



# Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group

December 8, 2021 | 7:00 p.m. | Virtual Meeting

## DRAFT Minutes

### Advisory Group Members Present:

P	John Chapman	P	Howard “Skip” Maginniss
P	Dino Drudi	P	Brian Sands
A	Charlotte Hall	P	Christine Thuot
P	John Hill	P	Katherine Waynick
A	Cheryl Leonard		

P = Present    A = Absent

**Staff Present:** Dan Medina, Stormwater Program Manager, Jesse Maines, T&ES Division Chief, Stormwater Management; Erin Bevis-Carver, T&ES Division Chief, Sanitary Sewer Infrastructure; Brian Rahal, T&ES; Jessica Lassetter, T&ES; Mitch Dillon, DPI; Alex Carroll, T&ES; Amanda Dolasinski, T&ES, Sabu Paul, DPI, Jonathan Whiteleather, DPI

### Action Items are in bold

The meeting began at 7:05 p.m.

Dr. Medina introduced RK&K, who will be helping take minutes for the meeting.

#### 1. Electronic Meeting Notice

Mr. Maginniss began the meeting by reading the electronic meeting notice and went over general housekeeping items.

#### 2. Approval of Meeting Minutes

Motion to approve meeting minutes from 10/7/21

Mr. Drudi asked if his comments on the first revision of the minutes have been incorporated. Mr. Maginniss confirmed they have.

Motion: Brian Sands

Second: John Hill

Vote: Unanimous

#### 3. Chair’s Comments - Howard Maginniss

- a. Mr. Maginniss appreciated everyone’s patience on figuring out this meeting date.
- b. Mr. Maginniss would like the Advisory Group to start thinking about work products (opinions, white papers, research, plans, etc.) that can be sent to the City Manager and City Council. **Advisory Group to email Mr. Maginniss with ideas prior to the next meeting. The Advisory Group will develop a plan to execute these ideas at future meetings.**
- c. Dr. Medina is offering one-on-one conversations for individual members to gather feedback and answer questions. **If anyone from the Advisory Group is interested, please reach out to Dr. Medina.**



- d. Mr. Maginniss requested attendees use the “raise hand function” to comment or offer questions during the meeting.

#### **4. Staff Update: General**

- a. Dr. Medina introduced himself and explained that he joined the Flood Action program in October 2021.
- b. Dr. Medina presented the funding timeline for the City’s 11 highest priority storm sewer capacity projects from 2022-2031. This does not represent an implementation timeline.

#### **5. Staff Update: Large capacity projects**

- a. Dr. Paul presented the anticipated project implementation timeline for the City’s first three [storm sewer capacity projects](#): Commonwealth Avenue & E. Glebe Road and E. Glebe Road and Ashby, and Hooff’s Run Culvert/Timber Branch Bypass.
- b. The first two projects are being packaged into one larger project to streamline design. The RFQU (request for qualifications) will be released in early February 2022. Design is anticipated to take 24-36 months.
- c. The Hooff’s Run Bypass RFQU will be released in April 2022. Design is anticipated to take approximately three years.
- d. The three projects have an anticipated design cost of \$19.9M and a construction cost of \$87.6M.

#### **6. Staff Update: Neighborhood spot improvement projects**

- a. Mr. Dillon introduced smaller neighborhood projects which address localized flooding through increased pipe sizes, check valves, and additional inlets.
- b. Mr. Dillon presented the project workflow, starting from project identification using Alex311 through site visits, planning, funding, design, and construction. A major component of this process is City staff meeting with property owners to help further understand issues and identify suitable solutions.
- c. City staff and their consultants met with over 20 neighborhoods across the City impacted by recent severe storm events. These meetings lead to more detailed site investigations which helped to identify specific projects to help address localized flooding. These detailed investigations of the neighborhoods will conclude in early 2022 and the City will continue the process of identifying and implementing neighborhood spot improvement projects.
- d. Seven spot improvement projects were described in more detail to offer examples of what the City and its consultants have been working on. The projects are in different phases, ranging from design through construction. Some projects have been constructed already, including a series of check valves.
  - a. Mr. Dillon and Mr. Rahal provided additional details on three projects specific to Hume Ave. Neighborhood – inlet reconstruction, check valve, and storm drain bypass.



