



Ad Hoc Stormwater Utility & Flood Mitigation Advisory Group

August 12, 2021 | 7:00 p.m.

Electronic Meeting Notice

AGENDA ITEM #1

Electronic Meeting Notice

Due to the COVID-19 Pandemic emergency, this meeting is being held electronically pursuant to Virginia Code Section 2.2- 3708.2(A)(3), the Continuity of Government ordinance adopted by the City Council on June 20, 2020 or Section 4-0.01 (g) in HB29 and HB30, enacted by the 2020 Virginia General Assembly (Virginia Acts of Assembly Ch. 1283 and 1289), to undertake essential business. All of the members of the Advisory Group and staff are participating from remote locations through Zoom. This meeting is being held electronically, unless a determination is made that it is safe enough to be held in person. Electronic access will be provided in either event.

Note: this meeting is being recorded.

Minutes of the June 10, 2021 Meeting

AGENDA ITEM #2

Election of Advisory Group Chair

AGENDA ITEM #3

Chair Position

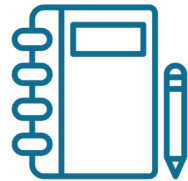
Key Responsibilities:



Facilitate all
Advisory
Group
meetings



Facilitate
public
comment
period



Work with
Staff Liaison
to set meeting
agendas



Ensure
Advisory
Group
conforms to
By-Laws



Lead development
of Annual Work
Plan in
collaboration with
members and
Staff Liaison



Prepare draft
recommendations
and develops
annual report for
submission to City
Council

City Budget Process

AGENDA ITEM #4

FY 2023 Budget Process*

Fall 2021

- ★ Oct: Board & Commission budget priorities due to Office of Management & Budget
- Oct: CIP Work Sessions begin
- Nov: City Council Budget Retreat
- Nov: City Council Budget Guidance



Winter 2021-22

- Feb: City Manager presents proposed budget
- CIP Work Sessions continue



Spring 2022

- CIP Work Sessions continue
- ★ Mar: Spring Memo to Council on Budget Recommendations
- Apr: City Council Add/Delete Proposals
- May: Budget Adoption

Stormwater Primer

AGENDA ITEM #5

Stormwater Primer

- ✓ Introduction to stormwater management in the City
- ✓ Intended to ensure baseline of information for future Advisory Group meetings and discussion

Primer Outline:

- Introduction to Stormwater Management
- Stormwater Management in Alexandria
 - History
 - Stormwater & Sanitary Sewer Systems
 - Watersheds
 - Stormwater Infrastructure
 - Funding
 - Programs
 - Organizational Structure
 - Development Standards
 - Operations & Maintenance
 - Procurement Process & Project Timelines
- City of Alexandria Storm Sewer Capacity Analysis (CASSCA) study

What is Stormwater Management?

The effort to manage the flow of rainwater or snowmelt to minimize adverse effects such as flooding and preserve water quality.

