Thomas A. Faha  
Regional Director  
Department of Environmental Quality  
Northern Regional Office  
13901 Crown Court  
Woodbridge, VA 22193  
Via email at Thomas.Faha@deq.virginia.gov

Re: City of Alexandria Long Term Control Plan Update

Dear Director Faha,

Please accept the following comments on behalf of Potomac Riverkeeper Network (PRKN) regarding the City of Alexandria’s Long Term Control Plan Update ("LTCPU” or “Plan Update”). Over the past two years, PRKN and the general public have expressed growing concern at the fact that Alexandria’s plan to deal with sewage discharges from its outdated combined sewer system fails to address half of the roughly 150 million gallons a year of untreated sewage that is dumped into the Potomac and its tributaries annually. This is because approximately 70 million gallons of raw sewage is discharged from a single outfall (Outfall 001) into the Potomac from Alexandria every year, and this discharge is completely ignored in the city’s LTCPU.

For the reasons outlined below and in our October 21, 2016 letter to DEQ¹, PRKN reiterates our request that the Department of Environmental Quality (DEQ) formally solicit public comment and schedule a public hearing on the Plan Update, and review and respond to public comment prior to making any determination to approve or deny the LTCPU. The need for informed public input is now more critical than ever, due to the fact that Alexandria officials submitted a revised LTCPU to the Department of Environmental Quality (DEQ) in early December, in response to DEQ's comments and request for additional information.² Alexandria officials have not solicited public comment on the revised LTCPU, nor has DEQ.

¹ Included hereto as Attachment A.
² Alexandria’s revised LTCPU is now posted on the city’s website, where it is acknowledged that the City revised the Plan Update and took action at the City Council level to respond to public concerns about Outfall 001’s raw sewage discharges into Oronoco Bay. However, the city has not presented the revised Plan Update at a public hearing or otherwise solicited public comment on it. See https://www.alexandriava.gov/Sewers, last accessed December 16, 2016. DEQ’s October 20, 2016 letter to Alexandria is included hereto as Attachment B.
leaving the public no better off than they were in August 2016, when Alexandria submitted its original Plan Update.

The Public Participation Process Followed by DEQ and Alexandria is Inadequate

PRKN has received your December 19, 2016 response to our October letter, and note that it fails to respond directly to our concerns regarding the fact that the public has not had an opportunity to provide feedback directly to DEQ as the permitting decisionmaker. Nor does your letter address the lack of any written, formal response to comments from the City of Alexandria or DEQ during the city's public participation process in 2016. In the absence of a written response, it should not be a surprise to either entity that the public and PRKN doubt that Alexandria officials and DEQ took their concerns seriously. On the contrary, it is logical to assume that Alexandria and DEQ have largely gone through the motions, checking off the regulatory requirement to hold public meetings off their list, and proceeding with a plan that, as noted repeatedly, will not address the 70 million gallons of sewage pollution emanating from Alexandria’s waterfront annually into the Potomac River for at least several decades.

Your letter also notes that DEQ regulations do not require public notice of certain permittee submissions to the agency. While this is generally true, you fail to acknowledge that DEQ has the authority and discretion to solicit public comment on a permit condition, particularly when, as in this case, the condition in question will determine Alexandria’s actions over the next fifteen to twenty years to reduce raw sewage discharges from Outfalls 002 – 004. Once the LTCP Update is approved by DEQ, the public will not have another opportunity to weigh in. DEQ also has the authority to reopen or modify a VPDES permit at any time, to make changes in response to new information or conditions that warrant revision or potential revocation of a permit. In light of the fact that Alexandria’s own water quality monitoring data shows repeated violations of state bacterial standards in Oronoco Bay, it is incumbent upon DEQ to reopen Alexandria’s current Combined Sewer System (CSS) permit and require city officials to immediately develop a plan to eliminate or minimize sewage discharges from Outfall 001 into Oronoco Bay. Waiting until late 2017 to “assess” Outfall 001’s pollution in the next version of the city's CSS permit is unacceptable, and demonstrates DEQ and the city’s abdication of responsibility to enforce the Clean Water Act and State Water Control Law in order to protect the environment and public health.

