



Legislation Text

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City of Alexandria, Virginia

MEMORANDUM

DATE: NOVEMBER 2, 2016

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: MARK B. JINKS, CITY MANAGER /s/

DOCKET TITLE:

Consideration of Options to Accelerate Combined Sewer Overflow Mitigation Efforts in the City's Long Term Control Plan Update to the Virginia Department of Environmental Quality.

ISSUE: City Council consideration of options to accelerate combined sewer overflow mitigation efforts in the City's Long Term Control Plan Update (LTCPU) to the Virginia Department of Environmental Quality (VDEQ) with specific acceleration targets for CSO-001 (Oronoco Bay).

RECOMMENDATION: That City Council take the following action related to the LTCPU for the Combined Sewer System:

1. Direct staff to make the appropriate edits to the final version of the LTCPU to address VDEQ's comments on the draft LTCPU document, and to revise the document to accelerate addressing CSO-001 consistent with Alternative A2 as described in this memo.; and
2. Authorize the City Manager to submit the revised LTCPU document to VDEQ.

BACKGROUND: The City sewer system is regulated by VDEQ and Alexandria remains in compliance with all current permit and Clean Water Act requirements. The City is actively working to reduce the combined sewer overflows that originate from about 5% of our aging sewer system and has submitted an update to our long-term control plan (the LTCPU) that proposes a multi-year, phased approach to significantly reduce the volume of sewer overflows. The draft LTCPU, which City Council authorized (see Attachment 1) after a two year-long public process culminating in a public hearing on May 14, 2016, was submitted to the VDEQ in August. It proposes a combination of storage and treatment, green infrastructure and targeted sewer separation. The LTCPU addresses outfalls CSO-002, CSO-003 and CSO-004 as those are the outfalls that VDEQ mandated to be addressed first. The cost of tanks and tunnels to address these three outfalls could be up to \$188 million. In May, City Council also directed staff to develop and provide for Council's consideration options for

accelerating the efforts to address combined sewer discharges into Oronoco Bay (CSO-001) by a date earlier than what was proposed in the Draft LTCPU.

VDEQ has completed its initial review of the draft LTCPU and provided review comments. These technical comments can be addressed by City staff in the final submittal. Once these technical comments are addressed to the satisfaction of VDEQ, City staff expects that VDEQ will approve the City's plan. However, the purpose of this item is for Council to provide guidance on the options to accelerate elements of the plan and, if Council chooses to adopt Alternative A2 as outlined below, direct staff to make this change in the final submittal to VDEQ.

DISCUSSION: Because City Council directed staff to develop and provide options for accelerating efforts to address combined sewer discharges into Oronoco Bay (CSO-001) by a date earlier than what was proposed in the draft LTCPU, this memo presents an alternative for addressing CSO-001 as an amendment to the schedule that Council approved in its framework plan in May 2016. The cost to address CSO-001 alone on an order of magnitude basis could be as much as \$130 million. The remainder of the LTCPU framework (a combination of storage and treatment, green infrastructure and targeted sewer separation, using a phased, multi-year approach) is unchanged from what is proposed in the draft LTCPU.

Attachment 2 includes a timeline that shows how the option to accelerate efforts on CSO-001 (Alternative A2) compares to what is presented in the draft LTCPU (Alternative A1). Alternative A2 accelerates efforts to address CSO-001 by:

- Committing in the LTCPU to perform a feasibility study during the upcoming permit cycle (2018-2023), 14 years ahead of current draft plan.
- Committing in the LTCPU to perform an assessment starting in 2026, six years ahead of current plan.
- Enhanced funding in the CIP for sewer separation and green infrastructure.

Alternative A2 also proposes that the City would increase its fiscal commitment to green infrastructure and sewer separation in the City's Capital Improvement Program (CIP). This provides for additional resources, beyond the commitment in the draft LTCPU, for the City to continue sewer separation and implement green infrastructure in the CSO-001 sewershed to reduce the impacts of overflows at CSO-001. There are several additional advantages to Alternative A2:

- Adding a feasibility study in the upcoming permit cycle (2018-2023) represents a 14-year acceleration and allows the City to clearly identify locations where a storage tunnel or storage tank could be constructed, preliminary costing, as well as advantages/challenges with potential sites.
- Performing the study sooner would allow the City to accelerate the assessments of CSO-001 by 6 years compared to the draft LTCPU. This assessment will include evaluation of strategies and engineering analyses to help determine what level and type of combined sewer control technology should be implemented along with the sizing, cost, and schedule of this infrastructure.
- Enhanced green infrastructure and sewer separation in the CIP will result in the accelerated reduction of combined sewer overflows at CSO-001.
- This approach leverages expected redevelopment in North Old Town to further separate combined sewers and install green infrastructure funded by the development community.

The recommended Alternative A2 would put the City in a position, following the assessment, to have the information needed, including regulatory certainty, to determine both the timing and financial commitment of

future combined sewer infrastructure at CSO-001.

FISCAL IMPACT: The planning level capital cost for the LTCPU for outfalls CSO-002, CSO-003 and CSO-004 is estimated to be between \$125 million and \$188 million (2015 dollars). It is anticipated that this infrastructure will be funded using sanitary sewer fee revenues charged to users of the system. It is estimated that the average household sewer bill will increase by approximately \$120 to \$180 per year over the implementation period compared to the current average sewer bill of approximately \$540 to \$600 per year. The cost to address CSO-001 could add up to \$150 per year to the sewer bill, meaning that the cost to address all four outfalls equate to \$270 to \$330 more in sewer bills annually, which represents an increase of about 50% in annual sewer bills for Alexandria residents and businesses. This amount reflects the City's sewer charges as well as sanitary-related charges from AlexRenew. City staff has been working closely with AlexRenew to discuss and begin evaluating funding options related to the LTCPU and opportunities to leverage the LTCPU with other projects.

If Council directs staff to consider Alternative A2, staff expects it can accommodate proposed acceleration of planning for CSO-001 by re-prioritizing projects within the existing CIP. Staff would also propose additional funding in the CIP beginning in FY 2018 for enhanced green infrastructure and sewer separation projects.

ATTACHMENTS:

Attachment 1: May 14, 2016 City Council Docket Memo (without attachments)

Attachment 2: CSO-001 Alternatives Schedule

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