

TO: Fiscal Affairs Advisory Commission (FAAC)

FROM: David Kinney and Peter Robertson

DATE: July 9, 2020

SUBJECT: Given the competing funding priorities, should Stormwater maintenance be funded at the proposed level?

Mindful of:

- The findings in the Stormwater Master Plan published in 2014;
- the increase in intense rainstorms in recent years;
- the flooding that occurred from the most recent superstorm on July 8, 2019;
- the damage done by flooding associated with such storms; and
- the likelihood for more severe weather events, given ongoing climate change

the County Manager proposes to undertake a major program of upgrades and maintenance to the County's stormwater infrastructure. As a down payment on this effort, he will recommend that the November bond referenda include \$50.8 million for stormwater projects. Stormwater is by far the largest single category among the general areas of the proposed bond referenda (community infrastructure, local parks and recreation, metro and transportation and stormwater).

The stormwater projects receiving funding fall into three categories:

- Capacity improvements;
- Water quality; and
- Maintenance capital.

Of the \$14.6 million in FY2021 funding for stormwater projects, \$7.8 million would go towards capacity improvement, \$4.0 million towards water quality, and \$2.8 million towards maintenance capital.

In addition to the new projects funded, the stormwater plans also include funding (as part of the maintenance category) for a Risk Mitigation and Management Project ("RAMP"). The RAMP will be an important new tool that supports vulnerability and risk assessments that will inform stormwater investments throughout the CIP cycles.

The County staff identified projects in each of the three categories (capacity improvement, water quality and maintenance capital), because all three categories need additional investment. Identification of projects began many years ago, with the preparation and publication of the 2014 Stormwater Master Plan, and continued with data gathered over the past decade on patterns of storm frequency, intensity, and duration; impacts of such storms; and demands on the stormwater system versus its current capacity. The staff has also calculated impacts across sectors, e.g., transportation, other infrastructure such as power and sanitary sewer, increased costs of maintenance and operations (cross-departmental), impairments to business activity,

influence on bankability and insurability, loss of revenue, etc. Finally, they also take cognizance of the scope of the impacts -- localized, countywide, or regional.

Discussion

The existing stormwater system in Arlington County is, to a significant degree, a relic of population growth in the County during the 1940s-60s. During much of that time, Arlington County was the fastest growing county in the nation. Stormwater regulation was limited, and the natural stream network served as the principal stormwater management system. As development increased, streams and floodplains were filled in or paved over, and fully two thirds of the streams in Arlington were encased in stormwater pipes. This meant that the stream network could no longer convey flood waters during storms. In addition, the system then could not have anticipated the intensity and frequency of storms brought about in the 21st century through human-induced climate change.

A 2014 Stormwater Master Plan found that fully one third of the stormwater system that was modeled needed additional capacity to reduce flooding risks associated with the modeled storms. The problem has only grown since that time. Climate change will continue to add to that problem. The 2014 National Climate Assessment found that the relative number of extreme weather events of heavy precipitation increased by some 40% during the first decade of the 2000s.

The historical antecedents of County development patterns, the lack of regulation during roaring population growth, the difficulty in upgrading the system over time, and the increase in severe storms were brought into acute focus on July 8, 2019, when the metropolitan region endured a once-in-200-years storm, and some four inches of rain fell in a single hour. Homes, commercial buildings, Metro stations and streets were flooded. The reaction from county residents was predictably intense. The need for additional investment in stormwater management has been known for some time, but the July 8 storm put an exclamation point on that need.

In addition to concerns about flooding damage, the County needs to manage stormwater in order to comply with federal clean water regulations. Those regulations, and the municipal separate storm sewer system ("MS4") permits issued pursuant to them, require the county to make pollutant and sediment reductions. Failure to abide by the permits could result in enforcement actions by the state or federal government. The projects that would be funded pursuant to this CIP proposal, including the RAMP, are important elements in the County's compliance with those permits

The County Manager's proposal is an important first step in addressing this combination of problems. These problems will not be solved with this one-year CIP, or the next three-to-four-year CIP, or even when we return to a 10-year CIP. The County Manager has proposed a significant investment, and if the County's stormwater management problems are to be solved, it will require significantly more investment over a long period of time, and attention and focus of County staff on addressing the issues appropriately.

Given the size of the investment proposed and its relative size as compared to other areas in the CIP, it is entirely appropriate to take a close look at the stormwater investments, and weight them against other needs in the County. We believe that this investment is important if the County is going to be able to carry out some of its most important civic functions – protecting residents from potentially life-threatening flooding and ensuring compliance with environmental protection laws and regulations.