FLOODACTION
ALEXANDRIA

OCTOBER 2025 ISSUE 25

ABOUT US ADVISORY GROUP ENEWS

MANAGER'S MESSAGE

Sometimes when it's sunny and parts of the state are experiencing drought conditions, it can be easy to forget that Alexandria faced multiple flooding events. The July 8, 2019, flash flooding event and subsequent flash flooding events in July and September of 2020 and August 2021 impacted residents and business owners. The outcome of these flooding events helped spur City management and elected officials into greater action to mitigate flooding by creating Flood Action Alexandria to accelerate capital projects and operating programs. It's important that we continue to work on delivering capital infrastructure projects and operations and maintenance programs to mitigate against future flooding and to ensure that our storm sewer system is adequate to safely convey stormwater runoff, is in a state of good repair, and is operating at capacity.

It's also important for us all to remember that it takes time to deliver complex capital infrastructure projects in a densely populated urban area like Alexandria. The urban nature of our city can make project delivery challenging given the myriad utilities, such as water, gas, electric, sewer, and fiber, that exist underground in our rights-of-way, along with above-ground space also being at a premium. Staff continue to work with our consultants on the planning, design, and construction of large capacity and neighborhood spot projects. This work isn't flashy, and it takes quite a bit of time to navigate the complexities to design and construct a successful flood mitigation project. Oftentimes, we tend to put our heads down and work hard to deliver these projects, while sometimes neglecting to ensure that the public knows that staff continue to do the work to deliver these capital projects. In this case, no news can be considered good news, but we understand that it's better to be well-informed and know the status of the work being done. Please take a few minutes to read through this newsletter to get an update on the latest work being done to help make Alexandria more resilient to flooding and increase the quality of life for our residents, businesses, and our visitors.

Jesse Maines, Stormwater Management Division Chief

Editor's note: The Manager's Message is a periodic editorial authored by senior leaders of the Flood Action Alexandria Program.

PROJECT UPDATES

LARGE CAPACITY PROJECTS

City Prepares for Utility Relocation Ahead of Commonwealth, Ashby, Glebe Flood Mitigation Project Construction Phase

FOUR MILE RUN
CORA KELLY GIRLS
SOFTBALL FIELD
CITY OF ALEXANDRIA

The City will install a new outfall to discharge stormwater to Four Mile Run near the Cora Kelley softball fields

Flood Action Alexandria's first large capacity project is getting closer to construction.

City staff are in the final stretch of the project's design phase, which they expect to complete by the end of this year. As the construction phase nears, the City is beginning the process of coordinating utility relocation following initial design meetings with the utility providers.

The Commonwealth, Ashby, Glebe, Flood Mitigation Project is a major investment to reduce flooding near the intersections of Commonwealth Avenue and E. Glebe Road, and Ashby Street and E. Glebe Road. The project plans to install new parallel relief sewers on Commonwealth and E. Glebe to increase capacity, and a junction connecting the new sewer to the existing ones along Ashby St. and Montrose Ave. It also includes new inlets along Commonwealth, Ashby, and Montrose, a new outfall to discharge to Four Mile Run, and green infrastructure along Commonwealth to improve water quality.

The project team is working with utility providers to design relocation plans to make room for the significant amount of new infrastructure. This work is expected to begin next year.

Arlington County, collaborating with City staff, has started work on the Mt. Vernon Avenue/ Arlington Bridge Road Bridge Replacement Project. This work reduces the bridge to two lanes through the summer of 2027 while construction is taking place. While there is no direct overlap in the work areas of these two projects, the City is proactively adjusting construction schedules to minimize traffic disruptions along W. Reed Ave., E. Reed Ave., and E. Glebe Rd., which are important connectors to US-1.

More information about the construction schedule will be shared as plans are finalized. Additional details about the project are available on the City webpage.

See More Large Capacity Projects ➜

NEIGHBORHOOD SPOT IMPROVEMENT PROJECTS

City Prepares for Construction Phase of Edison Cul-de-Sac Drainage Improvement Project and 100 W Reed Avenue Curb Inlet Improvement Project

Betty King
Entrance to
Four Mile Run Park
ALEXANDRIA

The project will reduce flooding in the cul-de-sac near the Betty King Entrance to Four Mile Park

The City is finalizing the coordination of utility relocation for a pair of projects to provide flood relief near the Hume Springs neighborhood.

The Edison Street Cul-de-Sac Drainage Improvement Project is an approximate $1 million investment that will expand the capture of the storm sewer in the area. The City will also be adding inlets at the intersection of Edison Street and Mark Drive to capture and convey more stormwater.

Water and Gas utilities will need to be relocated prior to the City's construction to make space for the storm sewer upgrades. Washington Gas is expected to begin relocation in the spring. Water and gas relocation is expected to be completed later in fall 2026.

The City anticipates project construction to begin early 2027. City staff will be holding public engagement opportunities ahead of construction to share information about the project.

