

FLOODACTION

ALEXANDRIA

AUGUST 2023 ISSUE #14

ABOUT US

ADVISORY GROUP

ENEWS

MANAGER'S MESSAGE



Alexandria community, I'd like to take this opportunity to provide a brief update on funding for the City's Stormwater Utility Fee (SWU) and the Flood Action Alexandria program. As part of the City's recently adopted FY2024 Budget, the City Council approved a 5% increase of the SWU fee charged to all property owners, consistent with the recommendation of the City's Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group. This will allow the City to continue to make progress on the Flood Action Alexandria program, including capital projects intended to address flooding in the community.

The City is also considering amending our local [Flood Mitigation Grant Program](#) this fall. When the City started the pilot grant program in 2021, only property owners that had recently experienced flooding were eligible. The new proposal would open the grant to all property owners, regardless of whether they have had documented flooding or not. Why is this important? Because all property owners are at risk of flooding, as recent flooding in New York, Vermont, and Bucks County, Pennsylvania, reminds us. Even if all our flood

projects were complete, if a similar event were to bring 3 to 5 inches of rain an hour to Alexandria, it would cause flooding throughout the city, including in places that may have never flooded before.

Therefore, it is important for people to evaluate their risk of flooding and try to take steps to reduce or minimize the impact. For more information on the Flood Mitigation Grant program updates, please tune in to a [webinar on August 15 at 7 p.m.](#) The Flood Mitigation Grant Program is a 50/50 match up to \$5,000, based on implementing eligible flood mitigation practices on your property.

To date, the City has approved more than 235 grants. We encourage all property owners to consider their individual situations and evaluate what steps they can take to reduce the impact of flooding on their properties. This is something that can be done in the short term; in the long term, the City will be developing a Flood Resiliency Plan for Alexandria over the next couple of years. Stay tuned to learn more about these projects, and how to engage in these processes, as we all work to address the challenging issue of flooding.

Bill Skrabak, Deputy Director of Infrastructure & Environmental Quality

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

Commonwealth, Ashby, and Glebe

The team for the Commonwealth, Ashby, and Glebe Flood Mitigation Project has continued to make progress on design. Recent work includes design plan development, storm sewer modeling, green infrastructure design, utility coordination, cost estimating, and permitting services.

Additionally, crews will be performing geotechnical boring work starting on August 2, 2023. Work is expected to last until September 15, 2023, weather permitting. Work at each boring site will involve a day of preparation and a day of drilling, which will take place approximately one week after the prep work. There are approximately 50 boring sites along the project corridor. This work is done to test the soils, with results used to inform the project design and construction methodology. Formal notices of this work will be sent to residents in the immediate vicinity of each site. Check out the [project webpage](#) for the latest updates.

The City is organizing a public open house where residents can come learn and ask questions about the project. More details about the open house to come. Please [sign up](#) to receive notices about the meeting. Civic association members are also encouraged to reach out to the City project manager to schedule a project presentation. Please direct any presentation requests or questions to jonathan.whiteleather@alexandriava.gov.

Hooffs Run Culvert Bypass



The Hooffs Run Culvert Bypass project team hosted a community field walk of the project area on July 17.

The design stage is underway for the [Hooffs Run Culvert Bypass Project](#), since kicking off in early June. The design team has been working on project planning, data collection and modeling of the existing culvert, and preliminary alternatives. The goal of this early-stage work is to understand the mechanisms of existing flooding and develop feasible alternatives for flood mitigation within the project area. The preferred alternative will then be developed into detailed construction drawings for construction and implementation.

The project team hosted a field walk of the existing and proposed culvert alignment on July 17. Several residents joined the team and provided valuable insights about the project area and impacts during prior flooding events.

See More Large Capacity Projects →

SPOT IMPROVEMENT PROJECTS

Timber Branch Headwall Completed



Before and after: Photos of completed culvert repairs at Timber Branch headwall.

The recent upgrade of the Timber Branch Headwall has been successfully completed. The headwall work will enhance inflow efficiency and reduce headwater upstream of the culvert. The modified inlet has been designed to accommodate a greater volume of water to flow through the culvert, resulting in less water going over or around the culvert. Additional modifications, including a reshaping of the edge of the culvert's top entry point, help the water flow smoothly and efficiently, reducing the potential for flooding.

A planting plan to comply with Resource Protection Area (RPA) requirements is also scheduled for the area around the culvert inlet. A contractor will execute the plan by planting a variety of native trees and shrubs to enhance the area's natural beauty.

