



KEY UPDATES

New Public Rain Gauge Portal Launches

The City launched a new, [public-facing portal](#) that provides real-time data of the City's newly expanded network by adding six new rain gauges and two new streamflow gauges. The data is presented in dashboards specific to the eight major watersheds located within the City, as shown in the picture below:

A screenshot of the "City of Alexandria Rain Gauge and Stream Flow tool" dashboard. At the top left is the City of Alexandria logo. To its right is the "FLOODACTION ALEXANDRIA" logo. Below the logos is a welcome message and instructions on how to use the tool. A central section titled "WHICH WATERSHED AM I IN?" features a map of Alexandria with eight colored regions. Below the map is a grid of eight colored buttons, each representing a watershed: Hooff's Run (yellow), Taylor Run (grey), Potomac River (light blue), Backlick Run (green), Four Mile Run (dark blue), Strawberry Run (red), Cameron Run (orange), and Holmes Run (purple). At the bottom, there is a weather forecast for Alexandria, VA, showing a current temperature of 90° and a 7-day forecast with icons and temperatures.

In the event of a storm, individuals can visit this portal to obtain early warning information and data, such as how much rainfall has accumulated within multiple increments of time. Prior to the launch of the new portal, staff and residents often relied on rainfall data from National Airport and the USGS-maintained rain gauge at Four Mile Run. This expanded network provides more granular local data to help our community better respond and prepare for flash flood events.

Visit www.alxfloodwatch.onerain.com to check out the new portal and search for the watershed where you live to see the data.

City Accepting Applications for Flood Mitigation Pilot Grant Program

The City began accepting applications for its new [Flood Mitigation Pilot Grant Program](#) on Monday, August 30. The program offers matching reimbursement grants to property owners who have installed flood mitigation measures on properties impacted by recent flash flooding events dating back to July 2019. Property owners may receive up to 50% reimbursement for completed project costs, up to a maximum of \$5,000, for implementing [eligible floodproofing measures](#) on their property.

The City encourages property owners to implement floodproofing and mitigation techniques as the first line of protection as the City works to implement spot improvement projects and larger flooding capacity capital infrastructure projects to help mitigate flooding. Curious to see what some individuals are doing for flood mitigation within the City? Check out these examples:



If you are interested in applying, please visit the [Flood Mitigation Pilot Grant Program webpage](#) to apply and review information about the application process. Individuals with questions regarding the program and/or application can view the [Frequently Asked Questions](#) or send questions via email to floodgrant@alexandriava.gov.

Please note that applications are being accepted on an ongoing basis and that work must be completed along with all applicable Code Administration and Planning and Zoning approvals, including BAR. We are excited about the overwhelming response, with nearly 100 applications received to date, and appreciate your patience during this time as staff quickly work to get the applications processed.

Capacity and Spot Improvement Projects Updates

Storm sewer capacity projects are large infrastructure projects that help address systemic flooding issues in the City. The [FY 2022 – FY 2031 Stormwater Management Utility Ten-Year Plan Capital Improvement Program](#) includes funding for the [top 11 prioritized storm sewer capacity projects](#). Funding for the design of the first three prioritized projects is provided in the [FY 2022 Approved Budget](#).

Flooding Capacity Projects Information

Commonwealth Avenue & E. Glebe Road (\$34 million) and E. Glebe Road and Ashby (\$16 million): In the Four Mile Run watershed, these two projects are being combined under one large capacity project due to their proximity to one another. This project is expected to increase the capacity, or size, of the stormwater sewer pipes; create opportunities for stormwater to be stored and released slowly over time; and incorporate “green infrastructure” practices, such as permeable pavement, that allow the stormwater to soak into the ground, reducing runoff.

Status: Design procurement is anticipated this fall via a Request for Qualifications (RFQU). The design phase typically takes up to two years, followed by construction procurement, then construction. Considerations of increasing the design storm standard will be incorporated into the design phase and assessed for the greatest cost-benefit value to the City.

Hoof’s Run Culvert/Timber Branch Bypass (\$60 million): Located in the Hooff’s Run watershed, this project will construct a new storm sewer pipe system to transport stormwater from Timber Branch away from the Hooff’s Run Culvert. This “bypass” system is anticipated to help better manage flows from the Timber Branch watershed.

