

Annual Report To Alexandria City Council

April 13, 2026



Intersection of Commonwealth Avenue & Glebe Road, August 14, 2023

Stormwater Utility and Flood Mitigation

Advisory Group

Council Member John Chapman

Mr. John Hill, Chair

Ms. Katherine Waynick, Vice Chair

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Mr. Mark Tonsetic

Ms. Christine Thuot

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Ms. Janette Shew

Question 1: Is the City's investment in stormwater mitigation directed at the most urgent problems?

The Facts



For the past several years, the most severe stormwater flooding in Alexandria has occurred around the intersections of Commonwealth Avenue and Glebe Road, Pitt and Gibbon Streets, and along Hooff's Run.

Site preparation work has begun on the Commonwealth/Ashby/Glebe project. Relocating water and sanitary lines and coordination with traffic projects in this busy area is underway. Design has been finalized; procurement of the construction contractor will begin once utility relocation is complete.

Finding solutions to the stormwater flooding at Pitt and Gibbon Street and along Hooff's Run is proving to be considerably more difficult than originally thought. These two problems cannot be solved cost-effectively with large construction projects. Instead, the City is exploring possible changes to the Flood Mitigation Grant program to better support property-level flood-proofing measures by impacted homeowners.

The City's commitment to projects in the most-flood-prone areas is reflected in the proposed budget. With design complete, the true cost of the Commonwealth/Ashby/Glebe project is better known. The FY2027 Capital Improvement Program

(CIP) shows a \$15 million increase in the capital budget for this project. Funding for mid-sized projects in the Four Mile Run watershed, along Hooff's Run, and in the Nethergate neighborhood continue to be funded in the FY2027 Capital Improvement Program.

Opinion of the Committee

The Committee agrees that the Flood Action Program is starting with the most urgent flooding problems facing Alexandria. The CASSCA study of 2016 identified the Four Mile Run (East) and Hooff's Run watersheds as the city's most flood-prone areas. That was evident during the severe rainstorms of 2020, 2021, and 2023.

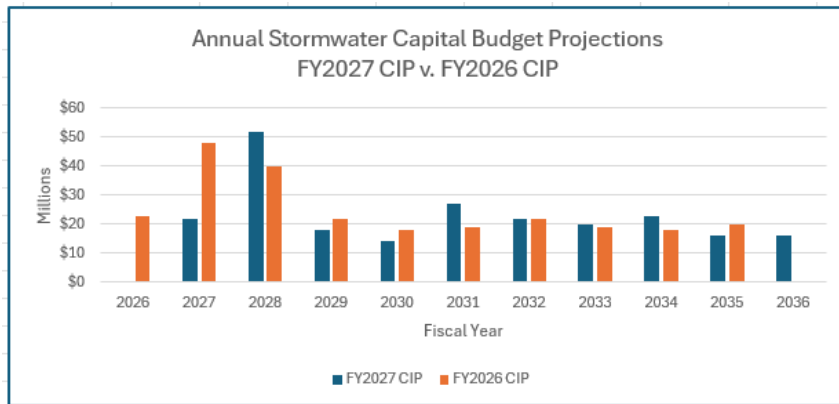
The Committee members from these watersheds acknowledge that the Flood Action Program is making visible progress in their neighborhoods. The rapid completion of smaller “spot projects” has created a sense that things are getting done. The site preparation work for the Commonwealth/Ashby/Glebe project in the Lynnhaven neighborhood has signaled that even more activity is on the way. Residents in the Nethergate development and along Valley Drive are seeing projects getting started in the neighborhoods as well. In Rosemont, residents acknowledge that the considerable maintenance improvements to the existing Hooff’s Run culvert have reduced stormwater flooding.

The Committee strongly approves of expansion of the Flood Mitigation Grant program to assist homeowners in areas such as Pitt and Gibbon and the lower sections of Hooff’s Run, where no single project can be constructed to solve the flooding problem. Although property-specific flood mitigation should be considered only as a last resort, it may be much less costly than big engineering projects where only a limited number of properties are involved. The Committee acknowledges that such changes to the program should be based on careful analysis to ensure that the grants motivate the most efficient flood-proofing investments by homeowners.

Looking to the future, the Committee suggests that City engineers look beyond the CASSCA Study to identify the next set of large capacity-building projects. The Committee noted that the 2016 study focused solely on sewer pipe diameters and not actual flooding patterns. In identifying future projects, the City should evaluate areas that may have been overlooked in the CASSCA Study. The flooding at the intersection of Braddock Road and West Street is, perhaps, the most notable example.

Question 2: Are the planned expenditures adequate to address the stormwater flooding problem?

The Facts



The City Manager is proposing a slight decrease in Alexandria’s investment in stormwater infrastructure over last year’s Capital Improvement Program (CIP).

Last year’s CIP called for a total of \$249 million in stormwater capital projects for the ten-year period FY 2026 through FY 2035.

This year’s proposed CIP in the FY 2027 budget calls for a total of \$230 million over the ten-year period from FY 2027 through FY 2036.

This slight decrease is certainly due to fact that over half of the \$180 million in funds already allocated to stormwater projects are currently unexpended or uncommitted. As of September

2025, over \$120 million in unexpended or uncommitted funds are available for stormwater capital projects.

