



County of Fairfax, Virginia

FLOODPLAIN MANAGEMENT PLAN

(Part of the Northern Virginia Regional Hazard Mitigation Plan)

PROGRESS REPORT



Severe repetitive loss property in the Scotts Run watershed that was acquired in January, 2024. The structure, originally constructed in the 1950's is slated for demolition and the property will be restored to a natural floodplain in the summer of 2024. Inset shows aerial photo of structure, and its location within a Special Flood Hazard Area.

**STORMWATER PLANNING DIVISION
DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES**

A Fairfax County, VA Publication

July, 2024

Table of Contents

| | Page |
|--|------|
| I. Introduction | 1 |
| II. Fairfax County Mitigation Action 2 (2006): Continue to develop and implement flood proofing solutions for structures analyzing flood causes and responsibilities..... | 2 |
| III. Fairfax County Mitigation Action 5 (2006): Continue to install remote lake level sensors, data collectors/alarms, stream flow gauges, tide gauges and rain gauges at critical locations throughout the County to allow for earlier warning of potential flooding | 2 |
| IV. Fairfax County Mitigation Action 13 (2006): Identify need for backup generators, communications, and/or vehicles at critical public facilities. Develop means to address shortfall identified..... | 3 |
| V. Fairfax County Mitigation Action 28 (2006): Continue to implement building and development standards as required under the National Flood Insurance Program..... | 3 |
| VI. Fairfax County Mitigation Action 6 (2010): Continue to employ a broad range of warning systems throughout the County..... | 3 |
| VII. Fairfax County Mitigation Action 12 (2010): Identify funding opportunities to replace vulnerable or undersized culvert stream crossings with bridges or larger culverts to reduce flood hazards | 4 |
| VIII. Fairfax County Mitigation Action 16 (2010): Upgrade the New Alexandria/Belle View pump station fuel oil storage tanks from underground to aboveground storage..... | 4 |
| IX. Fairfax County Mitigation Action 17 (2010): Continue to seek voluntary buy-outs of FEMA’s repetitive loss properties within the floodplain..... | 4 |
| X. Fairfax County Mitigation Action 20 (2010): Collaborate with FEMA to develop risk maps for the Cameron Run Watershed and the Belle View communities | 5 |
| XI. Fairfax County Mitigation Action 21 (2010): Develop an outreach program aimed at assisting private dam owners with proper operation and maintenance..... | 5 |
| XII. Fairfax County Mitigation Action 23 (2010): Identify gaps in current recovery planning efforts within the County | 5 |
| XIII. Fairfax County Mitigation Action 26 (2010): Use fee simple and/or permanent easement to prevent development in the highest priority undeveloped floodplain (and/or wetlands) areas. Work with land trusts to purchase the land or conservation easements. Use these areas as public open space for passive recreational uses | 6 |

XIV. Fairfax County Mitigation Action 27 (2010): Continue development of a comprehensive River Flood Response System for New Alexandria/Belle View and Huntington in partnership with the National Weather Service and the U.S. Army Corps of Engineers ... 6

XV. Fairfax County Mitigation Action 29 (2010): Conduct annual outreach to each FEMA-listed repetitive loss and severe repetitive loss property owner, providing information on mitigation programs (grant assistance, mitigation measures, flood insurance information) that can assist them in reducing their flood risk.....6

XVI. Fairfax County Mitigation Action 30 (2010): Promote structural mitigation to assure redundancy of critical facilities, to include but not limited to roof structure improvement, to meet or exceed building code standards, upgrade of electrical panels to accept generators, etc. 7

XVII. Fairfax County Mitigation Action 32 (2010): Encourage public and private water conservation plans, including consideration of rainwater catchment system 7

XVIII. Fairfax County Mitigation Action 33 (2010): Work with the Virginia Department of Forestry to review local zoning and subdivision ordinances to identify areas to include wildfire mitigation principles..... 7