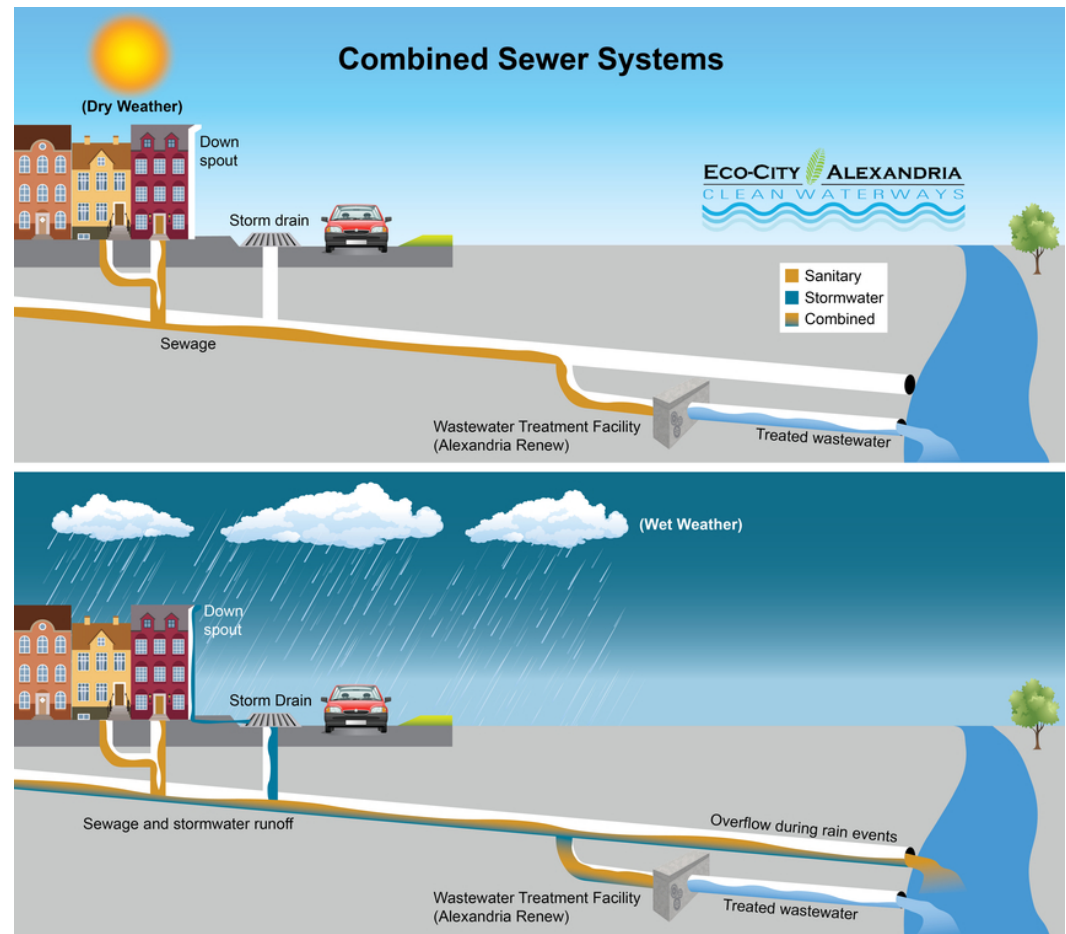
Stormwater management includes the maintenance and enhancement of streams, channels, a community flood management program and flooding mitigation projects. In the City it also means complying with state and federal water quality cleanup mandates for the Chesapeake Bay.



Stormwater & Sanitary Sewer Systems



Serves ~95% of the City



Serves ~5% of the City in Old Town

Stormwater Funding

Stormwater Utility Fee

- Adopted 2018
- Dedicated stormwater management program funding for:
 - Capital projects
 - Storm sewer maintenance
 - Water quality initiatives
 - MS4 permit compliance
 - Flood management
 - Stream and Channel Maintenance
 - Leaf pickup
 - Plan review
 - Street sweeping
 - Staff support

Additional Funding Sources

- American Rescue Plan Act – Coronavirus State and Local Recovery Fund
- FEMA Building Resiliency Infrastructure and Communities (BRIC) Program
- Virginia Community Preparedness Fund (CFPF)
- U.S. Economic Development Initiative Community Project Funding
- Stormwater Local Assistance Fund (SLAF)

Stormwater Programs

Floodplain Management

- Community Rating System (CRS) & National Flood Ins Program (NFIP)
- Development comply with ordinance

Municipal Separate Storm Sewer System (MS4) Permit

- Clean Water Act through VDEQ
- 6 minimum control measures, Bay mandates, annual reporting

Virginia Stormwater Management Program (VSMP)

- Water quality and water quantity and development
- Complementary to Chesapeake Bay Act requirements

Spot Improvement Program

- 8-11 projects per year

Flood Mitigation Pilot Grant

- 50% reimbursement for floodproofing measures on private property (up to \$5,000)

Backflow Preventer Assistance*

- Sanitary sewer back ups, 50% reimbursement on private property (up to \$2,000)

**Funded from Sanitary Sewer budget*

Development Standards

Development land disturbance $\geq 2,500$ square feet requirements

- *Erosion and Sediment Control* plan during construction (VSMP permit ≥ 1 ac disturbance)
- *Stormwater Quality* requirements: post-construction best management practices (BMPs)
 - State phosphorus reductions
 - More stringent local requirement: treat “first flush” (first $\frac{1}{2}$ ” runoff from all impervious) with BMPs
- *Water Quantity*: Must control the rate of stormwater runoff
 - Pre \leq post and prove the impact will not cause harm downstream
 - More stringent design storm than state standard

Operations & Maintenance

Activities include:

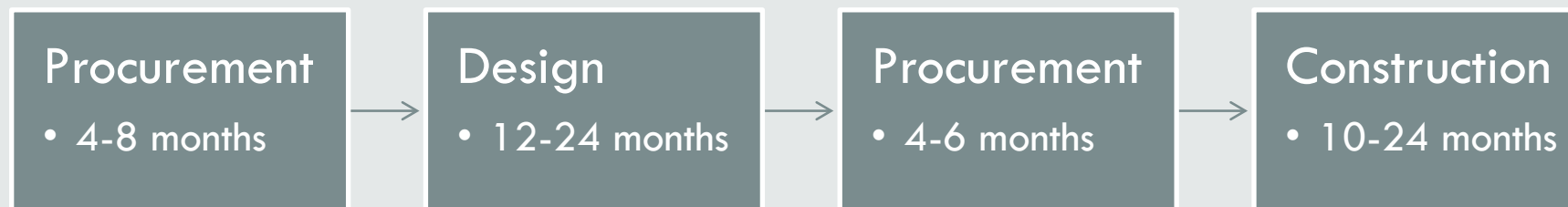
- ✓ Inspecting and cleaning storm lines every 3-5 years
- ✓ Inspecting and clearing storm inlets and outlets in anticipation of upcoming storm events
- ✓ Maintenance of stormwater Best Management Practices (BMPs)
- ✓ Repairing stormwater infrastructure, including storm inlets, manholes, and pipes as needed
- ✓ Stream and channel maintenance
- ✓ Maintaining large infrastructure components, such as cleaning Hooffs Run Culvert
- ✓ Inspecting internal sewers via CCTV
- ✓ Street sweeping & leaf removal
- ✓ Additional maintenance in response to service requests received via Alex311



Anticipated Project Timelines*



Large Capacity Project: 3-5 years



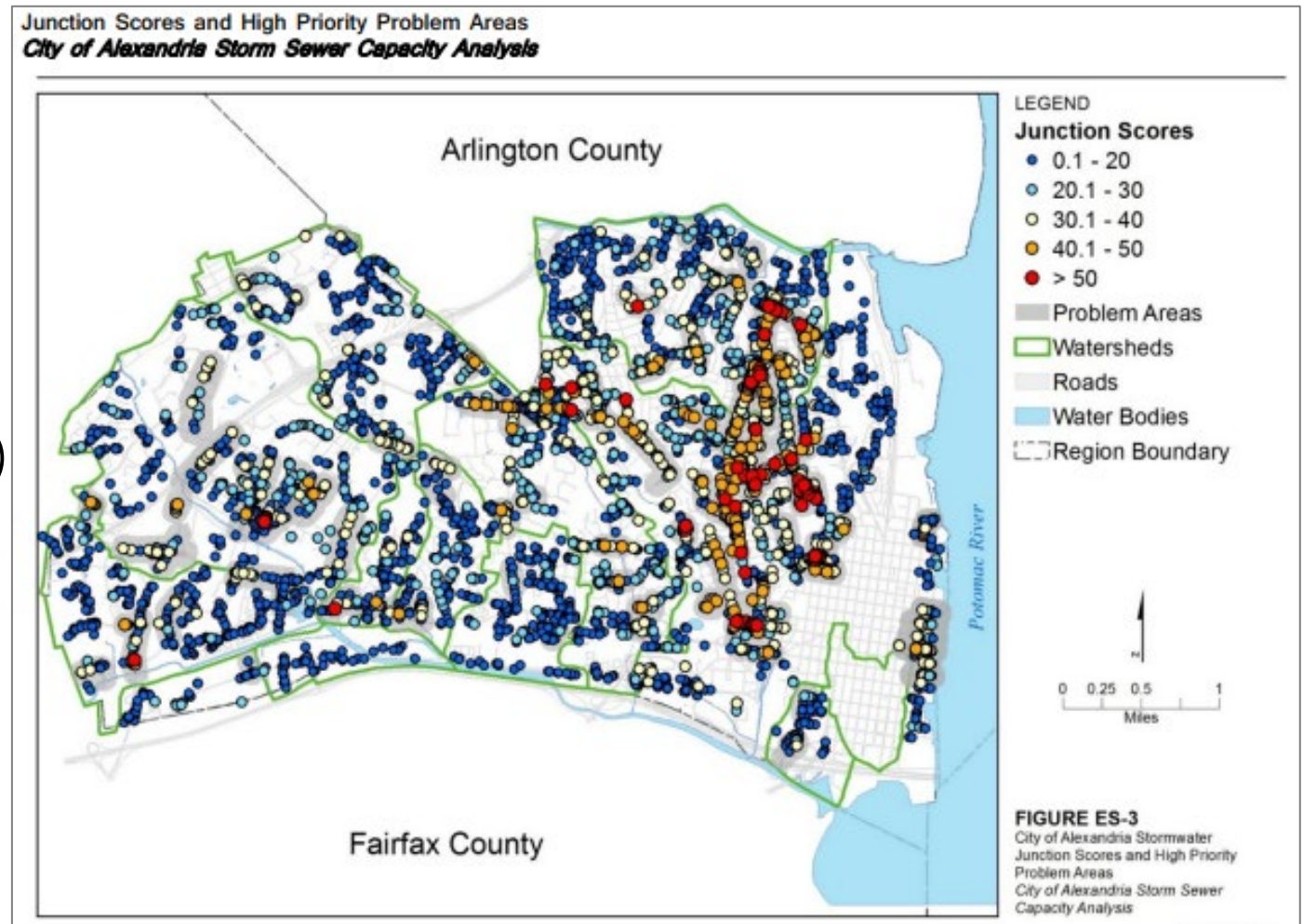
Spot Improvement Project: 8-20 months



*Based on typical CIP project; once funding is available

City of Alexandria Storm Sewer Capacity Analysis (CASSCA)