This project, along with the approximately $2.5 million 100 W. Reed Avenue Curb Inlet Improvement Project, received grant funding from the Virginia Department of Conservation and Recreation (DCR) Community Flood Preparedness Fund (CFPF) grant to accelerate these two portions of the future Edison and Dale Large Capacity project to provide flood mitigation to the Hume Springs area.

The 100 W. Reed Avenue Curb Inlet Improvement Project includes installing a new storm sewer along W. Reed Ave., as well as upsizing the sewer pipes and outfall at Four Mile Run.

City staff are in the final design phases and expect to complete construction documents by the end of the year.

As utility relocation is coordinated, the City is evaluating potential traffic impacts associated with the Mt. Vernon Avenue/ Arlington Bridge Road Bridge Replacement Project. The City will also be considering public feedback as relocation is scheduled.

City staff anticipate project construction to begin early 2028.

Utility Relocation Coordination Continues on Hume Avenue Bypass Project

New storm sewer and inlets will be installed along Raymond Avenue near the intersection with Dewitt Avenue

City staff are working with utility companies to prepare the area near Mount Jefferson Park for significant upgrades to the storm sewer system.

The Hume Avenue Bypass Project includes installing a new storm sewer along Hume Avenue to bypass the existing pipe to provide more capacity, as well as new storm sewers and inlets along E. Raymond Avenue to capture additional stormwater. While this project is underway, the City will also be upgrading the sanitary sewers along E. Raymond Ave. and resurfacing Hume Ave. This project is an approximate $5 million investment to mitigate flooding in the area.

Because of the large-scale infrastructure being added to the area, there is a significant amount of utility relocation required along Hume Ave, East Raymond, and Dewitt to make space for the storm sewer upgrades.

The City reached an agreement with Truist Bank to use its space during construction. This will help reduce impacts to residents in the area and preserve public parking.

The City expects fiber relocation to be completed early next year, at which time gas relocation will begin.

Design Revisions Under Review for Mt. Vernon Cul-de-Sac Inlet and Storm Sewer Improvement Project

The alley near the Mt. Vernon Avenue cu-de-sac will be improved to mitigate flooding near the adjacent homes

City staff are developing new design plans to reduce flooding near the Mt. Vernon Avenue cul-de-sac.

The approximate $2 million project includes new inlets and underground storage on Mt. Vernon Avenue and the adjacent alleyway to capture and convey more stormwater runoff. The alleyway will also be upgraded to improve surface drainage.

Water mains and laterals have been relocated along Mt. Vernon Ave to make room for the new storm sewer as part of a project to upgrade the system by Virginia American Water.

Following a meeting in October with the neighborhood, City staff have worked to develop alternative designs to address concerns raised by the community. These alternatives are now under review as City staff evaluate cost, performance, and community impacts.

The City plans to host a meeting with residents in the project area once this review is complete.

City Moves Forward with Mount Vernon Dual Culvert Replacement Project

The dual culvert can be seen at the headwall running under Edison Street

Design plans are underway for a project to mitigate flooding in the area between Mt. Vernon Avenue, W. Reed Avenue, and Edison Street.

City staff are reviewing the 60 percent design plans submitted by the project consultant. The submission includes more detailed project information, like location, function, cost, and possible issues.

The Mount Vernon Dual Culvert Replacement Project is an approximately $2.5 million investment to improve the capacity and flow of water through the culverts between Mt. Vernon Ave. and Edison St., which includes lining one pipe and upgrading the Corrugated Metal Pipes (CMP). Storm drain inlets will also be relocated.

The project team is working with utility providers to begin relocation coordination.

City staff plan to hold a community meeting to share information about the project design once finalized. When scheduled, meeting details will be posted to the project webpage.

First Design Milestone Under Review for Bellefonte Avenue Storm Drain Improvement Project

The project will reduce flooding near the intersection Bellefonte Avenue and Clyde Avenue

The City continues to make progress a project to improve drainage and reduce flooding near the intersection of Bellefonte Avenue, the gravel alley running parallel to Commonwealth Avenue, and E. Howell Avenue.

As part of the Bellefonte Avenue Storm Drain Improvement Project, the City will install a larger storm pipe along the gravel alley connecting Bellefonte Avenue and East Howell Avenue which will carry the majority of the flow that currently goes to the undersized pipe beneath homes in this area, which will remain. Larger inlets will also be installed to collect more stormwater runoff to reduce ponding in low-lying areas in E. Bellefonte Avenue.

City staff are reviewing the 30 percent design plans, which provide a general outline of the stormwater pipe alignment. This phase also begins to identify any potential conflicts with existing utilities in the project area.

Utility relocation is required for many of the Flood Action Alexandria projects to make space for new stormwater infrastructure. It can be a long process requiring significant coordination with providers. Because of this, the City has started this process to mitigate potential delays for this work during the construction phase.

City staff expect to host community meetings following the 60 percent and 90 percent design phases to share details about the project, timeline, and possible impacts to the neighborhood. Once available, information about these meetings will be posted on the project webpage.

