# Stormwater Utility and Flood Mitigation Advisory Committee

March19, 2025 Meeting



## **Tonight's Agenda**

- 1. Welcome (7:00pm, 5 min)
- 2. Approve minutes of January meeting (7:05pm, 5 min, John)
- 3. Program update from City Staff (7:10pm, 40 min, City staff)
  - Large capacity projects: Commonwealth/Ashby/Glebe; Hooffs Run Culvert Bypass, Pitt & Gibbon
  - Spot Improvements
  - Sanitary Sewer Renewal program
  - Communications
  - Maintenance
- 4. Mitigation grant program
- 5. Discussion of Proposal for Targeted Incentives for Chronic Flood Zones (7:50, 40min)
- 6. Discussion of Committee testimony for FY2026 budget hearings (8:30pm, 10min)
- 7. Outline of Committee's Annual Report (8:40pm, 10min)
- 8. Public comment (8:50pm, 10 min)
- 9. Adjourn (9:00pm)



## Welcome remarks



## **Review of Minutes**



## Program Update from City Staff



## Flood Action Progress Report: Commonwealth, Ashby, Glebe

## Large Capacity - Commonwealth Ave & E.Glebe/Ashby St & Glebe Rd

### Project Webpage

### **Project Description**

https://www.alexandriava.gov/stormwatermanagement/commonwealth-ashby-glebe-flood-mitigation-project This project will improve storm sewer system to mitigate flooding for the future 10-year design storm at two problem areas: the intersection of Commonwealth Ave and Ashby St, and at the intersection of Ashby St and E Glebe Rd

### Project Information

Current Phase: Design

Total Planned Budget: \$47,166,354.00 Funding Sources: SWU, CPFP

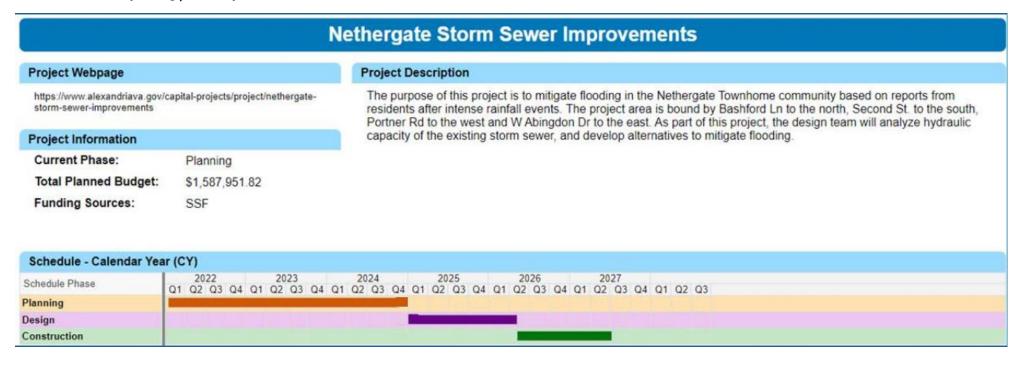
Schedule - Calendar Y	ear (C	Y)																											
Schedule Phase		2020			2021		2022			023			024		202			2026			2027			2028			202		
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Planning																													
Design																													
Construction																													

- Continuing 90% design progression
- Utility test pits March April
- Continued utility coordination
- Public Meeting 2/19/25
- Coordinating with civic associations for targeted outreach
- Design completion anticipated in late Summer/early fall



## Flood Action Progress Report: CSS

- Pitt & Gibbon (\$20-25M) CSO surcharge mitigation. Project team reviewing alternatives to mitigate flooding.
- Nethergate (\$5M) CSO surcharge mitigation. Task order request issued last period. Proposals received in early March. Design team selection and fee negotiation in March April. Design kickoff anticipated in late spring/early summer





## Flood Action Progress Report: Hooffs Run Culvert Bypass Project

• City staff continues evaluation of potential alternatives



### **Bellefonte Ave Storm Drain Improvements**

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/bellefonteavenue-storm-drain-improvements