XIX. Fairfax County Mitigation Action 1 (2017): Develop an Emergency Action Plan for the Huntington Levee project 8

XX. Fairfax County Mitigation Action 2 (2017): Collaborate with other departments of Fairfax County to identify satellite locations throughout Fairfax County to build additional salt storage facilities to reduce the travel time and distance during snow/ice events..... 8

XXI. Fairfax County Mitigation Action 3 (2017): Secure funding to purchase additional equipment/trucks to enhance our current level of service to be able to dedicate one piece of equipment/truck to each police station within Fairfax County or identify other resources to accomplish this need.....

XXII. Fairfax County Mitigation Action 4 (2017): Coordinate and support the Virginia Department of Transportation (VDOT) in the identification and resolution of road flooding and drainage issues related to VDOT roadways 8

XXIII. Fairfax County Mitigation Action 5 (2017): Armor stream bank and construct a flood wall to prevent stream bank erosion and flooding at the Noman M. Cole, Jr. Pollution Control Plant 8

XXIV. Fairfax County Mitigation Action 6 (2017): Design and construct safe rooms at critical facilities to house personnel and community members during high wind events 9

XXV. Fairfax County Mitigation Action 7 (2017): Provide emergency utility capabilities for critical facilities. This includes, but is not limited to providing generator and emergency water hookups 9

XXVI. Fairfax County Mitigation Action 8 (2017): Improve Fairfax County’s Community Rating System (CRS) classification from Class 6 to Class 5 by documenting services that are currently being provided 9

XXVII. Fairfax County Mitigation Action 9 (2017): Provide routine inspections and maintenance of dams to ensure they are functional 9

XXVIII. Fairfax County Mitigation Action 10 (2017): Continue to implement flood mitigation projects for communities in Fairfax County that are exposed to severe flooding risk 10

XXIX. Fairfax County Mitigation Action 11 (2017): Update flood information website to include a link to the Office of Emergency Management website and the private dam owners outreach materials 12

XXX. Fairfax County Mitigation Action 12 (2017): Support mitigation of priority flood-prone structures through promotion of acquisition/demolition, elevation, flood proofing, minor localized flood control projects, mitigation reconstruction and where feasible using FEMA HMA programs where appropriate 12

Floodplain Management Plan Progress Report

I. Introduction

In an effort to reduce the nation's mounting natural disaster losses, the United States Congress passed the Disaster Mitigation Act of 2000 (DMA 2000), which amends the Robert T. Stafford Disaster Relief and Emergency Act. Section 322 of DMA 2000 emphasizes the need for state and local governments to coordinate closely on mitigation planning activities and makes the development of a hazard mitigation plan a specific eligibility requirement for any local government applying for federal mitigation grant funds. These funds include the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) Program, both of which are administered by the Federal Emergency Management Agency (FEMA) under the U.S. Department of Homeland Security.

The Northern Virginia Regional Hazard Mitigation Plan (November 2022) was developed in accordance with state and federal rules and regulations governing local hazard mitigation plans. Fairfax County (County) adopted the plan in accordance with the authority and police powers granted to Counties and municipalities under sections 15.2-2223 through 15.2-2231 of the Virginia State Code. Under Code 44 of Federal Regulations (CFR) Part 201.6(c) (4) (i), the plan maintenance process includes a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan. Under 44 CFR Part 201.6(c)(4)(ii), the plan maintenance process includes a procedure by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate. A copy of this plan can be found at this link: [fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/Assets/Documents/2022 Northern Virginia Hazard Mitigation Plan_Combined.pdf](https://www.fairfaxcounty.gov/emergencymanagement/sites/emergencymanagement/files/Assets/Documents/2022%20Northern%20Virginia%20Hazard%20Mitigation%20Plan_Combined.pdf).

