



City of Annapolis Stormwater Program Update

ENVIRONMENTAL MATTERS COMMITTEE

MAY 12, 2022



Stormwater Program Background



- The Federal Clean Water Act (CWA) of 1972 established the National Pollutant Discharge and Elimination System (NPDES) program.
- NPDES is a comprehensive national program designed to eliminate sources of stormwater pollution that adversely affect the quality of our nation's surface water bodies.
- NPDES requires cities to implement controls that will prevent harmful pollutants in runoff from sheet-flowing into local water bodies.
- In Maryland, the Maryland Department of the Environment (MDE) is delegated to administer all NPDES stormwater permits.



Stormwater Program Background



- Annapolis has a Phase II NPDES permit which is issued to municipalities with populations less than 100,000.
- The City's General Permit requires compliance with the Chesapeake Bay Restoration requirements to address the Chesapeake Bay TMDL reduction goals established by U.S. Environmental Protection Agency (EPA) for nitrogen, phosphorus, and sediment impairment.
- A TMDL (**Total Maximum Daily Load**) is an estimate of the maximum amount of an impairing substance or stressor (pollutant) that a waterbody can assimilate without violating water quality standards.
- These goals require the City to implement stormwater management measures to treat 20 percent of the currently untreated impervious areas.
- EPA set 2025 as the year to achieve the final target loads.



Stormwater Program Background

- The MS4 Permit has six Minimum Control Measures that the City has to comply with to be in compliance:
 - **MCM 1 – Public Education & Outreach** - Municipalities are required to provide educational material about stormwater to four audiences (residents, industry, commercial, and construction). The permit requires 2 messages for each audience during the five year permit term.



Stormwater Program Background

- The MS4 Permit has six Minimum Control Measures that the City has to comply with to be in compliance:
 - **MCM 2 – Public Participation** – Municipalities are required to at least annually provide an opportunity for the public to participate in the development/implementation of their Stormwater Management Program (SWMP).



Stormwater Program Background

- The MS4 Permit has six Minimum Control Measures that the City has to comply with to be in compliance:
 - **MCM 3 – Illicit Discharge Detection and Elimination** - Municipalities are required to find and eliminate sources of non-stormwater flow from their storm sewer system.



Stormwater Program Background

- The MS4 Permit has six Minimum Control Measures that the City has to comply with to be in compliance:
 - **MCM 4 – Management of Construction Site Runoff** - Municipalities are required to have an ordinance that governs management of stormwater discharges from construction sites that disturb one or more acres of land



Stormwater Program Background



- The MS4 Permit has six Minimum Control Measures that the City has to comply with to be in compliance:
 - **MCM 5 – Management of Post-Construction Site Runoff (New Development and Redevelopment)** –The goal of this measure is to manage stormwater where it falls. This control measure encourages the use of low impact design techniques and requires the retention or treatment of runoff on site using green infrastructure practices.



Stormwater Program Background

- The MS4 Permit has six Minimum Control Measures that the City has to comply with to be in compliance:
 - **MCM 6 – Good Housekeeping in Municipal Operations** - Municipalities are required to implement good housekeeping practices in municipal operations such as vehicle maintenance, open space, buildings and infrastructure. The permit requires at least annual street sweeping and optimization of catch basin cleaning.



Stormwater Program Progress



- The City is required to provide restoration projects that treat approximately 299 acres of its impervious acreage.
- As of October 2021, the City has completed 285 Acres of Restoration Projects of which 91 were completed prior to 2018.
- An additional 25 acres will be completed by 2025 – Permit end date.
- City is on track to exceed the 20% requirement of 299 Impervious Acres – likely to complete restoration projects for 310 impervious acres.
- Of 765 BMPs in the City inventory, 407 have been inspected leaving 358 BMPs to be inspected in coming years.
- City has developed its IDDE manual and adopted an IDDE Ordinance