### **Project Information**

**Current Phase:** Design Total Planned Budget: \$1.564.869.29

Funding Sources: SWU

### **Project Description**

The Bellefonte Avenue Storm Drain improvement project aims to improve the local storm drainage system, specifically targeting areas prone to flooding during the City's standard 10-year, 24-hour storm event along East Bellefonte Avenue and East Howell Avenue. The project seeks to mitigate the impact of larger storm events while ensuring that improvements do not worsen flooding in other parts of the drainage system. A federal grant application for a FY 2025 Community Directed Funding/Earmark grant administered through Housing the Urban Development (HUD) in the amount of \$1.565,000 was submitted to fully fund this project. Awards are typically announced in the Spring of the fiscal year. However, if this grant is not awarded, approved FY 2025 funding and planned FY 2026 funding will be used to fund the project.

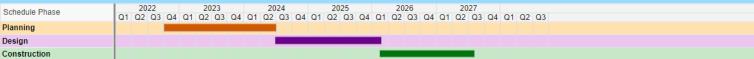
## ON-GOING

- Reviewed fee proposal
- **Continued** negotiations

## **FORECASTED**

Advancing to design kickoff

## Schedule - Calendar Year (CY)



### Clifford Ave, Fulton St. & Manning St. (CFM) Storm Sewer Improvements

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/cliffordavenue-fulton-street-and-manning-street-storm-sewerimprovements

#### Project Information

**Current Phase:** Design Total Planned Budget: \$831.630.00 Funding Sources: SWU, HUD (Bever)

#### **Project Description**

The Clifford Avenue, Fulton Street and Manning Street (CFM) Storm Sewer Improvements Project will provide flooding mitigation to townhouses along the 3000 block of Fulton Street and Manning Street. The alley bound between the two streets will be re-built to channelize surface flow and improve drainage. Inlets and underground storage will be installed to capture and attenuate stormwater runoff. Utility impacts will be identified and resolved during the design phase.

## **ON-GOING**

- Completed 30% design & review
- Hosted neighborhood kickoff meeting

## **FORECASTED**

- Begin 90% Design
- **Begin utility** relocation coordination

### Schedule - Calendar Year (CY)

Schedule Phase Q1 Q2 Q3 Q4 Q1 Q2 Q3 Planning Design Construction



## **Edison St. Storm Sewer Upgrades**

### **Project Webpage**

https://www.alexandriava.gov/stormwater-management/edisonstreet-and-dale-street-early-phase

#### **Project Information**

Current Phase: Design

Total Planned Budget: \$979,000.00

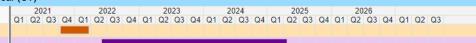
Funding Sources: SWU, CFPF

### **Project Description**

The Edison St. Storm Sewer Upgrades Project proposes to upgrade the storm sewer system capacity along the 3800 block of Edison Street to the outfall in Four Mile Run Park. Additional inlets are proposed along Edison Street to increase storm water capture. These storm sewer improvements are a portion of the future Large Capacity Project – Edison and Dale that have been accelerated upon receiving funding from Virginia Community Flood Preparedness Fund (CFPF) prior to the funding becoming available in FY 2026.

### Schedule - Calendar Year (CY)

Schedule Phase
Planning
Design
Construction



### Four Mile Run and Hoofs Run Inlet Installation and Enhancement

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/four-mile-runand-hooffs-run-inlet-installation-and-enhancement

#### Project Information

Current Phase: Design

Total Planned Budget: \$1,584,100.00

**Funding Sources:** 

#### Project Description

This project will focus on comprehensive analysis of the existing stormwater inlet capacity across Four Mile Run and Hoofs Run watersheds. By evaluating the capacity of existing stormwater inlets within these two watersheds, this project will provide recommendations on installing new inlets and upsizing existing ones to mitigate local flash floods and to enhance the overall conveyance efficiency of the storm sewer system. The project receives funding from the City's Stormwater Utility and the Virginia Community Flood Preparedness Fund (CFPF) grant.