Design Underway on Phase 1 Four Mile Run and Hooffs Run Inlet Installation and Enhancement Project

Inlets carry stormwater runoff from the surface and carry it into the storm sewer system underneath

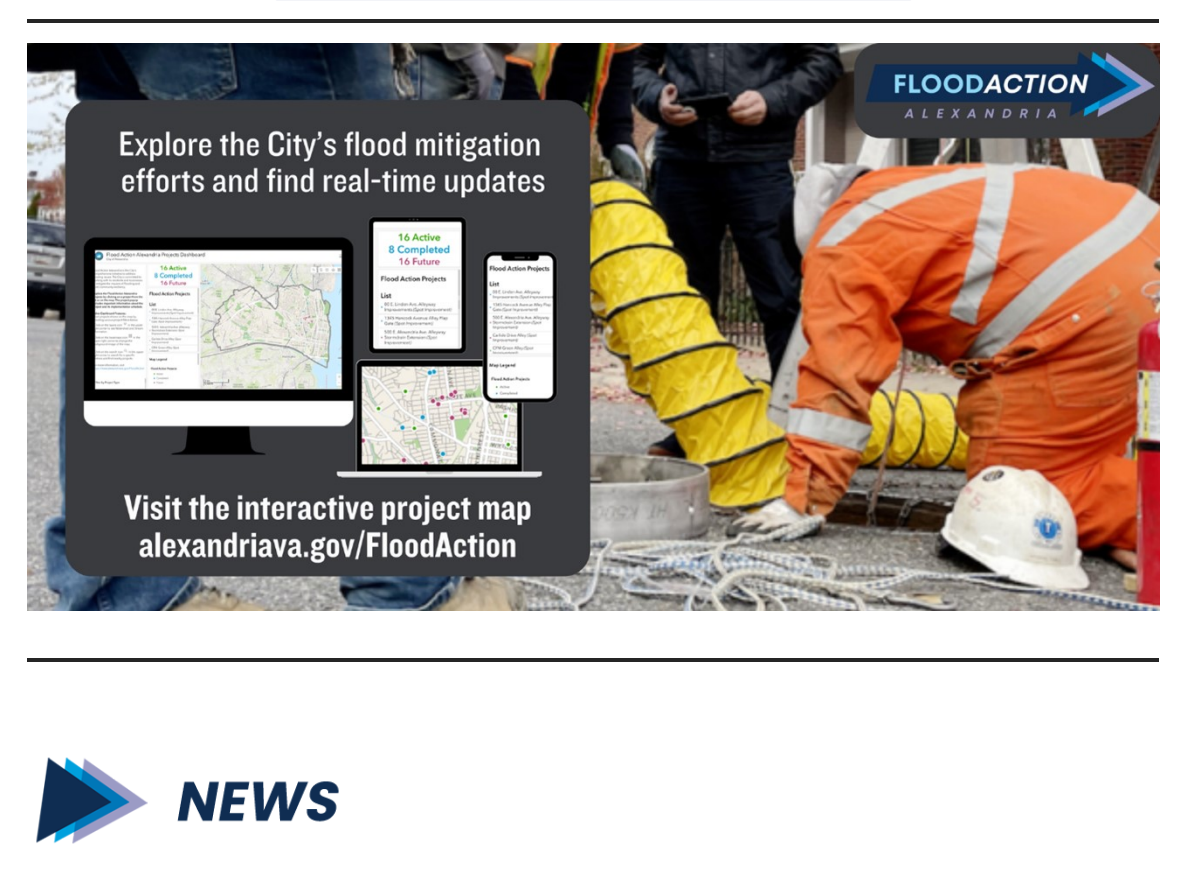
The City has launched a program to upgrade inlets to reduce localized flooding and improve stormwater management in the Hooffs Run and Four Mile Run watersheds.

The Four Mile Run and Hooffs Run Installation and Enhancement Project is supported by a Community Flood Preparedness Fun (CFPF) grant to make improvement to inlet capacity. The City will be investigating inlet capacity increases needed to support stormwater infrastructure upgrades in the two watersheds. The results of this project approach will also be used to rapidly identify areas citywide where inlets can be installed to mitigate future flooding issues.

The City has identified areas in the two watersheds where the existing sewer system can handle additional flow and will be installing 12 new stormwater curb inlets and replacing 63 inlets.

The design phase of the project is expected to be completed in about ten months.

