

ATTACHMENT 1

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July 22, 2021

Ann Straut, Sanitary Engineer 3
State of CT DEEP
Bureau of Water protection & Land Reuse
79 Elm Street
Hartford, CT 06106

SUBJECT: Facilities Plan for West and East Side Wastewater Treatment Plants - Bridgeport, CT
Comments on the Environmental Impact Evaluation – May 2021

Dear Ann,

Wright-Pierce continues to assist the Trumbull WPCA with evaluating alternatives for a more fair and equitable arrangement to treat their wastewater. An important part of this task is to understand how Bridgeport operates their wastewater treatment system, which directly relates to how Bridgeport charges Trumbull for service and how those charges may change in the future.

The Bridgeport WPCA has recently completed a Facilities Plan to address Consent Orders issued by CT DEEP in relation to their WPCF and Combined Sewer Overflows (CSOs). The report entitled, Water Pollution Control Authority, City of Bridgeport, CT – Facilities Plan for the West and East Side Wastewater Treatment Plants, presents recommended modifications needed at both WPCFs in Bridgeport (the Project).

The Project includes modifications to improve the reliability and capacity of the current WPCFs to meet the permit limits and reduce the volume of untreated wastewater entering Bridgeport Harbor and Long Island Sound because of CSOs. Implementation of the recommended improvements involves funding from the CWF managed by CT DEEP and that makes the Project a “state action”.

The Environmental Impact Evaluation (EIE) is performed to provide a detailed analysis of the potential environmental impacts of the activity being proposed, and partially funded, by the sponsoring state agency - DEEP.

Once Trumbull and Wright Pierce learned of the Facilities Plan, we reviewed the document to understand the impact to the Trumbull sewer users. However, Trumbull was not afforded the ability to formally comment on the recommendations. Therefore, on behalf of the Trumbull WPCA, we have utilized the comment period of the EIE to convey concerns with the Facilities Plan as it relates to Trumbull.

The Facilities Plan and EIE describe a proposed major upgrading of the two Bridgeport wastewater treatment facilities and some related collection system improvements. Below is a summary of the more significant points of concern affecting Trumbull:

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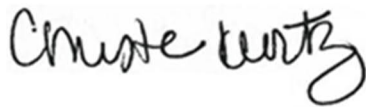
1. The provision of capacity for Trumbull wastewater flows is not based on current projections for growth in the Trumbull sewer system nor consistent with the Bridgeport-Trumbull Intermunicipal Agreement (IMA).
2. A large part of the projected costs is for facilities or facility improvements that are not used by Trumbull or are not occasioned by Trumbull flows.
3. The estimated costs for the Bridgeport project are understated because they do not include the operation and maintenance for the new facilities.
4. The proposed facilities are purported to reduce the extent of the Long Term CSO Control Plan (LTCP) by reducing the CSO volume by about 50%. The costs for the remaining portions of the LTCP are not included and are likely to be significant.
5. The Affordability Assessment excludes new O&M costs and the costs for the later CSO control work.
6. In the current IMA between Bridgeport and Trumbull, Bridgeport has agreed to support Trumbull in seeking alternative means to treat and dispose of Trumbull's wastewater. The Facility Plan should provide a more detailed cost evaluation of those alternatives to support the IMA.

There are three broad categories discussed in both the Facilities Plan and subsequent EIE on which we have provided comments. The three categories are:

- I. Treatment Capacity for Trumbull
- II. Secondary Bypass Volumes and Frequencies and Expected CSOs
- III. CSO Control Costs, Overall Costs and Cost of Sewer Service

The attached list of comments refers to the document (FP or EIE) and the page on which the noted document discusses the issue.