For more information on how spot improvement projects are aiding areas affected by flooding in Alexandria, please visit the City's [spot improvement project page](#).

E Bellefonte Ave. and Valley Drive Neighborhoods



City engineers meet with residents of the Valley Drive neighborhood to evaluate the impact of flood damage.

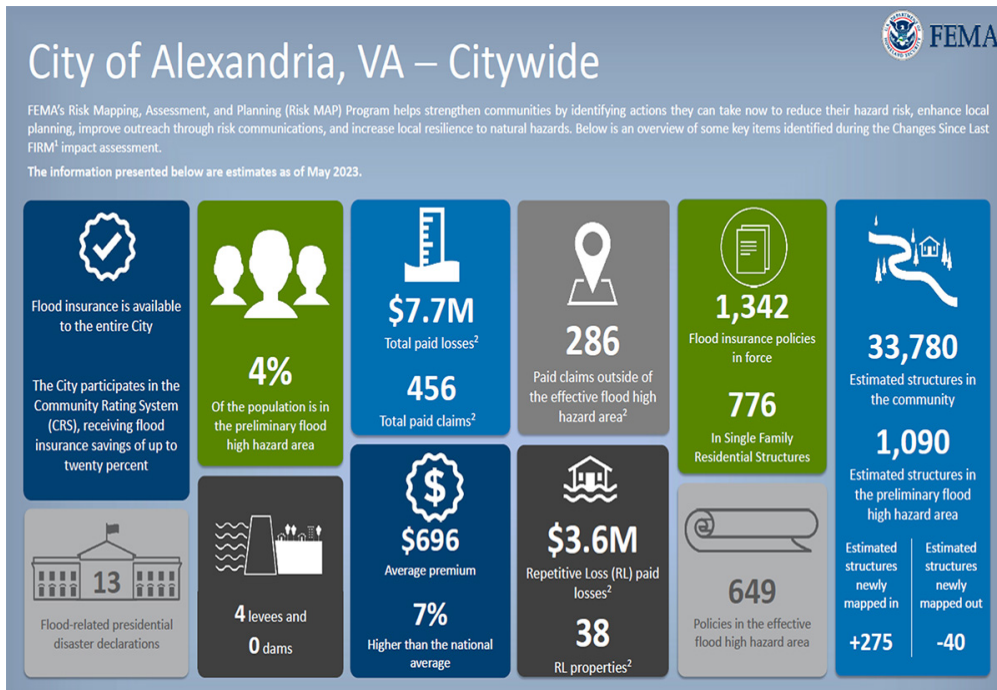
In June, City engineers from the Department of Transportation and Environmental Services and the Department of Project Implementation met with residents from the East Bellefonte Avenue and Valley Drive neighborhoods to discuss flooding affecting the area. The engineers listened to concerns and issues raised by the residents and provided updates on the project's progress. Although the design and solution development stages are still in the early phases, a pipe video survey and investigation were carried out for both neighborhoods last month.

[See More Spot Improvement Projects →](#)



NEWS

City Receives Letter of Final Determination for Revised FEMA Flood Maps



FEMA's summary dashboard presented to City officials in June 2023

On July 11, 2023, the Federal Emergency Management Administration (FEMA) published the Letter of Final Determination (LFD) certifying FEMA's new maps in Alexandria. The LFD provides the latest and best information on the FEMA-delineated Special Flood Hazard Areas (SFHA), or the 1%-chance-per-year flood inundation zones, also known as the 100-year floodplains. The new maps will become effective on January 11, 2024.

The letter, along with additional information about the city's FEMA flood zones, can be accessed on the City's [website](#).

Living with Floods

Last month, images in the media showed the city of Montpelier, Vermont, completely flooded after rain caused the Winooski River to overflow its banks. "I've never seen anything like it" was a common line from residents who were interviewed about the magnitude of the floods. Unfortunately, the Vermont flooding, and similar catastrophic events in the states of New York and Pennsylvania, are harbingers of a new normal in which storms are becoming larger, more intense, and occurring more frequently.

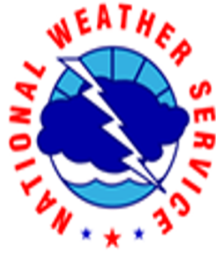
We have already experienced these trends in Alexandria, and we are implementing a comprehensive plan to improve our resilience. We are investing tens of millions of dollars in the largest stormwater infrastructure projects ever to be undertaken in the city. We are also implementing small improvements to our drainage system and maintenance processes to verify that the system operates at its maximum capacity. We have also implemented a public outreach campaign to inform residents of all activities, as well as a unique grant program to assist residents who install flood control measures on their properties.