See More Spot Improvement Projects ➜

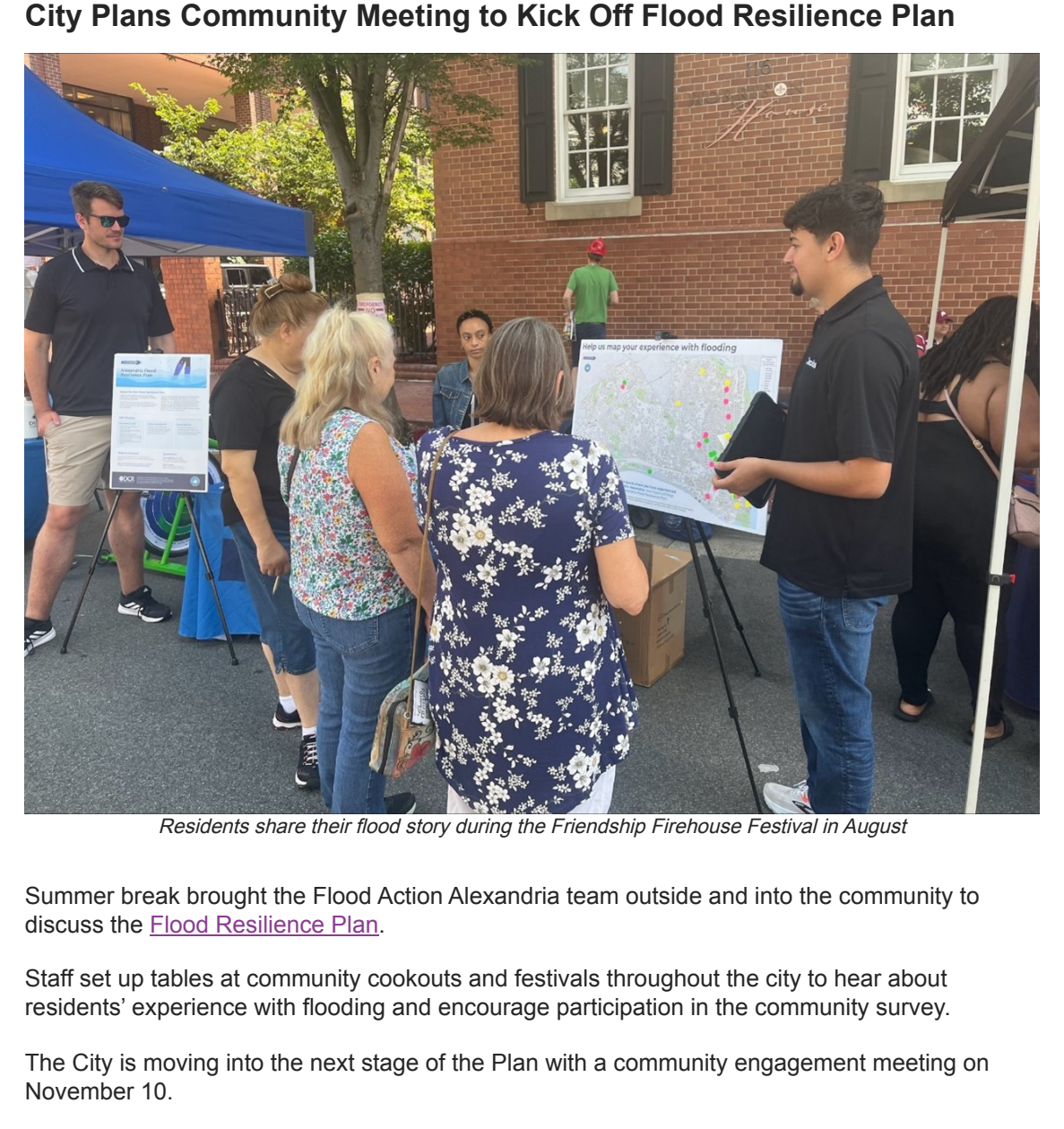


Explore the City's flood mitigation efforts and find real-time updates

Visit the interactive project map
alexandriava.gov/FloodAction

NEWS

City Plans Community Meeting to Kick Off Flood Resilience Plan



Residents share their flood story during the Friendship Firehouse Festival in August

Summer break brought the Flood Action Alexandria team outside and into the community to discuss the Flood Resilience Plan.

Staff set up tables at community cookouts and festivals throughout the city to hear about residents' experience with flooding and encourage participation in the community survey.

The City is moving into the next stage of the Plan with a community engagement meeting on November 10.

City staff will present information about the Flood Resilience Plan, including the purpose, goals, implementation strategies, and timeline, as well as the results gathered from the survey and summer tabling events. Staff will also be available to answer questions following the presentation.

The Flood Resilience Plan will address hazard identification, flood mitigation, flood preparedness and response, policies and regulations, funding strategies, and communications and information dissemination.