Opinion of the Committee

When the Flood Action Alexandria Program was launched in 2021, it proposed a ten-year \$260 million investment in stormwater infrastructure. Keeping in mind the significant backlog of unexpended capital funds, the Committee acknowledges that the proposed annual budget for FY 2027 and the 10-year CIP continue to honor that commitment.

The Committee recognizes that designing the projects to solve Alexandria’s stormwater flooding problem is more difficult than originally thought when the Flood Action program was launched. The design phases of large projects like Commonwealth/Ashby/Glebe project are taking considerably longer than originally estimated – causing the most expensive phase of the projects, construction, to be delayed. This is illustrated by the chart on the previous page, where capital expenditures planned for FY 2027 are pushed into FY 2028 and beyond.

At this stage of the Flood Action program, the Committee believes that Alexandria is adequately funding the correct level of construction activity. The large projects, especially, are disruptive to the neighborhoods and traffic of Alexandria. More than two concurrent large projects may be more disruptive than Alexandria residents are willing to accommodate.

The Committee acknowledges, however, that the ten-year CIP is based on today’s best estimates of the future cost of large stormwater projects. As evidenced by the Commonwealth/Ashby/Glebe and other projects, the Committee understands that the total cost of these projects may increase as designs are further developed and total construction costs are better understood.

Question 3: Is the City making sufficient progress in addressing the problem?

The Facts

Alexandria has made considerable progress in addressing the backlog of smaller “spot improvement” projects. At the start of the Flood Action Program 2021, twenty-seven spot

Spot Projects	
Construction Complete:	14
In Design or Construction:	14
Not started:	4

improvements were identified. Since then, the number of spot projects has grown to thirty-two as more opportunities for flood mitigation have been identified. As of March 2026, fourteen have been completed, fourteen are actively under design or construction, and four have not been started.

The aggressive maintenance program for both the stormwater and sanitary sewer system is already having a beneficial effect. The improvement to Hooff’s Run culvert was mentioned earlier. The city-wide effort to combat stormwater inflow into the sanitary system through manholes and leaky connection pipes will ultimately reduce basement back-ups during the most severe rainstorms.

In the past year, the design for the large capacity-building project at Commonwealth/Ashby/Glebe has been completed and the relocation of water supply, sanitary sewer and electric power utilities

has begun. At the same, the engineering analysis of flooding at Hooff's Run and Pitt and Gibbon Streets has concluded that the construction of a "single project" solution is not feasible. The experience of the past year has shown that large capacity-building projects are more complex, expensive, and time-consuming, than estimated in the original Flood Action Plan of 2021. With design now complete, the total cost of the Commonwealth/Ashby/Glebe project cost is better understood. It has increased from its original estimate of \$48 million to \$79 million – and a construction contract has not yet been awarded. And the relocation of utilities for the project has added a multiple-year delay before construction can actually start.

Opinion of the Committee

The Committee applauds Alexandria's progress to date. Visible and impactful work is getting done. Nonetheless, the experience of the past year has revealed to the Committee that truly expanding Alexandria's capacity to drain stormwater in the most flood-prone neighborhoods will be far more difficult than originally thought. Constructing the big capacity-building projects – like Commonwealth/Ashby/Glebe – will take longer and cost more than planned.

When launched in 2021, the Flood Action Program envisioned a portfolio of proactive maintenance, a number of small "spot" projects, and twelve large capacity-building stormwater projects with a total price tag of approximately \$260 million. The original plan estimated that seven of the large projects would be complete by 2033 and the remaining five would be in active construction in 2033. The Flood Action Program was conceived as an intense ten-year effort with a prescribed number of large projects and a fixed end-date. The detailed engineering work of the past year suggests that the plan was, certainly, too optimistic.

The committee urges City Council to re-think the Flood Action Program in two important ways:

1. Making Alexandria truly flood-resilient will take longer than the 10 years originally envisioned in the Flood Action Program. The Flood Action Program should be re-thought as an on-going portfolio of flood-mitigation projects that address ever-worsening rainstorms and that fits within the financial constraints of the Stormwater Fee and the city's capacity to execute large construction projects. As designs of the large stormwater projects are completed and their true cost and timelines better understood, the Committee should work with City staff to continually update the ten-year capital improvement program and the Stormwater Fee needed to finance it.
2. Home and business owners in Alexandria's most flood-prone areas need more incentives to invest in flood improvement measures for their properties. Although the city's projects will address much of the flooding problem, many home and business owners will not see relief for years. And for some, the flooding will never be totally eliminated.

During Committee meetings, some residents testified that they had spent more than \$50,000 to floodproof their homes. Alexandria's floodproofing grants are only a partial incentive for home and business owners to make necessary improvements – they provide no more than \$5,000. More significant relief should be provided for the most flood-prone areas. As of December 2025, the floodproofing grant program had over \$2 million in unexpended/uncommitted funds. Alexandria should explore ways to target the grant

program to specific areas with the most severe and persistent flooding. Grants can create a “multiplier effect” that encourages private investment in flood mitigation that is several times greater than direct public expenditure.

Climate change will not stop in ten years – it is unreasonable to think of Alexandria’s Flood Action Program as having an end-date. These two suggestions enable the continuous public and private investment that is necessary to meet the challenge of stormwater flooding in Alexandria.