- Completed 2016 in response to increasingly frequent flood events
- Analyzed storm sewer capacity, identified problem areas, and recommended solutions
- 90 modeled problem areas identified as potential capacity issues*
 - *Planning-level estimates total \$60 million (in 2016 dollars for construction costs only)
- Design of top 3 priority projects funded in FY 2022: \$19.9M
 - Implementation FY23, FY24, FY25 respectively
- Top 11 projects in 10-Year CIP: \$169.4M
 - Includes full project delivery (design and construction)



Staff Updates

AGENDA ITEM #6

Large Capacity Projects

- Design est. top 3 projects funded in FY 2022: \$19.9M
 - Estimated construction funded FY23, FY24, FY25 respectively: \$87.6M
- 10-Year est. design and construction for Top 11 projects: \$169.4M

Design #1: E. Glebe & Commonwealth & #2: Ashby & E. Glebe

- Combined into design project/procurement: Request for Qualifications (RFQU) anticipated to Purchasing in ~2 weeks
- Anticipated contract award: April 2022
- Anticipated completion of design: September 2023

Design #3: Hooffs Run Culvert Bypass

- Design procurement: Request for Qualifications (RFQU) anticipated to Purchasing in ~4 weeks
- Anticipated contract award: April 2022
- Anticipated completion of design: October 2023

Neighborhood Spot Improvements

- Support the increased functionality of the storm sewer system
- Additional projects being identified
- Project delivery acceleration from 3-5 annually to 8-11 annually
- Learn more about these projects at www.alexandriava.gov/122680

Flash Flooding Spot Improvement

– 1st tranche ARPA projects

- Mt. Vernon Cul-de-sac and Inlets
- Hume Storm Sewer Bypass
- Hume and Commonwealth Inlets and Check Valves

Federal Ear Mark Pending

- Clifford, Fulton, and Manning drainage and flooding improvement

Communications



- ✓ 200 Flood Action Alexandria eNews subscribers as of 7/28
- ✓ eNewsletter Issue 2 released
- ✓ Social media (Facebook, Instagram, Twitter) engagement ongoing
- ✓ Continuously creating new content and materials to help improve transparency and communications across the Flood Action Alexandria initiative

Flood Mitigation Pilot Grant Program

Updates:

- Link to dedicated sub-page posted on Flood Action homepage
- Eligible flood mitigation practices posted online July 15
- Flood Mitigation Pilot Grant Program Info Session webinar August 10
- Applications accepted starting August 15th; submitted on a rolling basis

Program Details:

- Eligibility criteria: demonstrated flooding on residential properties, measure(s) installed after July 2019
- Reimbursement based on receipts
- City provides up to 50% of costs, up to \$5,000
- Pilot will be assessed, and eligibility adjusted
- More information:
www.alexandriava.gov/121974

Data Collection & Early Warning

6 new rain gauges installed

2 new stream gauges installed

8 signs deployed warning that a “Road May Flood”

An updated, interactive public-facing portal is under construction

- Consultant has started commissioning of the new website interfaces for the major watersheds, currently under review
- <https://alxfloodwatch.onerain.com>
- Feedback welcome
- Grand Opening in September

Welcome to the City of Alexandria Rain Gauge and Stream Flow tool. If you know your watershed of interest, please click the associated button to go to that page.

To find what watershed you are in, click on the "WHICH WATERSHED AM I IN?" button and a new pop-up window will take you to a tool where you can identify the watershed you are located in by typing in your address.

What is a "watershed"?

The map to the right is our citywide view. All the city's rain gauges and stream flow gauges are shown. Data is available for all the city's gauges. A quick tutorial for accessing the gauge data can be found here: (TBD)

WHICH WATERSHED AM I IN?