## 7. Staff Update: Sanitary sewer asset renewal

- a. Dr. Medina explained that sanitary sewers backups are exacerbated by severe storm events and flash flooding due to infiltration and inflow (I&I).
- b. Ms. Bevis-Carver discussed the [Sanitary Sewer Master Plan](#), which was approved by City Council November 13, 2021.
- c. A major component of the 10-year Sanitary Sewer Capital Improvement Program is the Sanitary Sewer Asset Renewal program. Phase 1 inspections started in early 2021 and were completed last week. Recommendations for sewer rehabilitation stemming from Phase 1 investigations will be made in early 2022; the City is developing bid documents for sewer rehabilitation. The City is currently scoping where Phase 2 inspections will occur and will share with the Advisory Group at the next meeting. The City is developing bid documents for sewer rehabilitation.
- d. Approximately one square mile in Old Town is managed by a combined sewer system. The rest of the City is served by a separate storm and sanitary sewer system. The City is collecting and analyzing flooding data in the combined sewer area to develop alternatives for further evaluation and design (e.g., in the area of Pitt/Gibbon, etc.). The City is developing an RFQ for system-wide combined sewer modeling for release in March 2022.

**Member input:** Ms. Thuot asked if meters or depth sensors have been installed in the Pitt/Gibbon neighborhood. Ms. Bevis-Carver indicated she would check and confirm. Ms. Thuot indicated that a recently installed sensor may not be on the correct manhole. A different nearby manhole cover blows off due to the force of water during severe storm events. Ms. Waynick indicated that there is also a manhole cover in her neighborhood (Clifford/Fulton/Manning) that is blown off during severe storm events but is not being monitored. Advisory Group members and Ms. Bevis-Carver to coordinate offline to identify suitable sanitary sewer manholes for monitoring.

## 8. Staff Update: Master baseline schedule

- a. Dr. Medina showed a screenshot of the detailed schedule for the Commonwealth Avenue & E. Glebe Road and E. Glebe Road and Ashby project as an example to show how the City tracks the many steps, including technical and stakeholder engagement steps, needed to implement storm sewer capacity projects. The City will be developing similar schedules for all projects and assembling them into a baseline master schedule. The schedule is still under development and will be shared with the Advisory Group in eight weeks.

## 9. Staff Update: State and federal grant funding

- a. Mr. Maines presented recent developments with the Virginia Department of Conservation and Recreation ([DCR Community Flood Preparedness Fund](#) (CFPF) grant program. The City was recently awarded a grant to help identify “green infrastructure” projects in association with the Commonwealth Avenue & E. Glebe Road and E. Glebe Road and Ashby project. The City submitted a second grant application to fund spot improvement projects in Arlandria to help accelerate improvements in the Edison and Dale



neighborhood (the fourth large capacity storm sewer project currently scheduled for funding in FY26) [NOTE: This grant was awarded to the City in December 2021]. The City will continue to pursue funding through grant opportunities and anticipates the next request for applications to open in early 2022.

**Member Input:** Mr. Maginniss asked how long it takes for awards to be granted. Mr. Maines indicated that the initial notification was provided within three months of application [NOTE: Round 1 of CFPF was awarded in September]

Mr. Maginniss asked whether funding is allocated for maintenance of capacity upgrades. Mr. Maines indicated that as part of the budget process, the City estimates the long-term operating and maintenance cost for improvement projects and secures funding for them.

Mr. Hill indicated that given the large number of projects planned and scheduled, the Advisory Group could help support development of a corresponding revenue schedule to support projects and understand what the total cost of all projects will be over multiple years.

Ms. Waynick indicated that residents would benefit not only from understanding the total cost of flood mitigation, but also the total number of areas that the projects address and the scale of benefits. This information could also help explain additional fee raises.

Dr. Medina explained that planning costs will evolve as projects are further identified and the breadth and scope of the issues become clearer.