## **ON-GOING**

- Continuing
  Utility
  coordination
- Received final comments

## **FORECASTED**

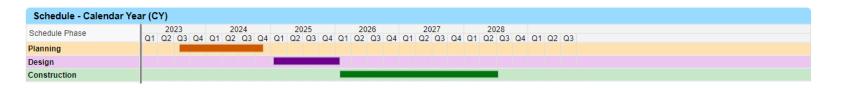
- Planning Preconstruction community meeting
- Advancing to Construction
   Procurement

## **ON-GOING**

 Preparing Task
 Order (TO) for design works

## **FORECASTED**

Advancing to design kick off





### **Hume Ave Stormdrain Bypass**

### **Project Webpage**

https://www.alexandriava.gov/tes/hume-avenue-bypass-project

#### **Project Information**

Current Phase: Design
Total Planned Budget: \$5,090,289.00
Funding Sources: SWU. ARPA

### **Project Description**

The Hume Avenue Storm Sewer Bypass Project will install storm sewer and inlets along the 100 block of Hume Avenue and E. Raymond Avenue. The addition of a new utility within each right-of-way requires the relocation of gas, electric, water and sanitary systems. On E. Raymond Avenue the sanitary sewer will be upgraded to a larger pipe in tandem with its re-location. Hume Avenue will be re-built to restore conveyance along the curb and gutter.

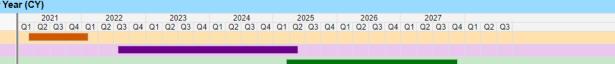
### Schedule - Calendar Year (CY)

Schedule Phase

Planning

Design

Construction



### Mt Vernon and Edison Dual Culvert Replacement Project

### **Project Webpage**

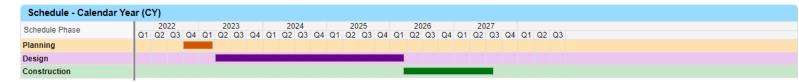
https://www.alexandriava.gov/stormwater-management/mount-vernon-dual-corrugated-metal-pipe-cmp-culvert-replacement-project

#### **Project Information**

Current Phase: Design
Total Planned Budget: \$2,500,000.00
Funding Sources: SWU, CFPF

### Project Description

The project upgrades an existing Dual Corrugated Metal Pipe (CMP) culvert system to convey larger storm events, reducing the chance of surcharging in Mount Vernon Avenue. The project receives funding from the City's Stormwater Utility and a grant from the Virginia Community Flood Preparedness Fund (CFPF).



## **ON-GOING**

- Resolved utility conflicts
- Advancing to final design
- Dominion relocation underway

## **FORECASTED**

- Receive final design
- Receive rightof-entry permissions
- Dominion work completes

## **ON-GOING**

 Continued investigation of strategies to reduce flooding and stabilize the existing

culverts

## **FORECASTED**

Receive
engineering
assessment &
proceed with
design
development



## Mt. Vernon Cul-de-sac Inlets and Alley Storm Sewer Improvements

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/mt-vernoncul-de-sac-inlets-and-alley-storm-sewer-improvements

#### **Project Information**

**Current Phase:** Construction \$2,055,841.00 Total Planned Budget: **Funding Sources:** SWU, ARPA

#### **Project Description**

The Mt. Vernon Cul-de-sac Inlets and Alley Improvements Project will provide flood mitigation for townhomes on the 100 block of Mt. Vernon Avenue. Inlets and runoff storage vaults will be installed on Mt. Vernon Avenue and its adjacent alleyway to capture and attenuate storm water runoff. The alleyway will be re-graded to improve surface drainage into the downstream swale. The existing drinking water line owned by Virginia American Water Company (VAWC) will be relocated.