The purpose of the Northern Virginia Hazard Mitigation Plan is to:

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

Each jurisdiction participating in the Northern Virginia Hazard Mitigation Plan is responsible for implementing specific actions as prescribed in their locally adopted mitigation action plan. In each mitigation action plan, every proposed action is assigned to a specific local department or agency for responsibility and accountability. This approach enables individual jurisdictions to update their unique mitigation action plan as needed without altering the broader focus of the regional plan. The separate adoption of locally specific actions also ensures that each jurisdiction is not held responsible for monitoring and implementing the actions of other jurisdictions involved in the planning process.

The Fairfax County Department of Public Works and Environmental Services (DPWES), Stormwater Planning Division (SWPD), has prepared this progress report on the implementation of the flood mitigation actions of the Northern Virginia Hazard Mitigation Plan in response to requirements for the County's participation in the Community Rating System (CRS) program. The CRS is a program under FEMA's National Flood Insurance Program (NFIP) that provides flood insurance discounts to participating communities. This report is required to be submitted annually.

Copies of the progress report are sent to all members of the Fairfax County Board of Supervisors (Board) each year. In addition, this report will be released to the media and made available to the public. A news release inviting the media and the public to review the progress report on the County's website is sent to the County media mailing list. Hard copies of this and earlier progress reports are available to the public and media at the SWPD, Fairfax County Government Center, 12000 Government Center Parkway, Suite 449, Fairfax, VA 22035.

A hard copy of this document and earlier progress reports may be obtained from the SWPD by calling 703-324-5500, TTY 711, or a request may be made by email at DPWESSWPDMail@fairfaxcounty.gov.

The Board adopted the updated Northern Virginia Hazard Mitigation Plan (November, 2022) which includes data, assessments, and actions specific to Fairfax County in Annex 7, on June 27, 2023. This report provides an annual update of the County's actions required by this plan. Provided below is a brief discussion of the progress made on specific flood mitigation actions proposed by the County as identified in the Northern Virginia Hazard Mitigation Plan.

II. Fairfax County Mitigation Action 2 (2006):

Continue to develop and implement flood proofing solutions for structures analyzing flood causes and responsibilities

The Huntington Levee project was completed in June 2019. The Huntington Community with 230 structures in a Repetitive Loss Area (RLA) was excluded from FEMA's Special Flood Hazard Areas (SFHAs) in Fairfax County through a Letter of Map Revision (LOMR), with an effective date of December 13, 2021.

The Department of Public Works and Environmental Services (DPWES) is also currently managing 17 active flood mitigation projects. Please see item XXVIII. Fairfax County Mitigation Action 10 (2017) for additional information.

III. Fairfax County Mitigation Action 5 (2006):

Continue to install remote lake level sensors, data collectors/alarms, stream flow gauges, tide gauges and rain gauges at critical locations throughout the County to allow for earlier warning of potential flooding

Operation and maintenance of the County Flood Warning System continues. No new sites were added over the past year but a significant system upgrade from ALERT to ALERT 2 communication protocol was completed in 2022 to improve system reliability.

IV. Fairfax County Mitigation Action 13 (2006):

Identify need for backup generators, communications, and/or vehicles at critical public facilities. Develop means to address shortfall identified

The Fairfax County Park Authority (FCPA) has three (3) facilities with gymnasiums and club rooms adequate for emergency sheltering – Franconia, Spring Hill, and Audrey Moore Rec Centers. The FCPA has received Virginia State Emergency Shelter Grant funding to install a backup natural gas-powered electric generator at the Franconia District Rec Center, to be complete by the end of calendar year 2024 (December 2024). An extension to August 2024 has been approved, and a final extension is being requested. Delays are due to manufacturing and procurement leads times. The generator will support the emergency shelter sections of the facility (gym, lower club room, lower halls, and locker rooms). The back-up generator design for Spring Hill Recreation Center has yet to be installed and could be part of a potential future grant submission. A back-up generator for Audrey Moore Rec Center could be part of a future grant submission request or part of the ongoing facility resign process. Of the other six (6) FCPA Rec Centers, Providence and Cub Run Rec Centers have backup generators installed. Wastewater Management operates and maintains 70 wastewater pump stations and three stormwater facilities that require emergency backup power generators. These range in size from 10 KW to 1750 KW. Thirteen (13) of these wastewater pumping stations, and all three stormwater facilities are located within the County’s floodplain areas. In addition, five generators with installed capacity of 2 MW each have been installed at Noman M. Cole Jr. Pollution Control Plant. In 2021, a UV final effluent disinfection system went online, and there is 750 KW backup generator dedicated to this process.