#### **10. Staff Update: Communications and public information**

- a. Ms. Dolasinski described recent communications efforts.
- b. **Reporters please reach out to Ms. Dolasinski directly for any questions or comments.** She can direct your questions to the correct expert.
- c. The City has been focusing on three lines of communication:
  - Flood Action Newsletter: The 4<sup>th</sup> edition was published last week. The newsletter has been redesigned with the reader in mind, including an easier breakdown, larger visuals, and a personal insight on Dr. Medina.
  - Social Media: 86% of US adults chose to get their news on digital media, and a large portion receive news from social media.
  - Video Storytelling: The City will be using more video storytelling. An example was shown to the Advisory Group of a check valve installation.

#### **11. Staff Update: Response to specific questions. The following questions were sent to the City of Alexandria by the Advisory Group in advance of the meeting:**

- a. Is Council considering additional funding from second tranche of America Rescue Plan (ARP) funding, and what projects would be considered? Would our group be consulted or able to suggest projects?
  - Per Dr. Medina, it is possible. However, the emphasis of this funding source is on human services, so it is not yet clear if funding can be provided.



- b. What funding is possibly forthcoming from the Infrastructure Bill that may be used for the stormwater utility? If so, will our group have input on how those funding resources will be allocated?
  - Per Dr. Medina, additional money will likely be available in the future, but it is not yet clear how the money will be received or awarded. The City will keep the Advisory Group updated as information becomes available.
- c. Was the funding from Congressman Beyer's community grant approved? If not, will the alleyway stormwater work proceed without it?
  - Per Dr. Medina, the grant was not funded, but the City will investigate further and likely implement this project through the Flood Action program. The construction of new inlets at Clifford, Fulton, and Manning were discussed in Neighborhood Spot Improvement update.
- d. Is mitigation work for the Douglass Cemetery in the current program, and what funding resources are available? Will our group review and comment?
  - Per Dr. Medina, the Office of Historic Alexandria and Alexandria Recreation, Parks and Cultural Activities is responsible for preserving and restoring the Cemetery. The City requested an appropriation of State funds to support these efforts as well as the investigation and resolution of significant drainage issues.
- e. Are there plans for expanded monitoring [of storm events]? What would be the use for additional data and does the benefit outweigh the cost?
  - Per Dr. Medina, the City is establishing needs and evaluating different ideas, such as installing live webcams. The City would like to integrate modeling and information systems with other agencies.
- f. Dr. Medina encouraged individuals to contact him directly as well as asking questions at these meetings.

## **12. Contributions of the Ad Hoc Advisory Group to the Program**

- a. Dr. Medina explained that the Advisory Group has the talent, skills, availability, and resources to help the City move the Flood Action program forward. This effort could also help support the Advisory Group's requirement of providing a deliverable to City Council. Dr. Medina described three ideas:
  - Project Prioritization: The Advisory Group can help prioritize projects, especially smaller spot improvements. Advisory group can help select four to five metrics used for project prioritization.
  - Floodproofing Vendor Fair: The City cannot make specific vendor recommendations as they are to remain impartial and avoid endorsement of any product or service. However, the Advisory Group could help coordinate a Floodproofing Vendor Fair at which vendors and citizens in need of services could meet. The Advisory Group could help identify vendors and products to invite to the fair and help with outreach to support community attendance. The event is being planned for Spring 2022 in coordination with Northern Virginia Regional Commission.
  - Alexandria Flood Resilience Plan: The City developed a preliminary plan that met the DCR requirements to apply for CFPF grant money. However, this preliminary document needs to be updated to a formal Resilience Plan that will serve as a



roadmap to implement the flood mitigation program into the future. The Advisory Group could provide input on what a flood resilient City could look like based on what other cities have done.

**Member Input:** Mr. Sands indicated the desire to have an overall understanding of what resources are needed to mitigate flooding in the City. Mr. Sands wants to understand the value at risk in the City under different storm events. This could be a foundational element of the Flood Resilience Plan and project prioritization. Mr. Sands understands this effort will take time to develop.