Status: The City anticipates the design procurement to be released this fall via a Request for Qualifications (RFQU). The design phase typically takes up to two years, followed by construction procurement, then construction. Considerations of increasing the design storm standard will be incorporated into the design phase and assessed for the greatest cost-benefit value to the City.

To learn more, visit alexandriava.gov/134317.

American Rescue Plan Act of 2021

The City has identified several spot improvement projects that will be accelerated using [American Rescue Plan Act of 2021](#) (ARPA) funding. The City also has submitted a project to

receive earmark funding through the legislative process. This work will mitigate flooding for the affected residential properties and include continued community engagement during the design and construction process.

ARPA Spot Improvement Projects Information

Hume Avenue Inlets and Check-valve: This project will include installing additional inlets and larger inlets. A proposed check-valve and upgraded structure may occur on private property pending approval.

Preliminary schedule: Design will begin this fall with construction completed in summer 2022.

Hume Avenue Bypass: This project will provide flooding mitigation for the residential homes fronting Hume Avenue. The main work to be completed is to install an alternate stormwater pipe along Hume Avenue to bypass the existing pipe in the backyards of the townhomes on the south side of Hume. There will also be additional inlets included on Dewitt, regrading of Hume Avenue, and raising of the curb on both sides of Hume Avenue.

Preliminary schedule: Design will begin this fall with construction completed in early 2023.

Mount Vernon Cul-de-sac Drainage Work: This project will provide flooding mitigation for odd-numbered townhomes (19-33) on Mount Vernon Avenue. The work will include alley grading, drainage improvements, sanitary backflow installation in the collection system, and storage.

Preliminary schedule: Design has already begun with construction to be completed in spring 2023.

Legislative Earmark

Clifford Avenue, Fulton Street, and Manning Street: Additional inlets will be installed along with new storm pipe in the alley north of Manning Street. Additional work may include full alley reconstruction with potential green infrastructure techniques.

Preliminary schedule: Award is planned for October 2021 with design beginning soon after, and construction completed early spring 2022.

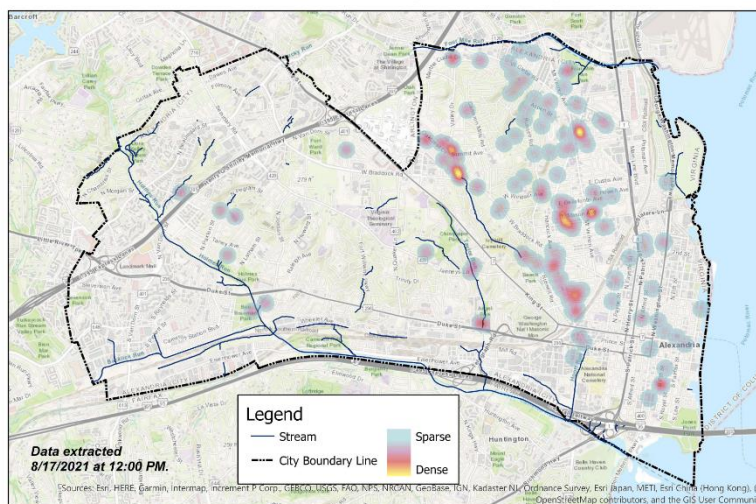
August 15th and September 16th Flash Flooding Information

Starting around midnight on August 15, Alexandria experienced flash flooding from an intense, severe storm. Preliminary rainfall data from the newly installed City rain gauge network indicated that between 3 to 5 inches of rain fell in about an hour, with very heavy rainfall rates for 30 minutes. The storm caused widespread flooding, as well as power outages, sanitary backups, road closures, displaced manhole covers, traffic light outages, sinkholes and other impacts on City infrastructure.



August 15th, 2021 Flash Flooding Event

Alex311 Service Request Heat Map



The highest rain gauge reading was at George Mason Elementary, which recorded a massive 3.19 inches in 30 minutes, 4.43 inches in one hour, and 5.19 inches in two hours, finishing the event with a total of 5.47 inches at the six-hour mark. From a historical perspective, these rainfall intensities correspond to a 0.5%-chance-per-year – 0.2%-chance-per-year storm event based on the City’s Intensity, Duration, Frequency (IDF) curves. The amount of rainfall from this event corresponds to approximately the amount of rain the City receives in one month. These climate-change-induced flash floods are much more intense, bringing more rain in less time and are therefore less predictable and more dangerous.