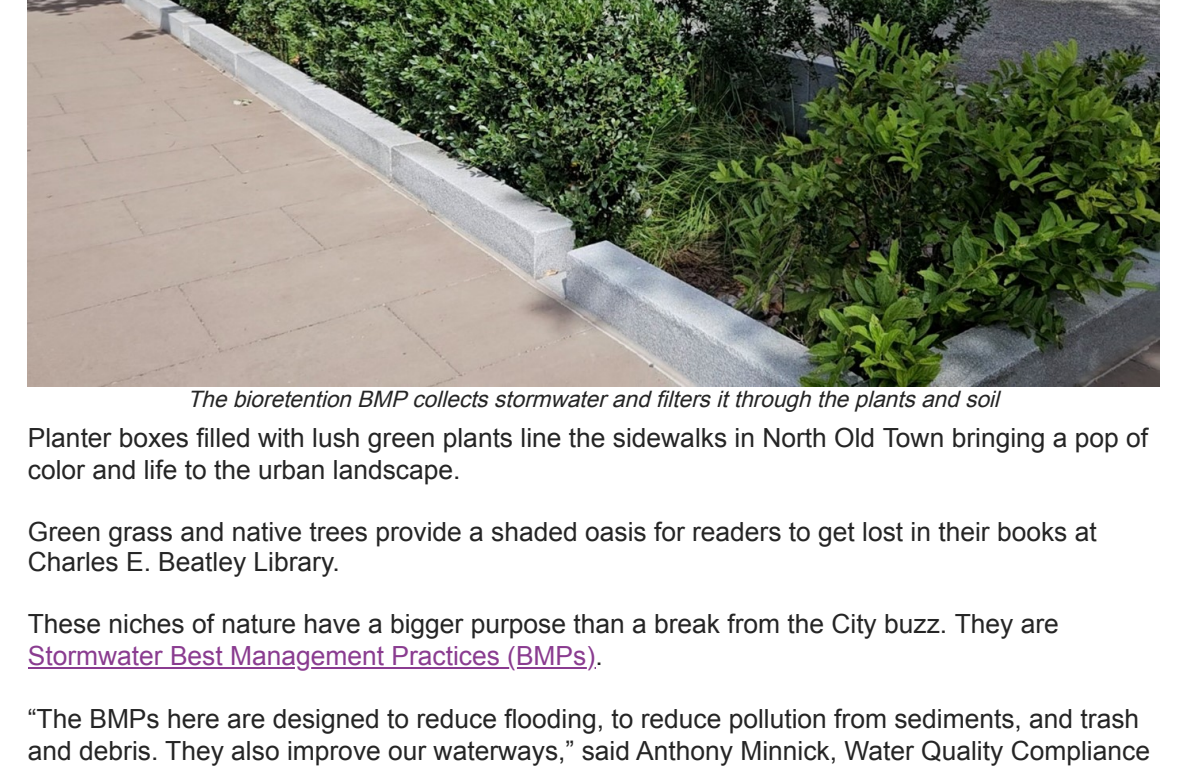
The community survey, which was conducted June through September, collected information about flood experience, when and where participants have seen flooding, and any personal damage that may have been incurred, like to their car or home. The City has received 106 responses to the survey.

The City received a $525,000 Community Flood Preparedness Fund (CFPF) grant from the state to develop the Plan. The grant is a 75/25 match, with the City providing $175,000 in local matching funds, to bring the total project funding to $700,000.

The community engagement meeting will be held at the Patrick Henry Community Center on November 10 at 7 pm. Virtual attendance will also be available.

Details about the Plan and the upcoming meeting are available on the Flood Action website.

Stormwater BMPs Go Beyond Water Quality Compliance to Build Flood Resilience



The bioretention BMP collects stormwater and filters it through the plants and soil

Planter boxes filled with lush green plants line the sidewalks in North Old Town bringing a pop of color and life to the urban landscape.

Green grass and native trees provide a shaded oasis for readers to get lost in their books at Charles E. Beatley Library.

These niches of nature have a bigger purpose than a break from the City buzz. They are Stormwater Best Management Practices (BMPs).

"The BMPs here are designed to reduce flooding, to reduce pollution from sediments, and trash and debris. They also improve our waterways," said Anthony Minnick, Water Quality Compliance Specialist.

A stormwater BMP is designed to capture rain before it enters the storm sewer system and local waterways to reduce flooding and pollution.

The City inspects more than 900 BMPs, with publicly-owned BMPs inspected annually and private BMPs inspected every five years. This includes a wide variety of types of BMPs, from bioretention facilities, green roofs, and rain gardens to permeable pavement and sand filters.

Regular inspections can make sure the BMPs are working properly, helping to improve the quality of water entering rivers and streams, and maintaining its capacity to soak up stormwater to prevent ponding or flooding.

Water Quality Compliance Specialist Anthony Minnick inspects the bioretention in North Old Town

During a recent inspection in North Old Town, Minnick walks down through a bioretention facility to take a closer look at the plants and soil.

"We look for things such as a buildup of debris and sediment, erosion, broken structures," Minnick said. "Something like splash blocks being filled with soil, health of vegetation, heat stress or dead plants, that's another process that we check out along with verifying it's the appropriate type of plants."

Installing and managing BMPs like these is one important way the City meets pollution reduction goals set by the Environmental Protection Agency (EPA) to protect the Chesapeake Bay.

But many of these practices can be installed on individual properties for a reduction in a property owners' Stormwater Utility (SWU) Fee.

As part of the Stormwater Utility Fee Credit Program, property owners can apply to receive a reduction, or "credit" of up to 50 percent on their SWU Fee by implementing eligible stormwater management practices that help to reduce stormwater runoff, improve water quality, and mitigate flooding.

The application window is open annually December 1 through February 15. Practices must be installed and maintained prior to applying for the program. The full list of eligible practices is available on the SWU Fee website.

To learn more about the City's BMPs or take a virtual tour, visit the Stormwater Quality webpage.

City Prepares Application for Community Flood Preparedness Fund Grant

Applications are being accepted for a state grant to help fund flood mitigation projects.