Stormwater Program Progress

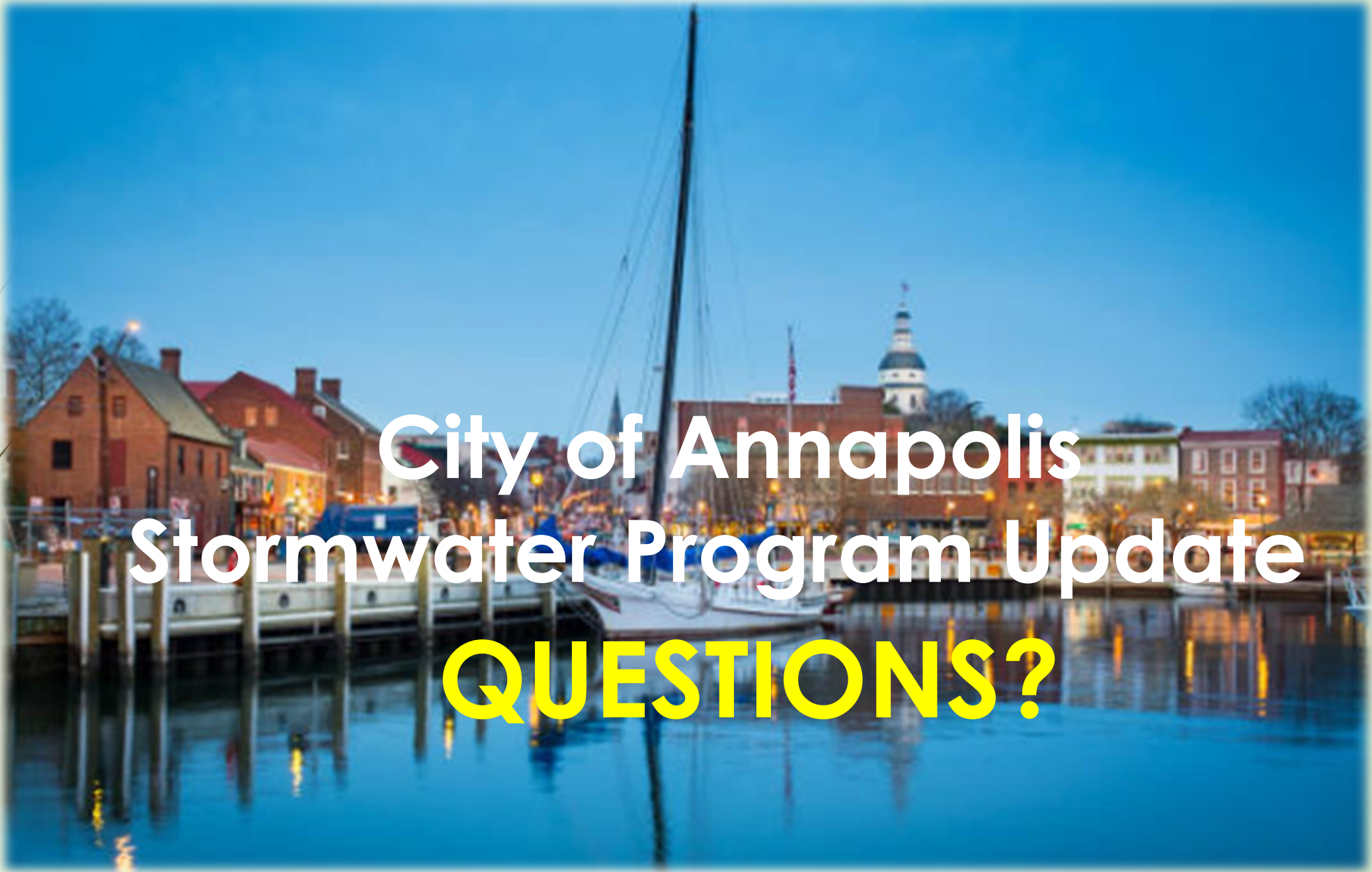


- Reorganized the Stormwater Geodatabase
- Mapped MS4 infrastructure along city-owned roads within the Spa Creek watershed
- Mapped outfalls along public and private shorelines and stream corridors within the Spa Creek watershed
- Inspected outfalls in the Spa Creek watershed
- Updated stormwater infrastructure mapping and performed IDDE inspections in the Back Creek watershed
- Performed Back Creek/Ambridge Pond feasibility study



Stormwater Program Proposed Work

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- Proposed work on the Stormwater Program in 2022 is as follows:
 - Weems and College Creek watersheds stormwater assets will be inventoried.
 - Inspection of remaining 358 BMPs.
 - Development of SWPPPs for City Facilities
 - Monitoring the Spa Creek restoration project
 - Design of South Southwood Development Stormwater Management project
 - Continuation of strategic Partnership with the Chesapeake Bay Trust to fund not-for-profit and community Stormwater Management projects

A photograph of a harbor at dusk. In the foreground, a white sailboat with a tall mast is docked at a wooden pier. The water is calm, reflecting the lights from the buildings and the sky. In the background, there are several historic brick buildings, including one with a prominent white dome and a steeple. The sky is a deep blue. Overlaid on the image is the text "City of Annapolis Stormwater Program Update" in white, and "QUESTIONS?" in large yellow letters below it. On the left side of the image, there is a red arrow pointing right, and some thin, curved lines in the background.

City of Annapolis Stormwater Program Update **QUESTIONS?**