### Schedule - Calendar Year (CY)

Schedule Phase Planning Design Construction



## N Overlook Drainage Improvements

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/n-overlookdrainage-improvements-project

#### Project Information

**Current Phase:** Construction Total Planned Budget: \$387,979.35 Funding Sources:

#### Project Description

Runoff from N Overlook Dr flows to a driveway access between 701 N Overlook Dr and 615 N Overlook Dr. Runoff overtops the north curb of the driveway access and flows towards Pullman PI. This project will increase inlet capture and storm sewer capacity to mitigate flooding for the 10-year storm. In addition, project will ensure no increases in downstream storm sewer for the 10-year storm.

## **ON-GOING**

- Water main upgrades and relocation
- Investigating resolutions to community concerns

## **FORECASTED**

- Additional community outreach
- Water main re-location by private utility

## **ON-GOING**

**Project** Complete

## **FORECASTED**

None

Schedule - Calendar Year	(C,	<b>r</b> )																						
Schedule Phase	01	2020		4 01		21	04	01	202		14 6		2023		M 0	1 0	2024	0	01	2025 Q2 Q3	04	01	02	02
Planning	QT	uz u	3 Q4	4 QI	Q2	Q3	Q4	QΤ	Q2 C	23 C	24 C	21 0	22 U	3 6	24 U	21 0	22 Q3	Q	ı Qı	Q2 Q3	Q4	QI	Q2	Q3
Design																								
Construction														r					7					



### Oakland Terrace Timber Branch Channel Wall Replacement

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/oaklandterrace-timber-branch-channel-wall-reconstruction

### **Project Information**

Current Phase: Construction
Total Planned Budget: \$307,854.00
Funding Sources: SWU

#### **Project Description**

This project replaces approximately 205 linear feet of an existing concrete retaining wall with a vegetative reinforced revetment and bioengineered soil.

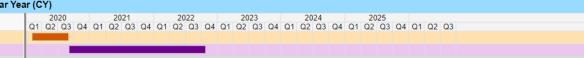
## Schedule - Calendar Year (CY)

Schedule Phase

Planning

Design

Construction



### S Jordan St. Stormwater Improvement Phase II

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/s-jordon-st-stormwater-improvement-project-phase-ii

#### **Project Information**

Construction

Current Phase:PlanningTotal Planned Budget:\$1,360,000.00

Funding Sources: SWU

### **Project Description**

This project will design a solution to reduce backyard flooding risk to the maximum extent practicable on the north side of the block of 95 to 127 South Jordan Street. After the field investigation, reviewing CCTV recordings and reading the consultant's recommendations, one small scale project was identified. SWM team to work with private property owners along S Jordan St and 4600 Duke to improve the existing swale and conveyance on private property. The City will plan to obtain a 15-ft. wide permanent easement for the storm drain system in this neighborhood as part of this project. Obtaining an easement will allow the City to maintain the storm drain system without having to request permission for entry.

### 

## **ON-GOING**

- Wall replacement complete
- Grow-in of live stakes & vegetation

## **FORECASTED**

- Continued grow-in of live stakes & vegetation
- Maintenance& Monitoring

## **ON-GOING**

Held kickoff meeting for planning and design

## **FORECASTED**

- collection and survey to complete
- Conceptual model prepared



### **Valley Drive Storm Drain Improvements**

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/valley-drivestorm-drain-improvements

### **Project Information**

Current Phase: Design

Total Planned Budget: \$3,879,999.29

Funding Sources: SWU

### **Project Description**

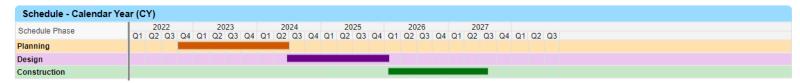
The Valley Drive Storm Drain improvement project aims to improve the local storm drainage system, specifically targeting areas prone to flooding during the City's standard 10-year, 24-hour storm event along Valley Drive, Crestwood Drive, Summit Avenue, and Dogwood Drive. The project seeks to mitigate the impact of larger storm events while ensuring that improvements do not worsen flooding in other parts of the drainage system. Following City Council approval, staff is working on an application for a state Community Flood Preparedness Fund (CFPF) grant for a 60/40 match in the amount of \$2.160.000 with local Stormwater Utility funding of \$1.440.000 identified for the match.