On September 16th, the City experienced another severe storm that caused flash flooding, which has been characterized as a 10%-chance-per-year storm event according to the City’s IDF curves. The main area impacted during this storm event was near the Beach Park gauge, which received 2.58 inches of rain within 24 hours. Additionally, SE Del Ray received intense rainfall, according to Alex311 reports that came in.

As a reminder, hurricane season is still underway, which sometimes brings heavy rainfall that can lead to flash flooding. Flash floods develop quickly during periods of heavy rainfall, sometimes in just a few minutes. Staying informed to prepare for flooding is one of the best ways to protect yourself and your property. Sign up to receive severe weather alerts through the free [Alexandria eNews service](#). Consider having a weather radio on hand to receive all watches, advisories or warning messages from the National Weather Service and subscribing to receive text messages or email alerts from a private weather app.

ADDITIONAL UPDATES

Reminder: FEMA Flood Re-Mapping Appeal Period Deadline Approaching

The deadline to submit appeals pertaining to the 2022 Federal Emergency Management Agency (FEMA) floodplain re-mapping effort for Alexandria is this month. If you want to submit an appeal, **the City must receive it by 5:00 p.m., October 20, for submission to FEMA.**

Residents may submit an appeal if they believe the modeling or data used to create the map is technically or scientifically incorrect. However, an appeal must include technical information, such as hydraulic or hydrologic data to support the claim. Appeals cannot be based on the effects of proposed projects or projects started after the study is in progress.

Please submit appeals via email to stormwater@alexandriava.gov by the deadline. For more information, visit alexandriava.gov/FloodMap.

New Flood Action Alexandria Program Manager Named

Daniel Medina, Ph.D., P.E., has been appointed as the City's first Flood Action Alexandria Program Manager, effective October 11. In this new position, Dr. Medina will work across City departments to ensure successful delivery of the flood mitigation program and manage Alexandria's stormwater capital project portfolio. He will also address the concerns of Alexandria's residents by serving as liaison to the City Council-appointed Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group.

Dr. Medina's experience encompasses an extensive array of water resources areas, including stormwater management, flood-risk management, climate resilience and watershed restoration.

"Dr. Medina's broad experience in numerous aspects of water and environmental engineering,

especially in urban areas – along with two decades of program management experience – make him well positioned to help deliver the City’s critical stormwater and flood-mitigation projects,” said Alexandria City Manager Mark Jinks.

Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group Meeting

As part of [Flood Action Alexandria](#), the [Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group](#) will meet on **Thursday, October 7 at 7:00 p.m.** Additional meeting details can be accessed via the [Alexandria City Calendar](#).

Meeting materials will be posted [online](#) prior to the meeting. Members of the public who wish to provide comment are encouraged to contact Matthew.Landes@alexandriava.gov no later than 24-hours before the meeting.

The purpose of the Advisory Group is to:

- Review and advise on flood mitigation activities
- Monitor and measure progress of the City’s flood mitigation efforts
- Serve as a general body of receipt and dissemination of information for the City’s flood mitigation efforts
- Review and provide recommendations on proposed Stormwater Utility operating and capital budgets

For additional information, visit the Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group [webpage](#).

Community Maintenance Work

The City performed maintenance work on existing stormwater structures to help mitigate flooding. Here's what was done throughout the months of June, July, and August:

- 1,160 storm inlets inspected
- 451 storm inlets cleaned
- 5,452 linear feet of storm pipe inspected
- 4,805 linear feet of storm pipe cleaned
- 787 miles of street sweeping completed
- 14 stormwater structures repaired
- 1700 Dewitt storm pipe repaired

Additionally, before the remnants of Hurricane Ida made its way through the Washington metropolitan area in September, the City made over 2,500 sandbags and distributed over 1,500 of them to the community.

STAY CONNECTED

Be sure to follow us on [Facebook](#), [Twitter](#), and [Instagram](#) to get additional updates on flooding and stormwater management from the City's Department of Transportation and Environmental Services.