Total (TC)	Amount Total (LC)	Funds Cente	Fund	G/L Accou	Supplier
07/20/2023	1000083383	GKY, WOOD GLEN LK DREDGE TOE DRAIN REPAIR,	62,000.00	62,000.00	62,000.00	G252901001	400-C40101	563040	1000009216

**DEPARTMENT OF PUBLIC WORKS**  
**STORMWATER PLANNING DIVISION (COST ESTIMATE)**

Date:	11/3/2023
Project Name:	Woodglen Toe Drain
Project Number:	SD-000033
Sub PN:	
Fund:	C40101 (125)

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



# 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

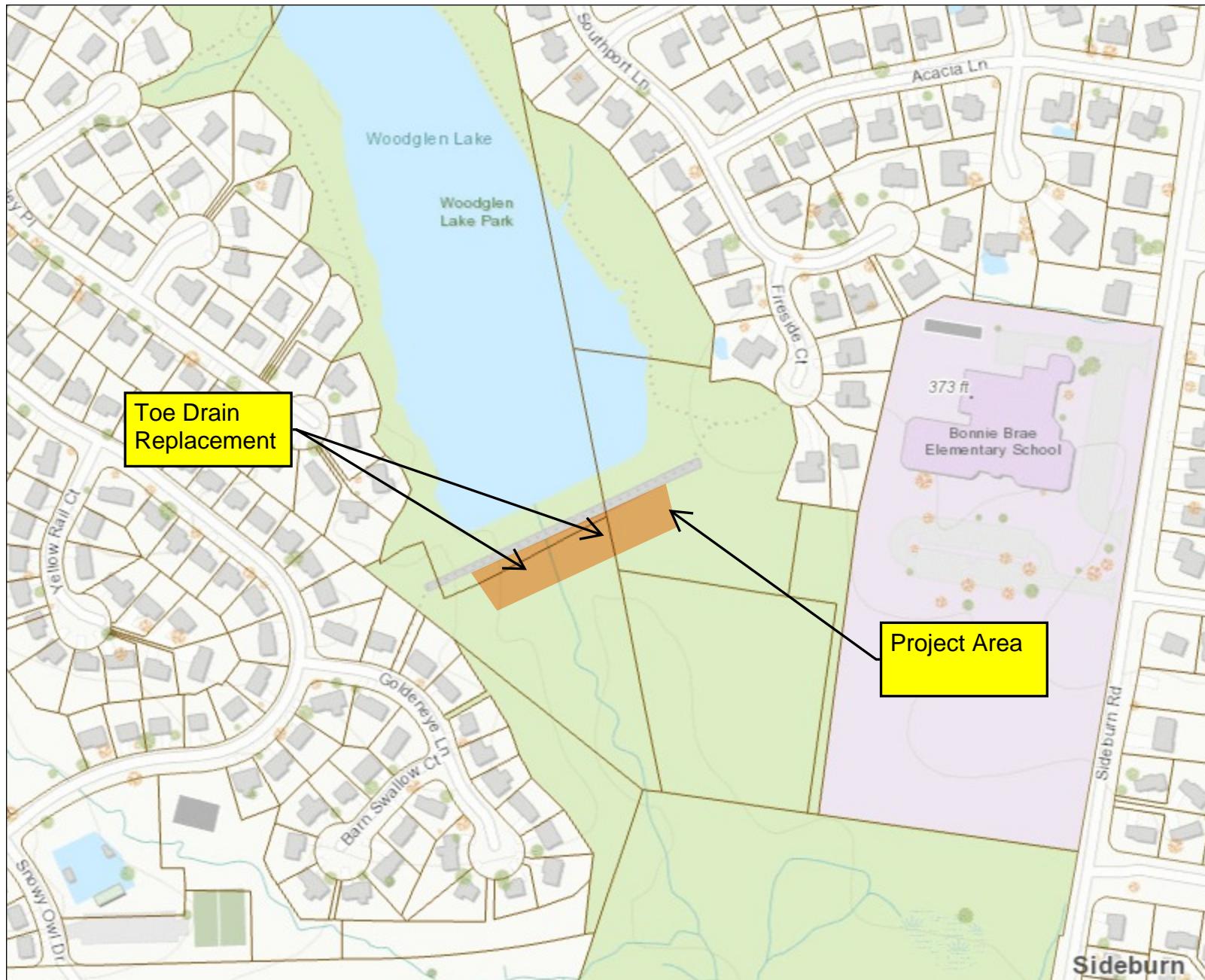
Christopher Herrington, Director, Department of Public Works and Environmental Services (DPWES)

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

Joni Calmbacher, Division Director, DPWES, Stormwater Planning Division



## Woodglen Lake



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

Parcels

Project Area

Notes:

Map produced: 10/25/2023

# National Flood Hazard Layer FIRMette

77°19'14"W 38°48'20"N



## Legend

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

### SPECIAL FLOOD HAZARD AREAS

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

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

Future Conditions 1% Annual Chance Flood Hazard Zone X

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

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

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

8 - - - Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped



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

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

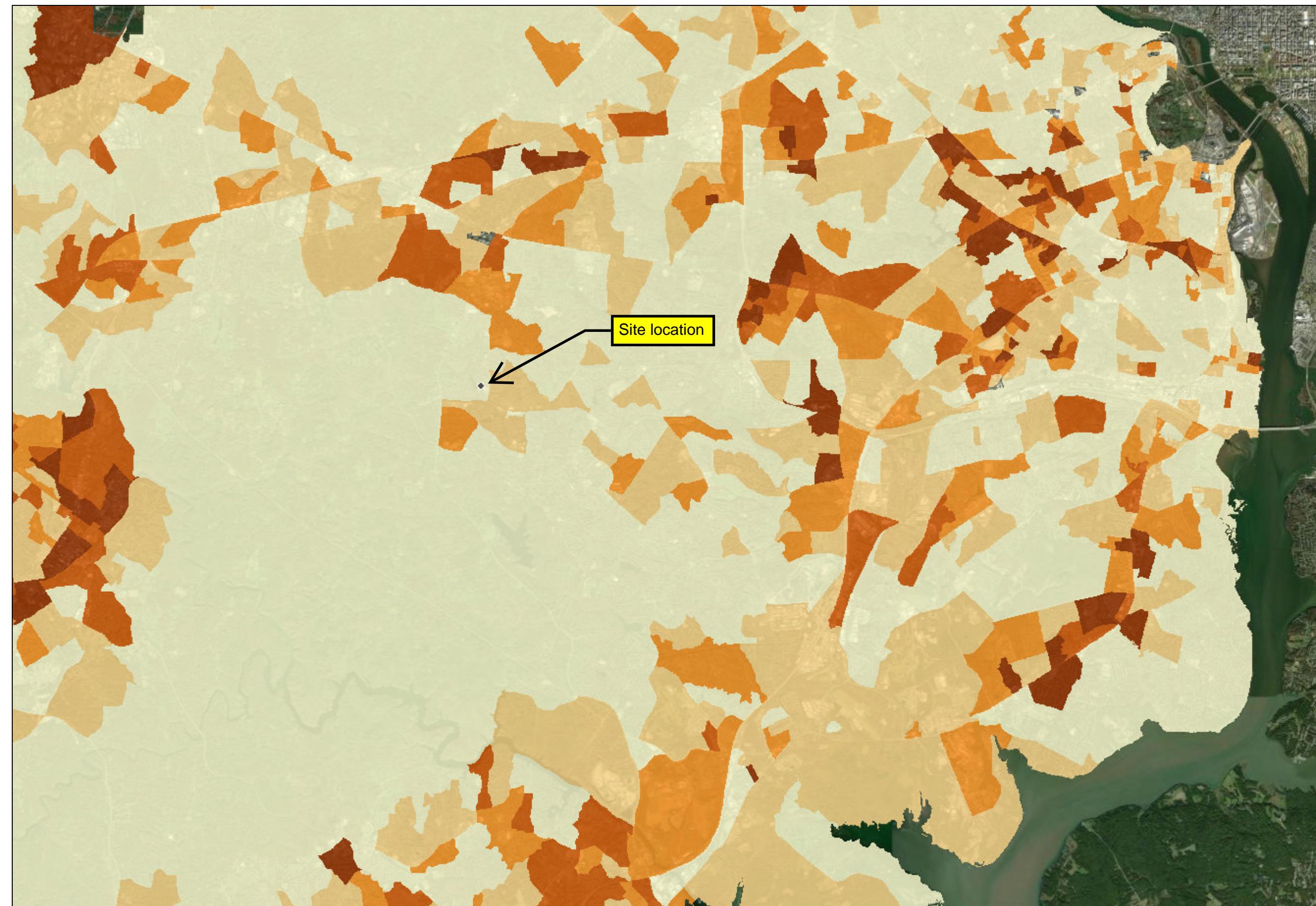
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/19/2023 at 1:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

## 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.

1:144,448  
0 1.25 2.5 5 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 Pohick Creek Watershed -

**Location of Project or Activity (Include Maps):** Fireside 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):** FEMA Zone A and Zone AE

**Flood Insurance Rate Map Number(s) (If Applicable):** 51059C0265E

**Total Cost of Project:** \$400,000

**Total Amount Requested** \$340,000

**Amount Requested as Grant** \$170,000

**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: Woodglen Lake Toe Drain Repair 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>	\$ 170,000.00
									<b>Grand Total Local Share of Project</b>	\$ 170,000.00
									<b>Federal Funding (if applicable)</b>	\$ -
									<b>Project Grand Total</b>	\$ 340,000.00 *
									<b>Locality Cost Match</b>	50%
<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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,000.00	\$ -	\$ -	\$ -	\$ 170,000.00
State Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,000.00	\$ -	\$ -	\$ -	\$ 170,000.00
Pre-Award/Startup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 340,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 340,000.00</b>

\*Unencumbered Total

## 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

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- 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 Woodglen\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_FINAL.pdf**

**SEE GRANT APPLICATION REPORT FILE ENTITLED –**

**Round 4\_515525\_Fairfax\_Co\_Project Woodglen\_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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