In the design of our large and small infrastructure projects, we are considering the potential stresses that future climate may impose on our drainage system. We are accomplishing this evaluation through a robustness analysis that stress-tests our designs to deliver the most effective, and cost-effective, ways to handle storms as they get bigger and become more frequent.

Nevertheless, we must acknowledge that we are not able to eliminate flooding in Alexandria. We are designing our drainage infrastructure to safely pass the 10-year storm event; however, there is always the possibility that a larger storm event will occur and cause flooding. Cities around the world have come to a similar realization and have steered their flood control programs toward an approach known as "[living with floods](#)." This approach offers a different paradigm to rethink the level of protection we can cost-effectively provide.

We cannot control the weather that affects our city. However, we can assess our dwellings, critical facilities, and support infrastructure to reduce potential flood losses.

City Applies for National Weather Service StormReady® Certification



The City's Office of Emergency Management has entered an application for **StormReady**® certification from the National Weather Service (NWS). The StormReady program promotes improving storm-related operations, leading to a more resilient community.

StormReady uses a grassroots approach to help communities develop plans to handle all types of extreme weather—from tornadoes to winter storms. The program encourages communities to take a new, proactive approach to improving local hazardous weather operations by providing emergency managers with clear-cut guidelines on how to improve their hazardous weather operations. To be officially [StormReady](#), a community must:

- Establish a 24-hour warning point and emergency operations center;
- Have more than one way to receive severe weather warnings and forecasts and to alert the public;
- Create a system that monitors local weather conditions;
- Promote the importance of public readiness through community seminars; and
- Develop a formal hazardous weather plan, which includes training severe weather spotters and holding emergency exercises.

City Joins National Oceanic and Atmospheric Administration's Weather-Ready Nation Initiative



The City was recently recognized by the National Oceanic and Atmospheric Administration (NOAA) as a Weather-Ready Nation (WRN) Ambassador. NOAA, an agency of the U.S. Department of Commerce, works to strengthen partnerships with external organizations that are building community resilience in the face of increasing vulnerability to extreme weather and water events.

Building a Weather-Ready Nation™ requires more than government action alone. It requires innovative partnerships with other weather information providers (e.g., the Weather Enterprise), and with organizations across all segments of society for better community, business, and personal decision making.

WRN Ambassadors serve as change agents and leaders in their community. They inspire others to be better informed and prepared, thus helping to minimize, mitigate, or avoid the impacts of natural disasters. WRN Ambassadors can encourage these changes in their community in several ways, including:

- Setting an example by becoming “weather-ready” yourself (e.g., making employee preparedness a priority and having a disaster plan);
- Promoting Weather-Ready Nation key messages in your outreach activities;
- Providing incentives to your constituents and stakeholders to become more resilient; and sharing success stories with NOAA.

Be on the lookout for [WRN](#) messages in upcoming outreach.

Virginia Community Flood Preparedness Fund and Resilient Virginia Revolving Fund

The City has been awarded nearly \$6 million in matching grant funds from the Virginia Community Flood Preparedness Fund (CFPF) for flood mitigation projects, with the City committing about \$4.8 million in Stormwater Utility matching funds for a total of about \$10.7 million in project funding. A portion of this funding has helped accelerate the start of portions of the Edison and Dale Large Capacity project that was not scheduled to be funded until FY2026. The City received the matching funds from three rounds of funding; the fourth round of funding is scheduled to happen this fall.