Per Dr. Medina, FEMA has established methods for estimating flood risk. The benefit of flood risk mitigation is the difference between the flood losses with and without the mitigation project, that is, the damage avoided. The City is doing this analysis for individual projects. Projects with favorable cost-benefit ratios are more likely to receive grant funding.

Councilmember Chapman would like to find a way for the Advisory Group help the City better support residents before or after large storm events when they need assistance. Councilmember Chapman would like to see a vendor list on a website even before the Vendor Fair. Dr. Medina agreed that residents should feel empowered to protect their properties. Per Mr. Maines, the City recognizes the need for added communication and is increasing their outreach to let residents know about resources. As a precedent, the City has a website list of qualified vendors for Stormwater BMP maintenance. Mr. Maines also mentioned the matching grant fund from the City to assist residents in protecting their properties. The City is considering different types of credits, is pointing owners of larger buildings towards the Stormwater Utility Fee credit and is evaluating metrics to help support different splits for grant fund matching.

Ms. Waynick would like to understand the existing tools at the City's and Advisory Group's disposal (such as monitoring) to understand the flood problem. The Advisory Group would also like to better understand common stormwater solutions, such as how a check valve works, so the meeting content is more understandable and can more easily be transmitted to other residents. This information can be conveyed in a reference document and does not necessarily have to be presented.

Ms. Waynick would like to develop a one-page summary of issues and needed services to brief potential vendors.

Ms. Waynick would like to increase Advisory Group presence and advocacy at the State level. The Advisory Group and residents could go to Richmond to support various bills and funding.

Councilmember Chapman is planning a day down in Richmond for residents and will share information within a week.



All Advisory Group members, please send a few sentences to Mr. Maginniss on any additional ideas for supporting the Flood Action Program. Mr. Maginniss will compile for discussion at the next meeting.

Mr. Hill is concerned that the projects identified so far represents just the “tip of the iceberg”. He would like to understand the total scope and scale of the City’s long term flood problem. Mr. Hill wants to educate the City and residents and figure out a long-term plan.

Mr. Maginniss indicated that the Advisory Group does not have a clearly defined goal and cannot ensure everyone will be “flood free” in the future. He emphasized the need for balance between cost and benefit and wants to make sure solutions are affordable to the community. Mr. Maginniss would like the Advisory Group to work towards better defining their goals. Mr. Hill indicated a goal could be to give the City choices for spending and benefits.

### 13. Questions and comments

- a. Ms. Waynick asked if the Capacity Timeline shown during the meeting shows the calendar year or fiscal year. Dr. Medina clarified it shows calendar year.
- b. Ms. Waynick saw a flooding FAQ on the Flood Action website for four types of flooding. Ms. Waynick asked whether flooding due to storm drains backups is considered flash flooding or should be considered a fifth type of flooding? Dr. Medina clarified that storm drain backups is grouped under flash flooding.
- c. Mr. Drudi expressed that wherever there is flooding in the City that poses a danger to life or property, the City should fix it. He indicated grant funding should be used wherever possible. He indicated the Advisory Group needs a plan within three years to fix flooding issues. Mr. Drudi expressed that there was a large flooding event from the Potomac River six weeks ago. The Douglass Cemetery flooded and headstones were damaged. Mr. Drudi believes fixing flooding in the cemetery is within the purview of the Advisory Group and would like the Advisory Group to recognize that different flooding issues and areas of the City are within the Advisory Group purview. As mentioned earlier, this project is being addressed by OHA.
- d. Councilmember Chapman provided support for the idea that the Advisory Group’s focus should be on all types of flooding, including both inland and coastal flooding.
- e. Mr. Drudi does not support all 11 of the City’s top large capacity projects and the prioritization applied. He indicated Pitt/Gibbon is being inundated with sewer water during flood events. Mr. Drudi asked if anyone has tested the water during flood events and whether water in Pitt/Gibbon is more contaminated than floodwater in other parts of the City. Mr. Drudi indicated Pitt/Gibbon should be given higher priority given the health risks of exposure to sewer backup. Mr. Drudi would like the City to consider a stormwater tunnel in Pitt/Gibbon in addition to the AlexRenew tunnel. Per Dr. Medina, the City recognizes that sewage is mixing with floodwater. The City is working on tidal flooding and multiple other types of flooding, all of which is interrelated to the issue of sewer backups and overflows. Per Ms. Bevis-Carter, the AlexRenew tunnel mitigates combined sewer overflows into the Potomac River but will not solve the sewer backup problems at Pitt/Gibbon. The solution for Pitt/Gibbon will likely entail larger pipes and