The LTCP Update Fails to Reduce Sewage Pollution to Prevent Ongoing Contamination of the Potomac River

In addition to our concerns about inadequate public participation, PRKN offers the following comments on the LTCPU itself, and the city and DEQ’s failure to address ongoing dumping of untreated sewage from Outfall 001 into the Potomac River in the Plan Update.
To be clear, the LTCPU does not comply with the Clean Water Act or EPA’s CSO Control Policy, and should be rejected by DEQ. The City of Alexandria should be required to comply with federal and state law, and develop a LTCPU that includes the reduction or elimination of untreated sewage discharges from all outfalls, including Outfall 001, and an implementation schedule that requires completion of all CSO system upgrades by 2027. City officials and DEQ have been aware of the requirement to address combined sewer overflow pollution (CSO) since the early 1990s, yet the city has failed to develop a plan to reduce this sewage pollution until 2016. Under the city’s preferred timeframe, Outfalls 002-004 won’t be addressed until 2035, and the elimination or minimization of discharges from Outfall 001 would not happen until the 2040s. In the meantime, Alexandria’s four sewage outfalls dump approximately 150 million gallons of raw sewage and polluted stormwater into the Potomac and its tributaries every year. This illegal pollution is an embarrassment to the city and DEQ, and should be considered an outrage by residents of Alexandria, the self–proclaimed “Eco-City” on the Potomac.3

Prior to development of the 2010 TMDL for Hunting Creek, discharges of raw sewage from Alexandria’s CSS system were governed by a 1999 LTCP approved by DEQ and EPA.4 Under this plan, Alexandria was only required to implement a series of best management practices referred to as the “Nine Minimum Controls” under EPA’s CSO Control Policy.5 Implementing the 9 Minimum Controls is meant to be the first step by communities with CSO systems, and is typically followed by the development of a Long Term Control Plan that includes commitments for infrastructure improvements to significantly reduce or eliminate CSO pollution and improve water quality. In this case, Alexandria apparently proposed to DEQ that merely implementing these controls, in lieu of actually reducing CSO discharges, would be sufficient to bring the city into compliance with the Clean Water Act and EPA regulations.

Alexandria proposed using the “demonstration approach,” by which the city would seek compliance with regulatory standards through water quality monitoring of the outfalls and receiving water.6 EPA and DEQ also allow permittees to use the “presumption approach” which essentially requires that, in order to comply with applicable water quality

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3 City officials partnered with Virginia Tech to develop plans to become an “environmentally sustainable” city by 20130. While the city’s Environmental Action Plan includes a goal of studying CSO pollution, the 2015 Progress Report contains no mention of CSO pollution reduction efforts, or improving water quality generally. The city’s Action Plan and Progress Reports can be found here, https://www.alexandriava.gov/Eco-City

4 The 1999 LTCP can be found at https://www.alexandriava.gov/uploadedFiles/tes/oeq/info/2%20%20COA%20CSO%20LTCP%2001_1999.pdf

5 EPA Guidance for the 9 Minimum Controls can be found here, https://www3.epa.gov/npdes/pubs/owm0030.pdf

The Controls include measures such as maximizing flow to the wastewater treatment plant, optimizing operations and maintenance practices, eliminating CSOs during dry weather, and providing adequate public notification of CSO events.

standards, a permittee must significantly reduce its CSO discharges to only 4 per year. In Alexandria’s case, city officials adopted this latter approach in their LTCP Update to address raw sewage discharges from Outfalls 002-004. According to PRKN’s review of Alexandria’s permits and 1999 LTCP, discharges from Outfall 001 are still governed by the 1999 LTCP, utilizing the demonstration approach.

Under the demonstration approach, Alexandria conducted water quality monitoring of Oronoco Bay under its previous CSS permit, from 2007-2012. Virginia has designated all waters in the state as suitable for fishing, swimming, boating, etc., and set enforceable water quality standards that dictate how much bacteria can be present in a waterbody before it becomes unsafe for primary contact recreation, e.g. swimming and human powered boating. Oronoco Bay, the receiving water into which Outfall 001 discharges, is an embayment of the Potomac River and thus is Virginia state waters. E.coli is used as the indicator pathogen to measure bacterial pollution in state waters. State standards require that e.coli levels do not exceed a monthly geometric mean of 126 CFU/100 ml. If there is insufficient data to calculate a monthly geomean, an alternative standard applies, in which no more than 10% of the samples can exceed 235 CFU/100 ml.

Based on the water quality monitoring data found in the 2013 DEQ Fact Sheet for the city’s CSS Permit, Alexandria conducted sampling in four locations in Oronoco Bay, during spring and summer months, roughly once a week from 2008-2012. Using the 235 CFU/100 ml standard, an analysis of sampling results shows that 51% of the water quality samples collected over this time period exceeded the bacterial standard, rendering Oronoco Bay unsafe for human contact. Of those violations, 64% occurred on days when Outfall 001 was discharging sewage, or had discharged it within the preceding 24 hours. The remaining discharges occurred on days marked “Routine” in the sampling data spreadsheets. It is unclear whether any of these were the result of dry weather discharges from Outfall 001, or sewage discharges from other sources.