V. Fairfax County Mitigation Action 28 (2006):

Continue to implement building and development standards as required under the National Flood Insurance Program

The Fairfax County Department of Land Development Services (LDS) continues to enforce Virginia Building Codes and the County’s floodplain regulations. Together, these provisions meet or exceed NFIP standards. LDS conducts regular training for building inspectors, permit technicians, and plan reviewers to ensure consistent implementation of these provisions.

VI. Fairfax County Mitigation Action 6 (2010):

Continue to employ a broad range of warning systems throughout the County

The Department of Emergency Management and Security (DEMS) launched the new Fairfax Alerts system in the summer of 2014 and continues to utilize other ways to alert residents including social media and Wireless Emergency Alerts system (WEA). The alert and warning annex for the Emergency Operations Plan (EOP) has been completed. DEMS continues to

maintain and expand alert capabilities using all available technology. Currently, DEMS utilizes Fairfax Alerts (which is part of the National Capital Region's mass alerting system) to alert residents, employees, businesses, and visitors. Other technology such as the Wireless Emergency Alerts system (WEA) and social media have also been deployed and operationalized.

VII. Fairfax County Mitigation Action 12 (2010):

Identify funding opportunities to replace vulnerable or undersized culvert stream crossings with bridges or larger culverts to reduce flood hazards

FCCA Trail Development Plan guides the development and renovations of trails. FCCA utilizes General Obligation Bonds, General Fund, Sinking Funds, Proffers, various federal grant funding and revenue from telecommunications poles to address trail erosion and improve vulnerable or undersized culvert stream crossings. In CY 2024, FCCA's Planning and Development Division continues to implement projects with \$1 million in American Rescue Plan Act of 2021 (ARPA) funding provided by the Virginia Department of Conservation and Recreation (VDCR) for several trail improvements in Royal Lake Park and the Rabbit Branch Stream Valley. Design work continues on several of the Royal Lake projects including a bridge replacement, improvements to approximately 400 ft of trail, a shade structure, and a new natural surface stream valley trail in Rabbit Branch Stream Valley. For the coming year work will continue on the design and permitting of the American Rescue Plan Act of 2021 (ARPA) funded trail improvements in Royal Lake Park and the Rabbit Branch Stream Valley. Staff are also managing FCDOT funded projects which include renovated trail in the Difficult Run Stream Valley the design and permitting for the replacement of failing bridges in several watersheds throughout the County. Funding for these activities will be made available through the 2020 Park Bond, park proffers and sinking fund money and the FCDOT funding will be provided through the Transportation Improvements fund.

VIII. Fairfax County Mitigation Action 16 (2010):

Upgrade the New Alexandria/Belle View pump station fuel oil storage tanks from underground to aboveground storage

The Wastewater Design and Construction Division completed upgrades to the fuel oil storage tank at the New Alexandria/Belle View pump station. The project included the removal of an underground fuel oil tank and replacement with an aboveground tank. The aboveground tank was constructed to meet or exceed all NFIP minimum requirements, with all openings elevated above the base flood elevation. The project was substantially completed on October 29, 2021.

