



City of Alexandria

City Council Chambers at
Del Pepper Community
Resource Center
4850 Mark Center Drive
Alexandria, VA 22311

Legislation Text

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City of Alexandria, Virginia

MEMORANDUM

DATE: MAY 4, 2016

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

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

DOCKET TITLE:

Consideration of the Framework of the Combined Sewer System Long Term Control Plan Update (LTCPU).

ISSUE: Consideration of the framework of the Long Term Control Plan Update for the Combined Sewer System.

RECOMMENDATION: That City Council take the following actions related to the Long Term Control Plan for the Combined Sewer System:

1. Receive the framework of the Long Term Control Plan Update for the Combined Sewer System, as also outlined in the Draft Executive Summary of LTCPU (Attachment 1) which would be finalized for submission to the Virginia Department of Environmental Quality (VDEQ) in August, after City Council approval;
2. Thank the Ad Hoc Combined Sewer System Plan Stakeholder Group for their efforts in providing input during the development of the plan update and communicating with the public;
3. Docket the item for Public Hearing and consideration on May 14, 2016 to solicit feedback on the proposed LTCPU framework;
4. Following the public hearing approve the Long Term Control Plan Update framework; and
5. Authorize the City Manager to submit the final LTCPU document to the Virginia Department of Environmental Quality no later than August 23, 2016.

BACKGROUND: The City of Alexandria has a Combined Sewer System (CSS) that consists of

approximately 540 acres located in the Old Town area. During dry weather, sanitary wastewater collected in the CSS is conveyed to the Alexandria Renew Enterprises (AlexRenew) wastewater treatment facility. During rain events, the capacity of the CSS may be exceeded and this excess flow, which is a mixture of sanitary sewage and stormwater, is discharged directly to Hunting Creek, Hooffs Run or Oronoco Bay through the City's four VDEQ permitted combined sewer overflow (CSO) structures. CSOs from these outfalls are permitted by the VDEQ. As part of the current CSS permit, the City is required to develop and submit an update to its existing Long Term Control Plan to address the Hunting Creek Total Maximum Daily Load (Hunting Creek TMDL), which calls for significant reductions in combined sewer discharges from the combined sewer outfalls that discharge into Hunting Creek (CSO-002) and Hooffs Run (CSO-003 and CSO-004). This Long Term Control Plan Update must be submitted to VDEQ by August 23, 2016.

DISCUSSION: The framework of the Long Term Control Plan Update (LTCPU) primarily comprises the implementation of store and treat technology in three of the four outfalls in the system that discharge into Hunting Creek or its tributary Hooffs Run. Green infrastructure and targeted separation projects compliment the primary strategies. Specifically the proposed framework includes:

1. Construction of a 1.6 million gallon storage tunnel to store and treat combined sewage from the Hooffs Run (CSO-003 and CSO-004) combined sewershed. This tunnel would be 10-feet in diameter and approximately 2,700-feet in length.
2. Construction of a three million gallon storage tank to store and then send for treatment at the Alex Renew wastewater treatment facility combined sewage from the Hunting Creek (CSO-002) combined sewershed.
3. Enhanced implementation of green infrastructure as a complementary strategy citywide.
4. Continued implementation of the Area Reduction Plan, which calls for sewer separation as a condition of redevelopment.
5. Two-phased approach for Pendleton Street CSO (CSO-001) where Phase I includes implementation of green infrastructure and sewer separation while the CSO-002/003/004 projects are being implemented. Following the completion of these projects, approximately 2034, the City will begin Phase II, which includes an assessment of the effectiveness of Phase I and the planning of infrastructure at CSO-001 to address future regulatory requirements.

The proposed combined sewer facilities will reduce the number of overflows from 50 to 70 per year to 4 to 6 per year on average. It is anticipated that the construction of the Hooffs Run tunnel will be implemented first with construction being completed on or around 2025. Design and construction for the CSO-002 storage tank will then proceed, with construction being completed by 2032.

The Long Term Control Plan Update was developed with input from the Ad Hoc Combined Sewer System Plan Stakeholder Group (Stakeholder Group). This 13-member Stakeholder Group was established by City Council with the charge to provide staff with input regarding the infrastructure sizing, siting and schedule, along with input on the overall strategy of the plan in order to meet regulatory requirements. The Stakeholder Group has submitted to Council a memorandum which recommends that City Council approve the framework of the LTCP. One Stakeholder group member, Jack Sullivan, wrote an individual opinion memorandum included with the Stakeholder Group memo (Attachment 2). Although Mr. Sullivan supports what is proposed for CSOs -002/003/004, he believes that the LTCP framework should go further in addressing overflows at CSO-001. In

addition to supporting the LTCPU framework, the Stakeholder Group recommended the City consider the following:

- Engage other City departments and stakeholders early in the process of implementing the LTCPU to avoid conflicts and influence coordination, especially as it relates to construction;
- Explore funding options for implementing the LTCPU to avoid additional debt as part of the City's CIP; and
- Look for opportunities to accelerate the implementation of the LTCPU to meet environmental goals sooner if it can be done in a fiscally responsible manner and so as not to jeopardize the ability to stay in permit compliance.

Staff held public meetings and provided outreach to neighborhood and civic associations, along with Boards and Commissions, in order to inform and receive input from the community. City Staff also assembled an expert peer review panel, comprised of public works directors of other combined sewer communities, to review the proposed LTCPU and provide feedback. Panel meetings were held May 2015 and March 2016. The LTCPU has been coordinated with other stakeholders, including Alexandria Renew Enterprises (AlexRenew) and VDEQ. AlexRenew has expressed support for the proposed LTCPU (Attachment 3a). In addition, the City also received a letter from the National Park Service (NPS) in which they express their opinion with respect to the proposed tank installation near Outfall 002 towards the end of Royal Street. NPS does not support locating the proposed tank on National Park Service property, Jones Point Park, (Attachment 3b). The Environmental Policy Commission sent a letter supporting the LTCPU, emphasizing their support for increased green infrastructure and trees within the CSO area, and that the City should identify opportunities for public private partnerships and incentives to help mitigate CSOs (Attachment 3c).

FISCAL IMPACT: The planning level capital cost for the LTCPU is equal to \$125 million to \$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 \$10 to \$15 per month over the implementation period compared to the current average sewer bill of approximately \$45 to \$50 per month. 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 including an update to the City's approved Sanitary Sewer Master Plan.

ATTACHMENTS:

Attachment 1: Combined Sewer System Long Term Control Plan Executive Summary

Attachment 2: Memo from Ad Hoc CSS Plan Stakeholder Group to the City Manager

Attachment 3a: Letter from AlexRenew Board of Directors

Attachment 3b: Letter from National Park Service

Attachment 3c: Letter from Environmental Policy Commission

Attachment 4: Presentation

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