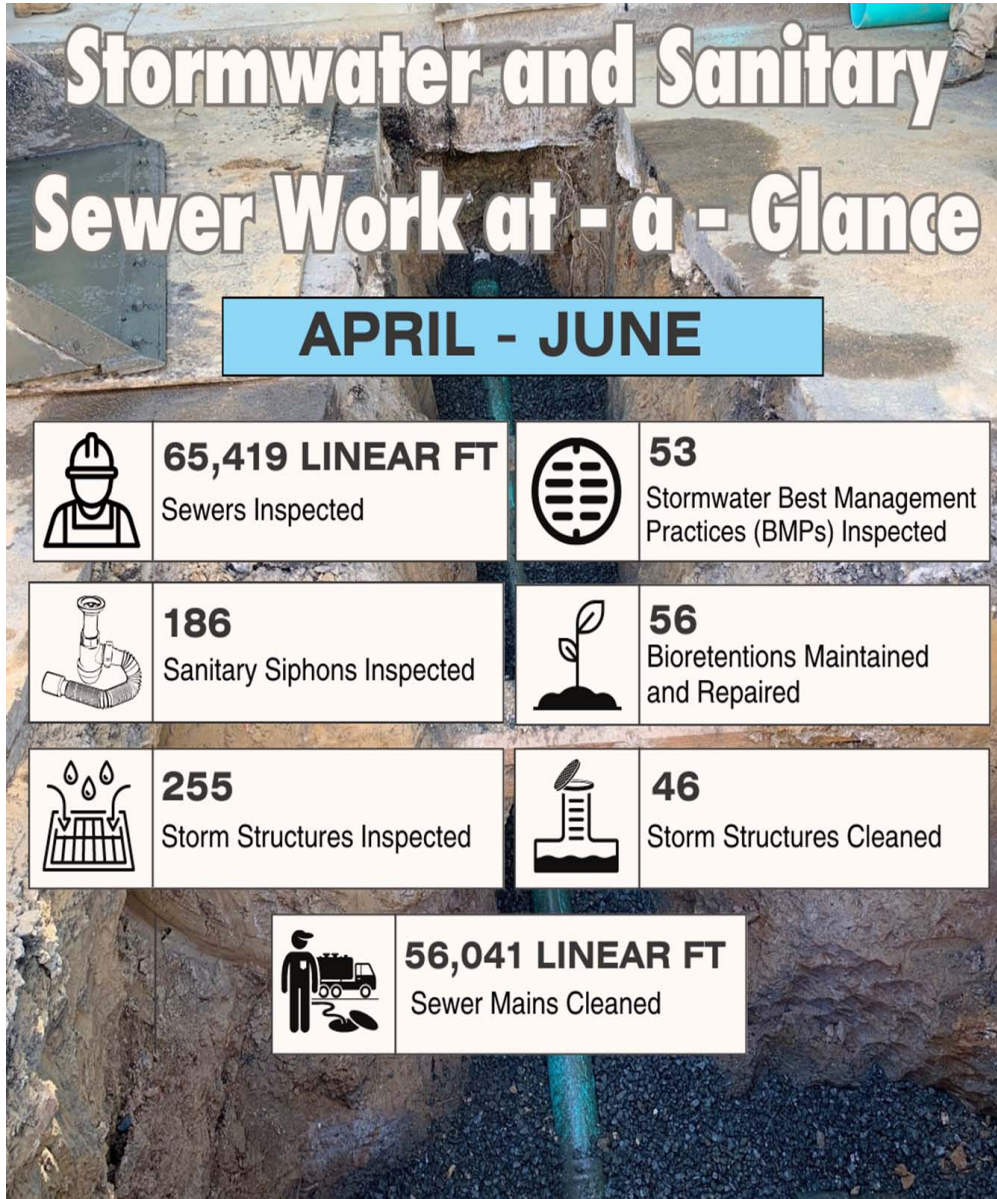
In June, the State Air Board voted to remove Virginia from the Regional Greenhouse Gas Initiative (RGGI), which partially funds the CFPF. The upcoming fourth round could be the last round of grant solicitations for the CFPF.

The 2022 General Assembly established the Resilient Virginia Revolving Fund (RVRF) effective July 1, 2022, with the Draft Manual posted for a 30-day comment period that also closes on August 6. The initial solicitation is

scheduled to occur later this fall. The new RVRF will focus on the provision of low-interest loans or grants to local governments to finance or refinance the cost of resilience projects.

The City will provide comments on the draft manuals through multiple channels and respond to the solicitations with eligible projects, as appropriate.