IX. Fairfax County Mitigation Action 17 (2010):

Continue to seek voluntary buyouts of FEMA's repetitive loss properties within the floodplain

As part of the Tripps Run at Barrett Road Flood Mitigation Project, the County purchased (February 2024) nine private properties (many of them being repetitively loss) through voluntary acquisition to create a reconnected floodplain and an environmental stream corridor. At this

location, the Tripps Run floodplain is currently designated by FEMA as “Zone AE”, whereby the base flood elevations have been determined (FIRM 51059C0285E, Panel 285 of 450, September 17, 2010). Grant applications for FEMA Flood Mitigation Assistance (FMA) Funding were submitted in January 2022 and 2023, but not selected. A state Community Flood Preparedness Fund (CFPF) grant was also applied for in April 2022 to cover a portion of the cost of the voluntary acquisitions and flood mitigation design and construction. The County was awarded the CFPF grant and is currently proceeding with the design of the project.

In 2022, the County received an FMA grant for the voluntary acquisition of a severe repetitive loss property located in the Scotts Run watershed. The grant will assist the County with acquiring the severe repetitive loss property, demolishing the existing structure on the property, and restoring the property to a natural floodplain. The property was acquired in January 2024 with demolition and restoration expected to be complete by the summer of this year (see cover photo).

X. Fairfax County Mitigation Action 20 (2010):

Collaborate with FEMA to develop risk maps for the Cameron Run watershed and the Belle View communities

FEMA, as part of their Risk Map initiative, is updating the County’s Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) including Cameron Run and Belle View. The County received their preliminary FIRM and FIS on June 30th, 2021. A revised preliminary FIRM and FIS addressing the County’s appeals is expected in August, 2024, with a Letter of Final Determination (LFD) anticipated in 2025. The County is required to adopt the maps within six months of receiving the LFD.

XI. Fairfax County Mitigation Action 21 (2010):

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

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

XII. Fairfax County Mitigation Action 23 (2010):

Identify gaps in current recovery planning efforts within the County

In 2012, the County published the Pre-Disaster Recovery Plan, which was scheduled to be revised in 2017. During the review process, gaps were identified and readdressed. The Pre-Disaster Recovery plan was updated in 2020. The 2020 plan was adopted/signed by the County Executive in April 2020. The Pre-Disaster Recovery Plan is currently in the review and revision process. As part of that process the plan is being renamed the Pre-Disaster Recovery Framework. It is currently in the signature approval process with it to be fully approved and adopted in 2024.

XIII. Fairfax County Mitigation Action 26 (2010):

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

FCPA continues to acquire land in undeveloped floodplain areas via fee simple acquisitions, developer dedications, donations, and easements. In CY 2023, 13.6 acres of resource protected land was acquired through developer dedication to provide continuous natural habitat in the Accotink Stream Valley Park, bringing the total acreage of Accotink Stream Valley Park to 779 acres.

XIV. Fairfax County Mitigation Action 27 (2010):

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

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

XV. Fairfax County Mitigation Action 29 (2010):

Conduct annual outreach to each FEMA-listed repetitive loss and severe repetitive loss property owner, providing information on mitigation programs (grant assistance, mitigation measures, flood insurance information) that can assist them in reducing their flood risk

The County has updated its repetitive loss area maps based on FEMA's 2022 list of properties that have experienced repetitive loss from flooding. There now a total of 34 repetitive loss areas identified with 98 repetitive loss properties. FEMA defines repetitive loss property as, "*a National Flood Insurance Program-insured structure that has had at least two paid flood losses of more than \$1,000 each in any 10-year period since 1978.*" The County now forwards a letter to all properties that are located within the mapped repetitive loss areas biennially. The letter advises the recipients that their property is located in an area that may experience periodic flooding and how to prepare for flooding. The letter also advises the recipients about implementing permanent flood protection and provides information about FEMA Hazard Mitigation Assistance and basic facts about flood insurance.

XVI. Fairfax County Mitigation Action 30 (2010):

Promote structural mitigation to assure redundancy of critical facilities, to include but not limited to roof structure improvement, to meet or exceed building code standards, upgrade of electrical panels to accept generators, etc.