Sincerely,
WRIGHT-PIERCE



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George Estrada, William Mauer – Town of Trumbull
Richard Boggs, Jonathan Greene - Trumbull WPCA

Facilities Plan for West and East Side Wastewater Treatment Plants - Bridgeport, CT
Comments on the Environmental Impact Evaluation – May 2021
Prepared for the Trumbull Connecticut Water Pollution Control Authority

Below is a summary of comments prepared by Wright-Pierce on behalf of the Town of Trumbull for the following two documents:

- Facilities Plan for the West Side and East Side Wastewater Treatment Plants, prepared by CDM Smith for the City of Bridgeport WPCA, November 2020 (**noted as FP below**)
- Environmental Impact Evaluation: Facilities Plan for the West Side and East Side Wastewater Treatment Plants, prepared by SLR Consulting for the City of Bridgeport WPCA, May 2021 (**noted as EIE below**)

The comments are organized by the following three topics:

- I. Treatment Capacity for Trumbull
- II. Secondary Bypass Volumes and Frequencies and Expected CSOs
- III. Costs: CSO Control Costs, Overall Costs and Cost of Sewer Service

I. Treatment Capacity for Trumbull

EIE page 9. The EIE notes that the FP considers “the potential maximization of the sewage from Trumbull under the current contract....and the potential development of a sanitary sewer system in Monroe.” Currently, Trumbull is not considering such a connection for Monroe

EIE page 45. The EIE states that the existing facilities have capacity for accept Trumbull flows at 4.2 mgd on an average daily basis.

FP page 5-1. The discussion of the Bridgeport-Trumbull IMA requires elaboration. The 2016 IMA and related discussions have treated the 4.2-mgd wastewater flow from Trumbull as both an annual average and as a monthly maximum. This long-recognized discrepancy should be corrected in the IMA, and the Facility Plan should reflect that correction.

FP page 5-43. The section on Trumbull’s flows and future sewer plans apparently reflects discussion between CDM Smith and the Town’s Department of Planning and Zoning. The Trumbull WPCA was not consulted on its plans for extensions of the Trumbull sewer system. The Trumbull WPCA will provide Bridgeport with a summary of its current plans for sewer expansion accompanied by estimates of sanitary flow rates and I/I amount.

FP page 5-43. The section on Monroe’s sewer plans estimates a future wastewater flow of 0.36 mgd from Monroe, including both sanitary flow and I/I. The only practical way for that potential flow to reach the Bridgeport sewer system is through a connection to the Trumbull system. Currently, Trumbull is not considering such a connection for Monroe.

II. Secondary Bypass Volumes and Frequencies and Expected CSO Reductions

EIE pages 7 and 8. Tables 1-2 and 1-4 show annual average bypass frequencies of 27 per year at the West Side plant and 11 per year at the East Side plant, and the associated text states that both plants are undersized. The text on page 8 indicates that the CSO volume (1-yr, 24-hr storm) is estimated to be 49.8 million gallons.

EIE pages 14 and 18. The text states that the proposed improvements will provide full control of 7 of 19 CSOs on the west side and 3 of 6 outfall on the east side.

EIE page 20. The graph shows how the CSO volume is expected to decrease from about 50 million gallons to about 22 million gallons with the implementation of the expanded facilities. There is no explanation on the basis for the further decline in CSO volume from about 22 million gallons in 2030 to about 2 million gallons in 2040.

FP Page 5-45. Table 5.4-1 summarizes the expected increases over time of average daily, maximum daily and peak hourly flows at the West Side plant. The last column contains estimates of those flows for the recommended plan to expand the West Side plant to have a wet-weather capacity of 200 mgd. We would expect that the wet weather peak flow would extend for longer than one hour, and it would certainly impact the maximum-day flow when it occurs.

Notwithstanding the above, this table shows an increase in that peak flow from 98.3 mgd (2050 conditions without the wet-weather expansion) to 200 mgd with the expansion. This represents an increase of over 100%. It is our understanding that this increase is explicitly aimed at reducing the scope and cost of the CSO Long-Term Control Plan (LTCP).

FP Page 5-50. Table 5.4-8 summarizes the expected increases over time of average daily, maximum daily and peak hourly flows at the East Side plant. We have the same comment as above about the peak hour and maximum daily flows. This table shows an increase in that peak flow from 30.4 mgd (2050 conditions without the wet-weather expansion) to 80 mgd with the expansion. This represents an increase of over 160%. It is our understanding that this increase will sharply reduce the expected annual volume of CSOs on the east side (Figure 5.4-2), and no eastside CSO control was included in the LTCP.