## **ON-GOING**

- Design orientati
   on is complete
- Continuing alternative assessment

## **FORECASTED**

Receive 30%ConceptDesign



### W. Reed Ave & Dale St Storm Sewer Improvements

### Project Webpage

https://www.alexandriava.gov/stormwater-management/edisonstreet-and-dale-street-early-phase

#### Project Information

Current Phase: Design

Total Planned Budget: \$2,230,000.00

Funding Sources: SWU

#### Project Description

W. Reed Ave & Dale St. Storm Sewer Improvements Project proposes new inlets and storm sewer along the 100 block of W. Reed Ave and capacity improvements along the downstream system to the outfall in Four Mile Run Park. These storm sewer improvements are a portion of the future Large Capacity Project – Edison and Dale that have been accelerated with Virginia Community Flood Preparedness Fund (CFPF) prior to the funding becoming available in FY 2028

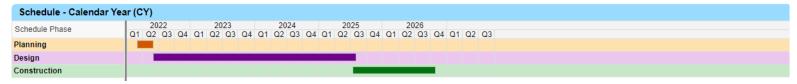
## **ON-GOING**

- Proceived 90%

  Design & 
  began design 
  review
- Submitted JPA application

## **FORECASTED**

- Complete
  90% Design
- Complete additional test pits
- Continue
   utility
   coordination

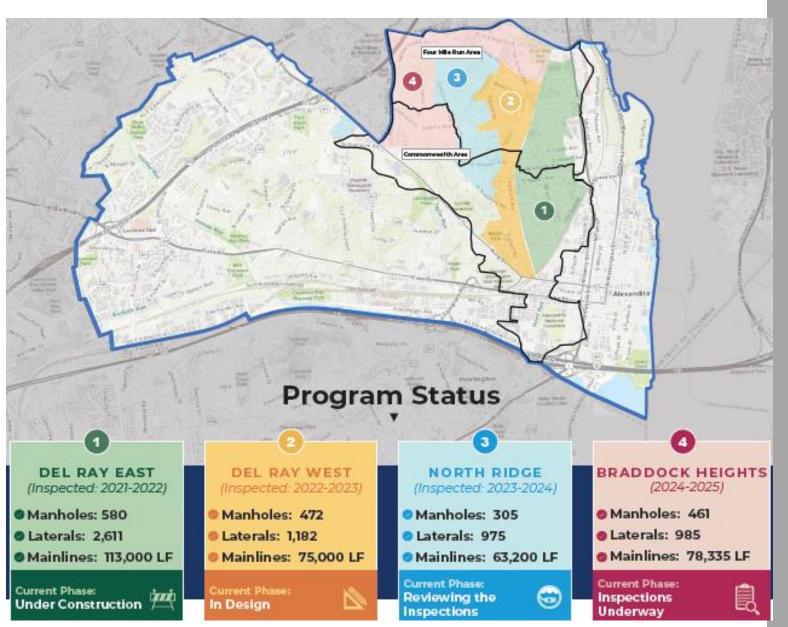






# Del Ray East Manhole & Mainline Rehabilitation:

- Construction wrapping up
- Remaining line segments require Noise Variance Permits
- Del Ray East
   Lateral Rehabilitation:
  - City owns lateral sewers from mainline connection to curb
  - ITB Spring 2025





## Sanitary Sewer Backup Mitigation Projects

## **Sanitary Sewer Capacity Upsizing Project No. 1**

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/sanitarysewer-capacity-upsizing-project-no-1

### **Project Information**

Current Phase: Construction

Total Planned Budget: \$2,725,346.24

Funding Sources: Sanitary Sewer

### **Project Description**

This project provides for upsizing of existing sanitary sewer pipes located at five (5) project sites. The project sites include the following: East Alexandria Avenue, Ashby Street, East Oak Street, East Walnut Street, and East Maple Street. This work is being undertaken to help mitigate sanitary sewer backups that occur as a result of significant wet weather.