underground storage. The sewer backup issue in Pitt/Gibbon is resulting from a lack of capacity locally.

- e. Ms. Thuot indicated that Pitt/Gibbon is considered a spot project, but that there should be a difference in prioritization of projects between sewage flooding vs. stormwater flooding. In addition to the combined sewer system, this area is also served by a separate storm sewer system known as the Tanyard Ditch. Per Ms. Thuot, Pitt/Gibbon has flooded four times in the last year. The sewers backup into homes and the roadways have surface flooding. There is an elementary school in the area. Residents need to wade through the floodwater to protect homes and prevent cars from splashing into homes. The health impacts are not known. Pitt/Gibbon was not included in the CASSCA study because it is in the combined sewer area and evaluations and projects could take years to implement. City staff are currently working to develop a model of the combined sewer area and there is an active study ongoing to identify potential solutions to the flooding in the Pitt/Gibbon area.
- f. Mr. Drudi indicated that there is a perception that the City does not care about sewers and pollution given the State implemented a consent decree for the AlexRenew Tunnel project. Mr. Drudi emphasized that Pitt/Gibbon should be prioritized for impacts from sewer backups and asked again whether testing should be performed by the City to detect the presence of sewage. Per Dr. Medina, the City is currently staffing projects and doing evaluations in the combined sewer area of the City.
- g. Ms. Waynick clarified that sanitary sewer backups are not just impacting several blocks in Old Town. She explained there are sanitary sewer issues in other parts of the City that should also be prioritized. I&I (inflow and infiltration) into the sanitary pipes is causing sewer backups in the separated sewer system areas. Residents are having to put one or more backflow preventers on their sanitary sewer lines. Flood insurance often does not cover sanitary sewer backups unless there is a special sewage rider. Per Ms. Waynick, if residents use the rider more than twice, they often get dropped from their insurance. Florida has worked to help residents with repeat hurricane insurance loss. California has worked to help residents with repeat fire insurance loss. FEMA insurance rates have been raised since there have been so many claims in specific areas; however, FEMA will not drop individuals due to repeat flooding, continued Ms. Waynick. Handling the crisis of wading in sewage/flood water and the aftermath with insurance is traumatic for residents and is something the Advisory Group and City should help with. Dr. Medina stated that everyone in City staff understands the concern and emphasized that the City is working towards solutions. The City has a web page devoted to FEMA Floodplains and flood insurance: [Alexandriava.gov/floodmaps](http://Alexandriava.gov/floodmaps)
- h. Councilmember Chapman indicated that in parallel with specific projects, the City and Advisory Group should consider a holistic approach that accounts for different forms of flooding, how we support community members, and legal considerations.
- i. Mr. Maginniss emphasized the need to consider public health as a high priority.

#### **14. Adjourn**

- a. Meeting adjourned at 8:55pm
- b. Motion: Brian Sands





c. Second: Katherine Waynick

## Meeting Chat Transcript

From Laura Bendernagel to All Panelists 07:00 PM

Hi all, I'm on, just FYI, but I don't think I can chime in verbally.

From Christine Thuot to All Panelists 07:29 PM

Hi Erin, please let me know how to email you on your City contact email. I'll forward you the manhole information. Thank you again for the attention to Pitt & Gibbon.

From Erin Bevis-Carver to All Panelists 07:30 PM

I can be reached at [erin.beviscarver@alexandriava.gov](mailto:erin.beviscarver@alexandriava.gov)

From Christine Thuot to All Panelists 07:30 PM

Thank you!

DRAFT