 **COMMUNITY MAINTENANCE WORK**



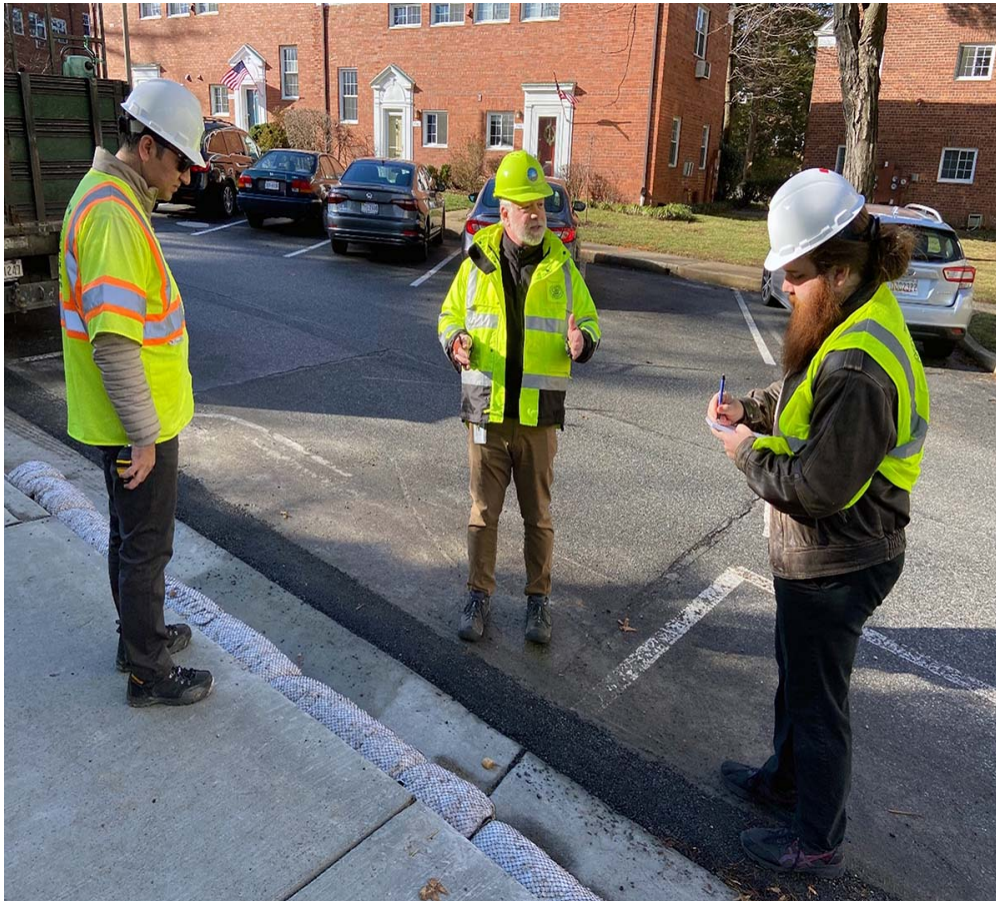
 **FROM THE AD HOC GROUP**

On July 5, 2023, the City Council voted to extend the functions of the Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group for another year and to take steps to make this group into a permanent commission.

The Ad Hoc group has been a valued partner as the City implements the Flood Action Alexandria program. In the first two years of the group's existence, the group has supported Flood Action through its direct connection with the community. The group has provided insight into neighborhood realities related to flooding and engaged both the state legislature and City Council on behalf of the program.

City staff are looking forward to continuing the partnership with the Ad Hoc Group in the years to come as the various components of the Flood Action Alexandria program continue to be identified and implemented.

STORMWATER STEWARD



Vernon Miles (right), from AlexNow, interviews Brian Rahal (center) and Civil Engineer Ehsanullah Hayat (left) about the [Parkfairfax neighborhood inlet](#) expansion in January 2023.

Civil engineer Brian Rahal has been with the City of Alexandria for nearly 13 years. His time with the City has been filled with increasing responsibilities, diverse projects, interaction with residents, and management of City operations. His responsibilities have expanded over the years, and Brian now dedicates a significant portion of his time to collaboration with the Department of Project Implementation and its project managers to plan, design, and construct large capital projects.

Brian is a seasoned professional with more than 26 years of experience in his field. One of his first major projects with the City was the Storm Sewer Capacity analysis, which he completed in 2016. This project currently serves as the backbone for major improvements to storm sewers and has been instrumental in driving significant capital improvement projects.

Brian's hard work has not gone unnoticed by the residents he has helped. One resident expressed, "It's been some time, but my partner and I were just reflecting on how wonderful it is that we no longer have to worry about our yard and basement flooding during rainstorms. Your diligent efforts in fixing the alley and installing a drain along Braddock Road truly made a difference. We are immensely grateful for everything you have done."

Brian's contributions to the city's infrastructure are invaluable. His expertise and dedication make him an integral part of the team, and his work has, and will continue to, directly impact Alexandria's growth and flood resilience for years to come.

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



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