## Schedule - Calendar Year (CY)

Schedule Phase
Planning
Design
Construction

2021 2022 2023 2024 2025 2026 Q1 Q2 Q3 Q4 Q1 Q2 Q3

Combined Sewer Upsizing - 300/400 N Alfred St

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/300-400-block-north-alfred-street-combined-sewer-upsizing-project

#### **Project Information**

Current Phase: Construction

Total Planned Budget: \$781,600.00

Funding Sources: Sanitary Sewer

### **Project Description**

This project includes upsizing 758 feet of existing sanitary and combined sewers along the 300/400 blocks of N Alfred Street. This project was undertaken to address sewer backups from significant wet weather events.

## **ON-GOING**

- Construction underway
- Workwrappingup on E OakStreet

## **FORECASTED**

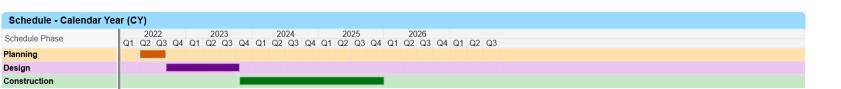
- Mobilize to next area
- Construction through July 2025

## **ON-GOING**

Construction
began March
10th

## **FORECASTED**

Construction through July 2025





## Sanitary Sewer Backup Mitigation Projects

### Madison St and N St Asaph St Sewer Replacement

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/madisonstreet-and-north-saint-asaph-street-sewer-replacement

### **Project Information**

Current Phase: Construction

Total Planned Budget: \$500,000.00

Funding Sources: Sanitary Sewer

### **Project Description**

This project includes upsizing of the existing combined sewer and stormwater conveyance improvements at the intersection of Madison and N Saint Asaph Streets. This project is being done to help mitigate flooding in the intersection and flooding onto neighboring properties.

## **ON-GOING**

Contract award March 5th

## **FORECASTED**

- Notice to Proceed to be issued Spring 2025
- Construction for 120 days

## Schedule - Calendar Year (CY) Schedule Phase

Planning
Design
Construction

## 2021 2022 2023 2024 2025 2026 Q1 Q2 Q3 Q4 Q1 Q2 Q3

### **600 Block of N Columbus Street Sewer Separation Project**

### **Project Webpage**

https://www.alexandriava.gov/capital-projects/project/600-block-ofnorth-columbus-street-sewer-separation-project

#### **Project Information**

Current Phase: Design

Total Planned Budget: \$1,001,913.28

Funding Sources: Sanitary Sewer

#### Project Description

This project is a sewer separation project at 600 Block of N Columbus Street where the sanitary sewer is being disconnected from the combined sewer system and reconnected to a fully separated sanitary sewer. This project is being undertaken to mitigate the potential for sewer basement backups from the combined sewer being over capacity during periods of significant wet weather.

## **ON-GOING**

Design completed December 2025

ITB being prepared

## **FORECASTED**

- ITB to be issued Spring 2025
- Construction
  Award
  late Summer
  2025

### Schedule - Calendar Year (CY)

Schedule Phase Q1 Q2 Q3 Q4 Q1

17



## Sanitary Sewer Backup Mitigation Projects

### 400 Block Wolfe St Sanitary Sewer Upsizing

### Project Webpage

https://www.alexandriava.gov/sewers/400-block-of-wolfe-streetsanitary-sewer-upsizing-project

### **Project Information**

Current Phase: Design

**Total Planned Budget:** \$1,667,900.00

Funding Sources:

Sanitary Sewer

Sanitary Sewer

### **Project Description**

This project calls for the planning, design and construction of an upsized sewer network along the 400 block of Wolfe Street in the Old Town combined sewershed. This project was initiated in response to multiple sewer backups that have occurred during periods of wet weather.