The Virginia Community Flood Preparedness Fund (CFPF) Grant is administered by the Virginia Department of Conservation and Recreation (DCR) to support local projects which reduce the impacts of flooding. The grant was established to "empower communities to complete vulnerability assessments, and develop action-oriented approaches to bolster flood preparedness and increase resilience," according to DCR.

The City is submitting applications for Round 6 to help support two projects, the Phase 2 Four Mile Run and Hooffs Run Inlet Replacement Project and the Valley Drive Storm Drain Improvement Project.

Inlets will be improved as part of the Four Mile Run and Hooffs Run Inlet Replacement Project

As part of the Four Mile Run and Hooffs Run Inlet Replacement Project, the City will be investigating inlets across the Four Mile Run and Hooffs Run watersheds to determine the appropriate improvements and capacity need. These upgrades will help reduce inland flooding across the watersheds. If awarded, the grant would reimburse up to 50 percent, or $1,173,000 of the estimated $2,346,00 total project cost.

The Valley Drive Storm Drain Improvement Project includes plans to install a new storm pipe along Crestwood Drive, relocate the existing storm pipe along Valley Drive, and install new inlets and manholes along Crestwood Drive and Summit Avenue. This work will improve drainage and reduce flooding in the area. If awarded, the grant would reimburse up to 50 percent, or $1.8 million of the estimated total project cost of $3.6 million.

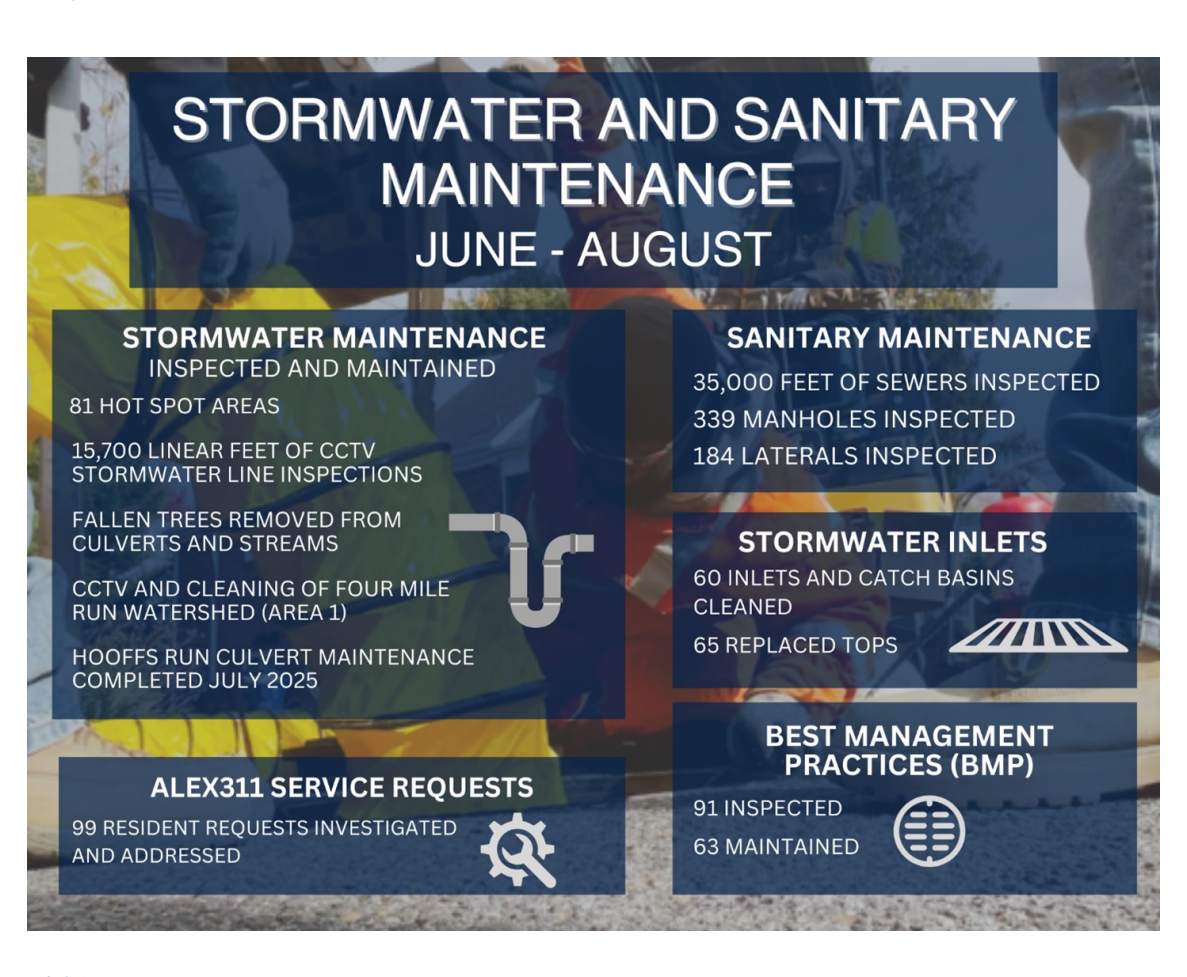
VALLEY
CRESTWOOD

The Valley Drive Storm Drain Improvement Project will mitigate flooding near Valley Dr. and Crestwood Dr.