This will be completed based on available funding.

XVII. Fairfax County Mitigation Action 32 (2010):

Encourage public and private water conservation plans, including consideration of rainwater catchment system

FCPA offers a large number of educational and outreach materials and programs that are aimed to promote stewardship to the residents and visitors of the County. Many of the educational programs include a component that is related to water conservation and appropriate land use. Additionally, the County partners with Northern Virginia Soil and Water Conservation District (NVSWCD) to host workshops and technical classes that encourage conservation plans, including consideration of rainwater catchment systems. For the last three years, FCPA's Watch the Green Grow program has provided guidance to landowners and HOAs in Fairfax to appropriately manage their landscapes to tie in with watershed initiatives and stream valley park management strategies, among other goals.

XVIII. Fairfax County Mitigation Action 33 (2010):

Work with the Virginia Department of Forestry to review local zoning and subdivision ordinances to identify areas to include wildfire mitigation principles

The Virginia Department of Forestry recently drafted a “Firewise Plan” that focuses on a voluntary outreach-based program to engage the community to go out and remove fuels, clean gutters, and other activities that can help prevent wildfire mitigation. FCPA continues to partner with the Virginia Department of Forestry to develop staff training and outreach language material to support prescribed burn activities in Fairfax. Through this program, FCPA staff speak one on one with the County residents about prescribed burns in their area and discuss the benefits of prescribed burns for restoration and the reduction of natural fuels. The FY 2020 Park Bond included continued funding for the Helping Our Land Heal Program which facilitates this citizen outreach as part of its prescribed burn program.

XIX. Fairfax County Mitigation Action 1 (2017):

Develop an Emergency Action Plan for the Huntington Levee project

An interim flood response plan for the Huntington community was completed in June 2019 to reflect new triggers and actions for emergency operation activities. This plan was developed as part of the overall flood warning system which is required as part of the FEMA levee accreditation. After interdepartmental reviews and incorporation of comments, the plan was finalized on July 9, 2021. The County received a letter from FEMA dated February 23, 2022,

confirming that the Huntington levee had been accredited. This mitigation action is considered complete.

XX. Fairfax County Mitigation Action 2 (2017):

Collaborate with other departments of Fairfax County to identify satellite locations throughout Fairfax County to build additional salt storage facilities to reduce the travel time and distance during snow/ice events

The salt domes at Central Material Facility (CMF) and Dulles Material Facility (DMF) were completed in November 2020 and both are operational. Fairfax County Public Schools (FCPS) is currently in the design phase of another salt dome at W.T. Woodson High School. DPWES is partnering with FCPS to install the salt dome and vehicle wash facility at this site. There have been no other sites identified for salt storage as of this time.

XXI. Fairfax County Mitigation Action 3 (2017):

Secure funding to purchase additional equipment/trucks to enhance our current level of service to be able to dedicate one piece of equipment/truck to each police station within Fairfax County or identify other resources to accomplish this need

The County has provided a contracted resources at each police station for the last two seasons. To sustain this level of service, the County is currently looking for additional drivers/operators and equipment that may be deployed from within DPWES to sustain this service. Staff will continue to request this additional funding for equipment and resources in future budgets.

XXII. Fairfax County Mitigation Action 4 (2017):

Coordinate and support the Virginia Department of Transportation (VDOT) in the identification and resolution of road flooding and drainage issues related to VDOT roadways

Coordination with VDOT on the identification and resolution of road flooding and drainage issues is ongoing.

XXIII. Fairfax County Mitigation Action 5 (2017):

Armor stream bank and construct a flood wall to prevent stream bank erosion and flooding at the Noman M. Cole, Jr. Pollution Control Plant

The project was substantially complete on March 11, 2020.