### Schedule - Calendar Year (CY)

Schedule Phase Q1 Q2 Q3 Q4 Q1 Q2 Q3 **Planning** Design Construction

### **Colonial Avenue Sewer Separation Project**

### **Project Webpage**

https://www.alexandriava.gov/sewers/colonial-avenue-sewer-

#### **Project Information**

**Funding Sources:** 

Current Phase: Design Total Planned Budget: \$1,678,104.00

#### **Project Description**

The Colonial Ave Sewer Separation project consists of separating the existing sanitary sewer from the combined sewer system and connecting it to a fully separate sanitary sewer. This project is being undertaken to mitigate the potential for sewer backups during significant wet weather.

## **ON-GOING**

- Design completed January 2025
- ITB being prepared

## **FORECASTED**

- ITB to be issued Spring 2025
- Construction Award late Summer 2025

## **ON-GOING**

Purchase Order for design issued January 2025

Field survey underway

## **FORECASTED**

60% design submittal late Spring

### Schedule - Calendar Year (CY)

2025 2026 Schedule Phase Q1 Q2 Q3 Q4 Q1 Q2 Q3 **Planning** Design Construction



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## January - February

- 14 Total Flood Action/ Stormwater social media posts
  - SWU Fee Credit Program, Commonwealth, Ashby, Glebe
- Impressions: 125,768 increased by 100%
- Engagements: 6,265 increased by 69%
- Post link clicks: 895 increased by 217%

- 5,695 Stormwater Management webpage views
  - \*86 total pages under Stormwater Management web group
- Average engagement rate: 64%, Average events per session: 4
- Most popular stormwater webpages: Additional Top Ten Pages:
  - Stormwater Utility Fee: 681 views
  - Flood Map = 629 views
  - Flood Action = 525 views

Types of Sewer Systems: 474 views

Stormwater Utility Fee, Residential Properties: 370

<sup>\*</sup>Compared to previous 2 months (November - December)

<sup>\*</sup>Increase engagements following snow events



## Communications

**Upcoming Communications Priorities** 

- Flood Mitigation Grant Program
- Commonwealth, Ashby, Glebe

Earth Month 2025



## **Maintenance Activities**

- Hooffs Run Culvert Maintenance and Cleaning from Linden Street to Duke Street
  - Maintenance work is underway and expected to continue through April 2025.
  - The sediment removal is complete.
    - 2700 CF of sediment was removed.
  - Concrete repairs are ongoing.
  - Staging areas are located in Linden Street Alley, Mount Vernon Avenue cul-de-sac and Hooffs Run Park.











## Flood Mitigation Grant Program

- We have reimbursed a total of \$1,113,021.41 since the start of the program in July 2021.
- So far in FY2025, we have 76 applications in various stages with a total of \$122,174.18 reimbursed.
- In FY2024, we had 101 approved applications for a total of \$235,145.16 reimbursed.
- In FY2023, we had 73 approved applications for a total of \$167,538.49 reimbursed.
- In FY2022, we had 148 approved applications for a total of \$588,163.58 reimbursed.



## **Annual Stormwater Utility Credit Program Results**

	23/24 Credit Applicants	24/25 Credit Applicants	<u>Total*</u>
Applications	106	334	440
\$ Approved	~\$35,000	~\$179,000	~\$214,000
Most Common Practices		Preservation, No Fertil ration Landscaping, Rain	• •
Average credit percentage	~33%	~38%	

<sup>\*</sup>The Total column presents the total amount of SWU Credits for the calendar year given that the SWU credit cycle is a two-year cycle.









# Discussion of Proposal for Targeted Incentives for Chronic Flood Zones



# Discussion of Committee testimony for FY2026 budget hearings



## **Outline of Committee's Annual Report**



## **Public Comment**



## Adjourn