Since the CFPF grant was established in 2020, the City has received more than $6.4 million in grants to support six flood mitigation projects, including the Edison Street and Dale Street Capacity Project, which combines the Edison Cul-de-Sac Drainage Improvement Project and the 100 W. Reed Avenue Curb Inlet Improvement Project, the Mount Vernon Dual Corrugated Metal Pipe Culvert Replacement Project, and the Flood Resilience Plan.

The City plans to submit applications this fall, with the Round 6 award announcement expected in the spring.

COMMUNITY MAINTENANCE WORK



STORMWATER AND SANITARY MAINTENANCE
JUNE - AUGUST

STORMWATER MAINTENANCE
INSPECTED AND MAINTAINED
81 HOT SPOT AREAS
15,700 LINEAR FEET OF CCTV STORMWATER LINE INSPECTIONS
FALLEN TREES REMOVED FROM CULVERTS AND STREAMS
CCTV AND CLEANING OF FOUR MILE RUN WATERSHED (AREA 1)
HOOFFS RUN CULVERT MAINTENANCE COMPLETED JULY 2025

SANITARY MAINTENANCE
35,000 FEET OF SEWERS INSPECTED
339 MANHOLES INSPECTED
184 LATERALS INSPECTED

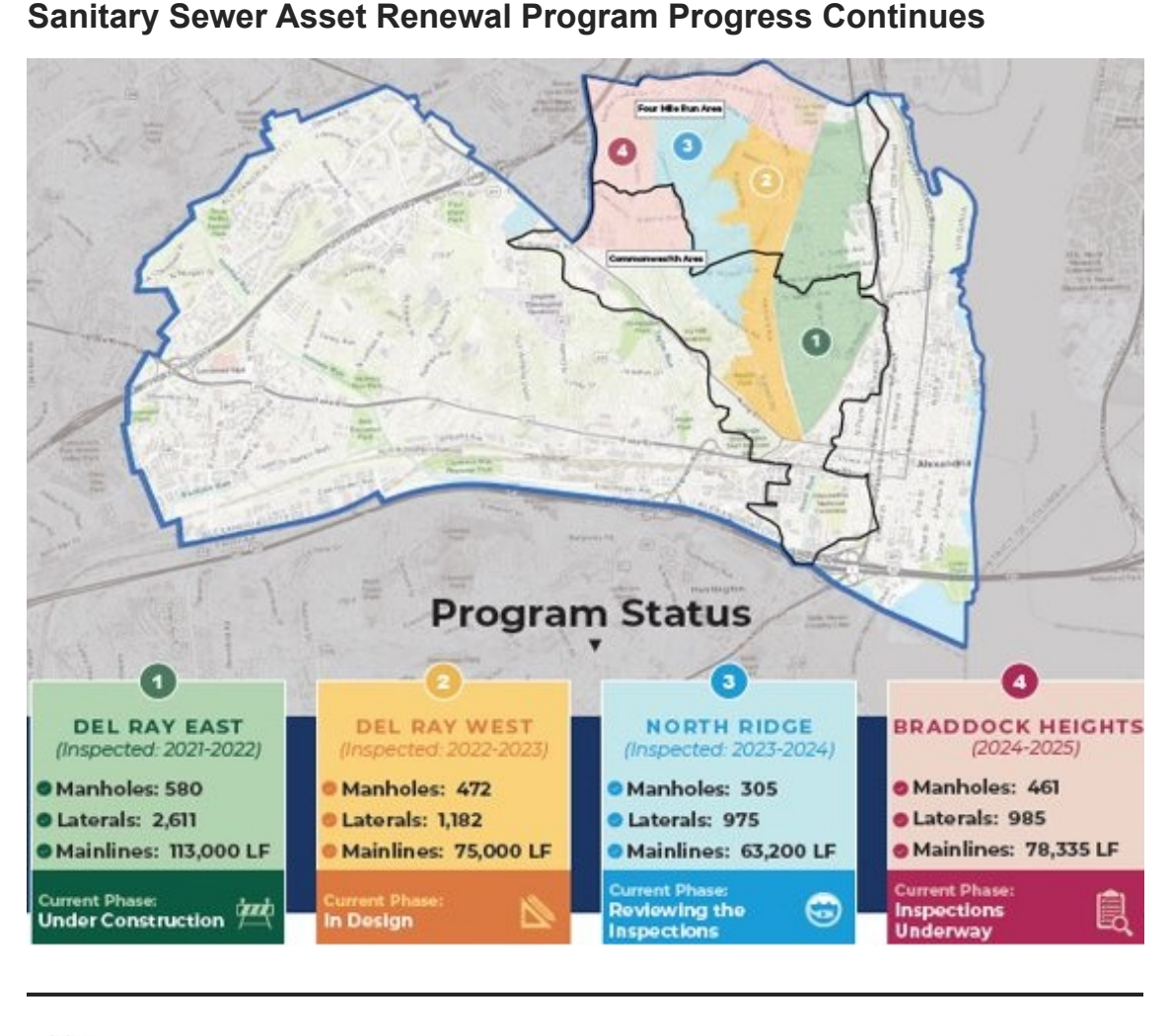
STORMWATER INLETS
60 INLETS AND CATCH BASINS CLEANED
65 REPLACED TOPS

ALEX311 SERVICE REQUESTS
99 RESIDENT REQUESTS INVESTIGATED AND ADDRESSED

BEST MANAGEMENT PRACTICES (BMP)
91 INSPECTED
63 MAINTAINED

SNAPSHOT

Sanitary Sewer Asset Renewal Program Progress Continues



Program Status

1 DEL RAY EAST (Inspected: 2021-2022)	2 DEL RAY WEST (Inspected: 2022-2023)	3 NORTH RIDGE (Inspected: 2023-2024)	4 BRADDOCK HEIGHTS (2024-2025)
Manholes: 580	Manholes: 472	Manholes: 305	Manholes: 461
Laterals: 2,611	Laterals: 1,182	Laterals: 975	Laterals: 985
Mainlines: 113,000 LF	Mainlines: 75,000 LF	Mainlines: 63,200 LF	Mainlines: 78,335 LF
Current Phase: Under Construction	Current Phase: In Design	Current Phase: Reviewing the Inspections	Current Phase: Inspections Underway

---

FROM THE FLOOD ACTION ADVISORY GROUP

Planning Fifty Years Into the Future

"Planning is real hard …especially when you're dealing with the future." Like a lot of things that Yogi Berra said, this statement is both funny and true.

Yes, Yogi, planning is difficult. And the most difficult part is forecasting what the world will look like ten, twenty, or even fifty years in the future. That is exactly what the Flood Action team is doing as they prepare Alexandria's Flood Resilience Plan. The Plan will be the City's roadmap for reducing the risk of flooding throughout Alexandria.

At the September meeting of the Stormwater Advisory Committee, we were briefed on the flooding risks that Alexandria will face in the year 2075.

The Flood Action team has forecast what severe storms and Potomac tidal levels will look like in 2075. As our climate changes, storms are dumping more rain in brief violent bursts, and at the same time, the tides on the Potomac are rising as the Atlantic's sea level reaches higher. The multi-million-dollar flood mitigation projects that are underway today need to last at least 50 years – and probably more like 100 years. So, we need to design them to hold back the stormwater surges that occur in 2075, not just next year or the year after.