XXIV. Fairfax County Mitigation Action 6 (2017):

Design and construct safe rooms at critical facilities to house personnel and community members during high wind events

This action provides for storm proofing any critical facilities. DEMS will discuss mitigation measures and funding sources before, during, and after construction with builders. This will be initiated as funding is available.

XXV. Fairfax County Mitigation Action 7 (2017):

Provide emergency utility capabilities for critical facilities. This includes, but is not limited to, providing generator and emergency water hookups

DEMS will discuss mitigation measures and funding sources before, during, and after construction with builders. This will be completed as funding is available.

XXVI. Fairfax County Mitigation Action 8 (2017):

Improve Fairfax County's Community Rating System (CRS) classification from Class 6 to Class 5 by documenting services that are currently being provided

FEMA's CRS management contractor conducted the five-year CRS verification cycle visit on December 18, 2019, and the County was notified it would remain a class 6 CRS community on July 31, 2020. The County successfully completed annual recertification of its rating in August 2023, and is currently compiling documentation for the 2024 recertification. SWPD will evaluate opportunities for improving the County's CRS classification during the next verification cycle in 2025.

XXVII. Fairfax County Mitigation Action 9 (2017):

Provide routine inspections and maintenance of dams to ensure they are functional

County owned state regulated dams are regularly inspected in accordance with Virginia Department of Conservation and Recreation (DCR) approved facility specific operation and maintenance plans which require the dams to be inspected at a minimum annually. State regulated dam inspections may include operator inspections, maintenance inspections, technical safety inspections (performed by a professional engineer), dam owner (or designee) inspections, and overtopping inspections. Inspection reports are submitted to the DCR annually. Routine maintenance on state regulated dams occurs throughout the year. Mowing and routine maintenance is more frequent during the growing season with mowing occurring approximately monthly on state regulated dams. Maintenance work orders and/or contractor purchase orders are prepared to address any maintenance items identified in the inspection to ensure the dams remain functional.

The County owned stormwater management facility dams that are not state regulated are inspected at a minimum biennially by a qualified County consultant. Maintenance work orders

and/or contractor purchase orders are prepared to address any maintenance items identified in the inspection to ensure the dams remain functional.

Privately owned stormwater management facility dams are inspected at a minimum every five years by a qualified County consultant. Maintenance items identified during the inspection are sent to the facility/dam owner requesting maintenance and follow up documentation that maintenance has been performed to ensure the dam and stormwater management facility is functional.

XXVIII. Fairfax County Mitigation Action 10 (2017):

Continue to implement flood mitigation projects for communities in Fairfax County that are exposed to severe flooding risk

As a result of the July 8th, 2019, storm event, the County conducted flood damage assessments and identified several potential flood mitigation projects for further evaluation and implementation. These potential projects were incorporated into the County's plan to address properties and areas with severe flooding risks, including those areas previously identified as repetitive loss areas.

DPWES is currently managing 18 active flood mitigation projects with a total estimated cost of \$75M that vary in scope from flood risk reduction measures on individual lots to neighborhood-scale stormwater improvements.

The Tripps Run at Barrett Road flood mitigation project in the Mason District involves an area of historic flooding along Barrett Road which has been identified as one of the County's 21 repetitive loss areas. The area of interest is the segment between Annandale Road and Sleepy Hollow Road. A study was conducted, and the final report was completed in December 2020, with a report revision issued in November 2021. The report recommended a scenario that included acquisition of nine properties to create an environmental stream corridor with restorative stream enhancements and stabilization. The County has secured funding through the Community Flood Preparedness Fund state grant and has engaged a consultant for completion of the construction design. Negotiations to acquire the nine properties have been completed and design of the new stream corridor has been initiated.