FP Page 9-112. Figure 9.6-2 shows how CSO volumes are expected to decline from about 50 million gallons per year to about 22 million gallons per year once the two plants are expanded with additional wet-weather capacity. Further significant declines are shown from 22 million gallons per year in 2030 to about 2 million gallons per year in 2040.

What will cause that additional 2030-to-2040 decline? Is it the implementation of the remaining LTCP projects (West Side) and yet-unplanned CSO improvements on the east side? If so, what are the costs of those measures.

III. Costs

CSO Control Costs

EIE page 3. The City of Bridgeport WPCA submitted a report to the CT DEEP in 2011 entitled, Long Term CSO Control Plan (LTCP) and it was approved in 2018. The projected project cost for recommended plan was anticipated to be \$385 million; this value is currently estimated in the EIE at \$496 million.

EIE page 47. It is noted that a “new LTCP is likely to be necessary to properly control the remaining CSOs.....”. This indicates that the current recommendations do not address all the CSOs and that future project work is required; the timing and cost impact to the users is unknown.

FP Page 5-46. Figure 5.4-1 depicts the expected reduction in annual CSO volume associated with various increases in the wet-weather design flows at the West Side plant. At 200 mgd, the CSO volume reduction is shown to be 22.9 million gallons or about one-half the current CSO volume. Given that significant amounts of CSO flow would remain (21.5 mgd), what reduction in the LTCP costs does this represent?

FP Page 7-158. The Facility Plan updates the 2010 cost of the LTCP to \$496 million in 2020 dollars. If the LTCP did not consider CSO control on the east side, how much would an expanded LTCP (including both west and east sides) cost?

The cost to increase the West Side wet-weather capacity to 200 mgd is \$135 million, including collection system improvements. The cost to increase the East Side wet-weather capacity to 80 mgd is \$50 million including collection system improvements. The sum of these two new costs is \$185 million, or 37% of the updated LTCP west-side costs and represents the costs to “gain the full CSO benefit”.

Is the \$185 million figure the amount that Bridgeport believes will be eligible for 50% state grant? How much of the LTCP costs will remain after implementation of the recommended improvements at the two plants?

FP Page 8-4. Table 8.2-1 shows significant savings for the 200/80 alternative compared with the 90/40 alternative. If the larger expansions costs more, is the implied savings related to the phasing? Or does the 90/40 option include the LTCP, while the 200/80 cost does not contain any LTCP costs (even if some CSO measures are still needed)? This matter is of major financial consequence to Trumbull and to the average user and should be clarified.

FP Page 9-109. Table 9.5-4 summarizes the expected grant eligibility of the improvements at the two plants. What is the estimated eligibility by grant category; that is, how much of the project is eligible for 50% grants?

Overall Costs

EIE pages 14 and 18. The text states that the proposed improvements will cost \$403 to \$443 million. It should be noted that these costs do not include remaining CSO work.

FP Page 8-1. One of the assumptions in this analysis is that “only sewer and stormwater related costs are included”. Do the planned expenditures include costs for improvements to the City’s stormwater system that are unrelated to CSOs?

FP Page 8-9. It is stated that O&M costs and miscellaneous revenues are assumed to remain the same as the baseline projection. There must be significant additional O&M expenses associated with pumping power, electrical costs for disinfection and additional sludge handling. These costs add to the user fee and impact the affordability assessment.

Cost of Sewer Service

EIE page 47. The text states that debt service costs of the project are “expected to be distributed across the customer base and will be cumulative to the costs already paid by customers for sewer service”.

FP Page 8-18. For the 200/80 alternative, the Residential Indicator is shown to peak at 1.96 of MHI in FY 2030. The calculations leading up to this indicator exclude the costs of the remaining CSO measures on the west side of the City (the remaining LTCP costs), and the added O&M costs for the new facilities.

FP Section 8. Trumbull and Bridgeport have agreed that Trumbull will cease its discharge to the Bridgeport system by 2029. Other things being equal, that will reduce the Bridgeport revenues by about 17%, increase the user charges by about 20%, and increase the Residential Factor by about 20%. This scenario should be included in the Section 8 materials.