Stormwater infrastructure is not like computer software. It's not easy to "upgrade" once the concrete has been poured and the pipes are buried underground. In fact, many of the flooding problems that Alexandria faces today are because our culverts and drainage systems were designed for stormwater volumes that were not considered when they were constructed decades ago.

The design of the first of the big flood mitigation projects – in the area around Commonwealth Avenue and Glebe Road – is nearing completion. In the next year, construction will begin. The detailed forecasts of the Flood Resilience Plan will help ensure that this project, and the others that follow, will have the capacity to handle the surge of stormwater that we can expect fifty years from now.

John Hill
Chair, Stormwater Utility and Flood Mitigation Advisory Committee

---

STORMWATER STEWARD

Water flows through Timber Branch alongside a wall of thick green foliage of more than 200 feet. The native vegetation helps stabilize the stream bank and prevents further erosion, protecting the nearby homes from flooding.

Vegetation is growing along Timber Branch behind homes on Oakland Terrace

Completed earlier this year, the Oakland Terrace Timber Branch Channel Wall Reconstruction is just one of the many projects managed by Ayoub Hassen.

"It's incredibly rewarding to see an idea evolve from paper into a structure that people can use," Hassen said. "Watching your hard work come to life and positively impact the community is truly fulfilling."

Hassen, who is originally from Ethiopia, began working for the City as a civil engineer seven years ago. He's now working as a Technical Project Manager for the Department of Project Implementation.

During his tenure, Hassen has worked on several flood mitigation projects, including repairs to Holmes Run Trail and the construction of a multi-cell box culvert, in addition to several pedestrian bridge replacement projects.

In August, Hassen completed work to replace the open storm sewer on Loyola Avenue with an underground drainage system.

The drainage improvement project was completed on Loyola Avenue

A born problem solver, Hassen says he followed his curiosity and drive to make a positive impact on the community in his pursuit of becoming an engineer.

Capital projects like the Loyola Avenue Storm Sewer Upgrade can have a significant impact on residents' lives, Hassen says, and serve as a reminder of what inspired him to become an engineer.

"It's humbling to see residents benefitting from safer roads, effective flood prevention, and improved parks and trails," Hassen said. "It's a powerful reminder that our work isn't just technical, it has a direct impact on peoples' lives. That's what motivates me every day."

Outside of his time at the office, Hassen enjoys hiking with his kids, and continues to be a positive influence mentoring and volunteering with his daughter in hopes of inspiring the next generation of engineers.

The Flood Action Alexandria newsletter is produced by City staff. Email us at stormwater@alexandriava.gov.