The other flood mitigation projects in various stages of implementation are:

- Dead Run Drive (Dranesville District)
- Valley Avenue (Dranesville District)
- Forest Villa Lane (Dranesville District)
- Woodacre Drive (Dranesville District)
- Weaver-Dillon Avenue Stormwater Neighborhood Improvements (Dranesville District)
- Tucker Avenue (Dranesville District)
- Kent Gardens (Dranesville District)
- Potomac Hills Neighborhood Stormwater Improvement Project (Dranesville District)
- Broad Branch Court (Dranesville District)
- Kings Manor Neighborhood Stormwater Improvement Project (Dranesville District)

- Sunset Hills Drainage Improvement Project (Hunter Mill District)
- Ravenwood Park Neighborhood Stormwater Improvement Project Study (Mason District)
- Chohan Avenue and 8th Street (Mason District)
- Ridgecrest Drive Drainage Improvements (Mt. Vernon District)
- Chesterbrook Road and North Albemarle Street
- Gordon Avenue Channel Improvements
- Hollin Hall/Wellington Neighborhood Stormwater Improvement Project

DPWES is also developing a flood risk reduction plan with newly proposed flood mitigation levels of service for existing structures and future developments. The proposed service level for existing structures would apply a proactive risk-based approach to the County flood mitigation projects by factoring the frequency, degree of flooding, and equity considerations into project selection and prioritization, regardless of proximity to existing infrastructure.

The primary focus of these projects is to prevent structural flooding. Since the July 8th, 2019, storm event, DPWES has completed flood mitigation projects on individual residential properties. It should be noted that some structural floodings do not have any feasible solution beyond voluntary acquisition of the property or are not supported by the homeowner and do not move forward.

Stormwater staff regularly respond to flooding and drainage reports from residents. Staff regularly address drainage and flooding concerns through routine maintenance actions. Staff also provide information to property owners about what steps they can take to report drainage/flooding issues to better protect their properties.

DPWES has also initiated a project to complete modeling and mapping of the County's regulatory floodplains in the County's 30 designated watersheds. Pilot studies for two watersheds (Dogue Creek and Little Hunting Creek) have been completed, and preliminary hydraulic models for the other watersheds are currently being developed under contract. All preliminary hydraulic models are projected to be completed by the end of 2024.

XXIX. Fairfax County Mitigation Action 11 (2017):

Update flood information website to include a link to the Department of Emergency Management and Security and outreach materials for private dam owners.

A link to the Fairfax County Department of Emergency Management and Security website is included on the flood information web page:

<https://www.fairfaxcounty.gov/publicworks/stormwater/flood-information>. Also included on this page is general information on dams and dam safety for, as well requirements for proposed developments located in the breach zones of state regulated dams in the County.

XXX. Fairfax County Mitigation Action 12 (2017):

Support mitigation of priority flood-prone structures through promotion of acquisition/demolition, elevation, flood proofing, minor localized flood control projects, mitigation reconstruction and where feasible using FEMA HMA programs where appropriate.

The Tripps Run at Barrett Road Flood Mitigation Project involves an area of historic flooding along Barrett Road which has been identified as one of the County's 21 repetitive loss areas. Most recently, several structures in this area experienced flooding and interior damage during significant storm events on July 8, 2019 and July 7, 2020.

A study analyzing and evaluating several flood mitigation alternatives was completed in December 2020. The study recommended a scenario that included acquisition and demolition of nine properties (many of these repetitive loss) to create a reconnected floodplain and an environmental stream corridor. The County has secured partial funding for the project through a state Community Flood Preparedness Fund grant and has engaged a consultant for completion of the construction design. Negotiations to acquire the nine properties have been completed and design of the stream corridor has been initiated. Please also refer to Item IX. Fairfax County Mitigation Action 17 (2010) for additional information.

To request this information in an alternate format, call 703-324-5500, TTY 711.



Fairfax County
Department of Public Works and Environmental Services
Stormwater Planning Division
12000 Government Center Parkway
Suite 449
Fairfax, VA 22035
Fairfax County website: <https://www.fairfaxcounty.gov/publicworks/stormwater>
703-324-5500, TTY 711
FAX 703-802-5955