Regardless, it is clear that water quality in Oronoco Bay was unsafe for human contact over 50% of the time during the spring, summer and fall bathing season from 2008-2012. On a majority of those days, Alexandria’s CSS system was dumping untreated sewage into the Bay, undoubtedly causing or contributing to the pollution of the Potomac and putting public health at risk. It is also clear that discharges of untreated sewage from Alexandria’s CSS, specifically Outfall 001, violated the bacterial water quality standards that apply to Oronoco Bay. If the stricter standard of 126 CFU/100 ml were used, the percentage of samples exceeding safe standards would be even higher.

DEQ removed the requirement to monitor Oronoco Bay from Alexandria’s current CSS permit, leaving only a requirement that each of the four CSO outfalls be sampled quarterly, one per year, on a rotating basis. Outfall 001 was last sampled in 2014, and will only be sampled again in 2018. Based on PRKN’s review of the LTCP and CSS Permit, it

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7 Id. at 3-7.
8 See Appendix C of DEQ’s August 2013 Fact Sheet for VPDES Permit VA0087068, included hereto as Attachment C, pgs. 46-50.
10 Id.
11 Id.
12 Id. at Note 7. See Attachment 6, .pdf pg. 45 of the Fact Sheet for the map of sampling locations.
does not appear that any further sewer system improvements were made since sampling in Oronoco Bay concluded in 2012. Therefore, PRKN assumes that the frequency and volume of untreated sewage discharges, and resulting contamination of Oronoco Bay, have continued from 2012 to the present day unabated.

This sampling data is undisputed, and clearly demonstrates that Alexandria is not in compliance with the 1999 LTCP or its current CSS permit. As noted above, DEQ must reopen the CSS permit and require Alexandria to develop a LTCPU that addresses all the city’s sewage discharges, and ensures that they will be eliminated or minimized in a reasonable timeframe to improve water quality and protect public health.

PRKN also commissioned a technical expert to review Alexandria’s LTCPU and provide its objective analysis of the Plan’s sufficiency for addressing sewage discharges from Outfalls 002-004.13 That report, by Randall Grachek of Newfields, LLC, concluded the following, based on the limited technical information found in the LTCP Update;

- Based on recent rainfall data, the storage tunnel for Outfalls 003 and 004 are too small to reduce sewage discharges to the required 4 per year – the city’s own analysis indicates at least 10 CSO events on average per year due to storm events with greater than 1.0 inch of rainfall. This would violate EPA’s presumption approach for complying with Clean Water Act requirements for CSO pollution.
- The 3.0 million gallon storage tank proposed for Outfall 002 suffers from a similar deficiency. Based on the same rainfall data, the tank would not be effective in limiting CSO discharges to 4 per year – the analysis shows that at least 10 CSO events would continue to occur, on average, based on rain events of more than 1.1 inches. This would violate EPA’s presumption approach for complying with Clean Water Act requirements for CSO pollution.
- The use of 1984 as the typical rainfall year for determining the frequency of future sewage discharges is inadequate and misleading, because it fails to account for the larger size and duration of storms during more recent years (1994-2013), thereby deliberately underestimating the number of untreated sewage discharges that will continue to occur once the storage tunnels and tanks have been completed.
- Alexandria’s proposal to stage the construction of the storage tank and tunnel over 19 years is completely unreasonable, and will fail to achieve any meaningful reduction in sewage pollution in the near future. For example, the construction of the storage tunnel for Outfalls 003-004 extends over 9 years, to build a tunnel less than 3000 feet long. This works out to only 1.2 feet of tunnel construction per day.

Based on this analysis, PRKN urges DEQ to require Alexandria to redo its assessment of tunnel and tank sizes, utilizing more current rainfall data that accurately reflects realistic

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13 Evaluation of City of Alexandria Virginia Plan for CSO Management Strategy, Randall Grachek, P.E., Newfields LLC, October 21, 2016, attached hereto as Attachment D.
projections of future precipitation. In order to ensure compliance with the Clean Water Act and EPA’s CSO Control Policy, DEQ is required to ensure that Alexandria’s LTCPU meets the requirements of no more than 4 CSO discharges per year, in order to comply with all applicable water quality standards and protect the environment and public health. Alexandria’s current plan utterly fails to meet these requirements, and must be rejected by DEQ.

Please do not hesitate to contact me by e-mail, phillip@prknetwork.org, or phone, 202-556-2930 if you have any questions regarding these comments.

Respectfully,

Phillip Musegaas
Vice President
Programs and Litigation

Cc: [via electronic mail]
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