March 10, 2017

Phillip Musegaas
Vice President of Programs and Litigation
Potomac Riverkeeper Network

Re: Review of Letter to Mr. Yon Lambert, Director of Transportation and Environmental Services for the City of Alexandria, Virginia from John McGettigan of Greely and Hansen LLC regarding the schedule for the implementation of CSO-001 improvements.

Dear Mr. Musegaas:

I have reviewed the subject letter in the context of the proposed CSO management plan for the City of Alexandria. In my opinion, meeting a July 1, 2025 deadline for compliance with EPA policy, indicated in Senate Bill 898[1], is attainable for CSO-001. It is assumed, based on review of City of Alexandria documents, that a storage and treat solution would be implemented, requiring the installation of storage tanks; collection and distribution piping; and appurtenant systems to provide adequate storage of combined sewer overflows so that these flows can be treated in the existing Publically Owned Treatment Works (POTW) during off-peak flow hours.

The above mentioned letter to Mr. Lambert, in context with the stated intent of actions above, indicates the need for the following timeframes for CSO-001 compliance:

- 2 years for planning;
- 1-2 years for NEPA work and easements;
- 1 year for facility plan and geotechnical studies;
- 2 years for design;
- 0.5 years for construction procurement;
- 2-4 years for construction; and
- 0.5 years for start-up and commissioning.

In total, the City's consultant is suggesting that it will take 6.5 to 7.5 years before construction would begin on the CSO-001 improvements and up to 12 years for completion of the project and ultimate compliance.

It is my opinion that from an engineering, construction, and regulatory review standpoint, the schedule proposed is inordinately long with all of the tasks indicated in the letter presumed to be performed in series. The first 2 tasks can be performed in parallel within a 2 year timeframe sufficient to plan, obtain easements, and perform NEPA or other regulatory work. Facility planning and design, as well as geotechnical studies can be performed in parallel within a 1.5 year timeframe.

The construction timeframe for any project is usually a function of the requirements of the construction contract documents based on funding issues and not necessarily what is the most expedient pathway. While the extent of the tank/piping system is not certain at this point, it should not take more than 2 years to complete construction as there are many examples of public works projects which are far more extensive than a CSO control system that are completed in a shorter timeframe.

The time frames suggested in the letter for construction procurement and start-up/commissioning seem reasonable.

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1 The final text of SB898 that passed both Houses of the Virginia legislature and is before the Governor can be found here, [https://lis.virginia.gov/cgi-bin/legp604.exe?171+ful+SB898ER](https://lis.virginia.gov/cgi-bin/legp604.exe?171+ful+SB898ER)
Based on a more streamlined schedule with certain activities performed in parallel, the overall timeframe for compliance with EPA policy should be approximately 6.5 years. If work commences before July 2017, a completion date in the early part of 2024 is realistic, consistent with the intent of the legislation.

Please call me at 404-347-9050 if you have any questions.

Sincerely,

NewFields

Randall Grachek P.E.
Partner