2021-08-09 16:11:37

Weather for Alexandria, VA More at [Dark Sky](#)

Today: 90° and falling
Humid and Partly Cloudy
Wind: 7 mph (S)

Today	Tue	Wed	Thu	Fri	Sat	Sun	Mon
91° 72°	94° 76°	95° 77°	98° 77°	98° 78°	91° 76°	84° 69°	84° 71°

Maintenance

Work completed from April 30-July 1:

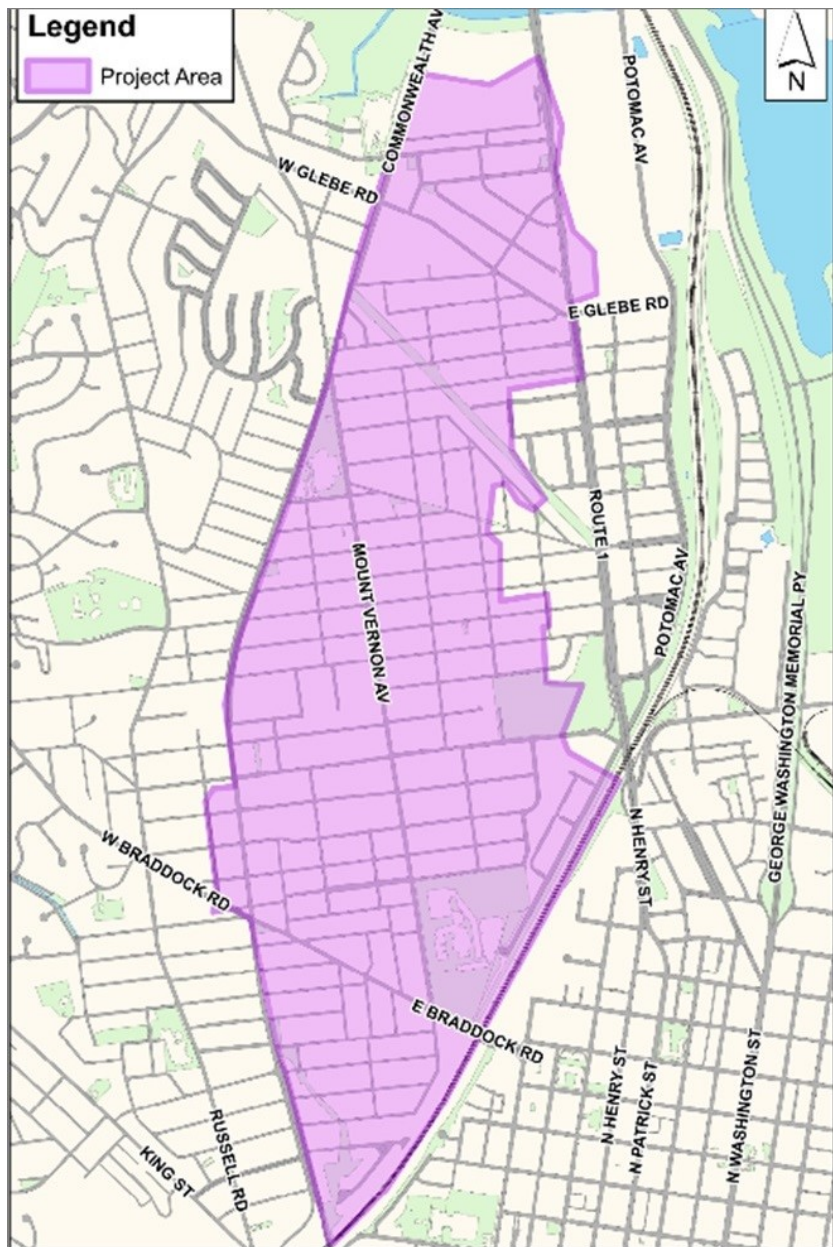
- Inspected 1,045 inlets
- Cleaned 314 inlets
- Inspected and cleaned 3,960' of storm pipe
- Removed 786 tons of material from Hooff's Run Culvert
- Repaired 16 storm structures
- Research and outreach on various easements



Rebuilt Public Storm Pipe on Janneys Lane



Rebuilt Structure on Ruffner Road



Sanitary Sewer

Asset Renewal Program

- Inspections east of Commonwealth Ave started in March
- July 30: Approximately 60% of sewers inspected; 40% of manholes inspected
- Inspections to be completed late 2021; rehabilitation to follow in 2022

Sanitary Sewer Master Plan Update

- Draft plan released at alexandriava.gov/sewers
- Roadmap of infrastructure needs, overview of strategies to address wet weather-related sanitary sewer backups, and review of sanitary sewer fees
- Public meeting to be scheduled in late Sept/early Oct
- Planning Commission & City Council hearing and consideration for adoption in November 2021

Member Updates and Q&A

AGENDA ITEM #7

Public Comment Period

AGENDA ITEM #8